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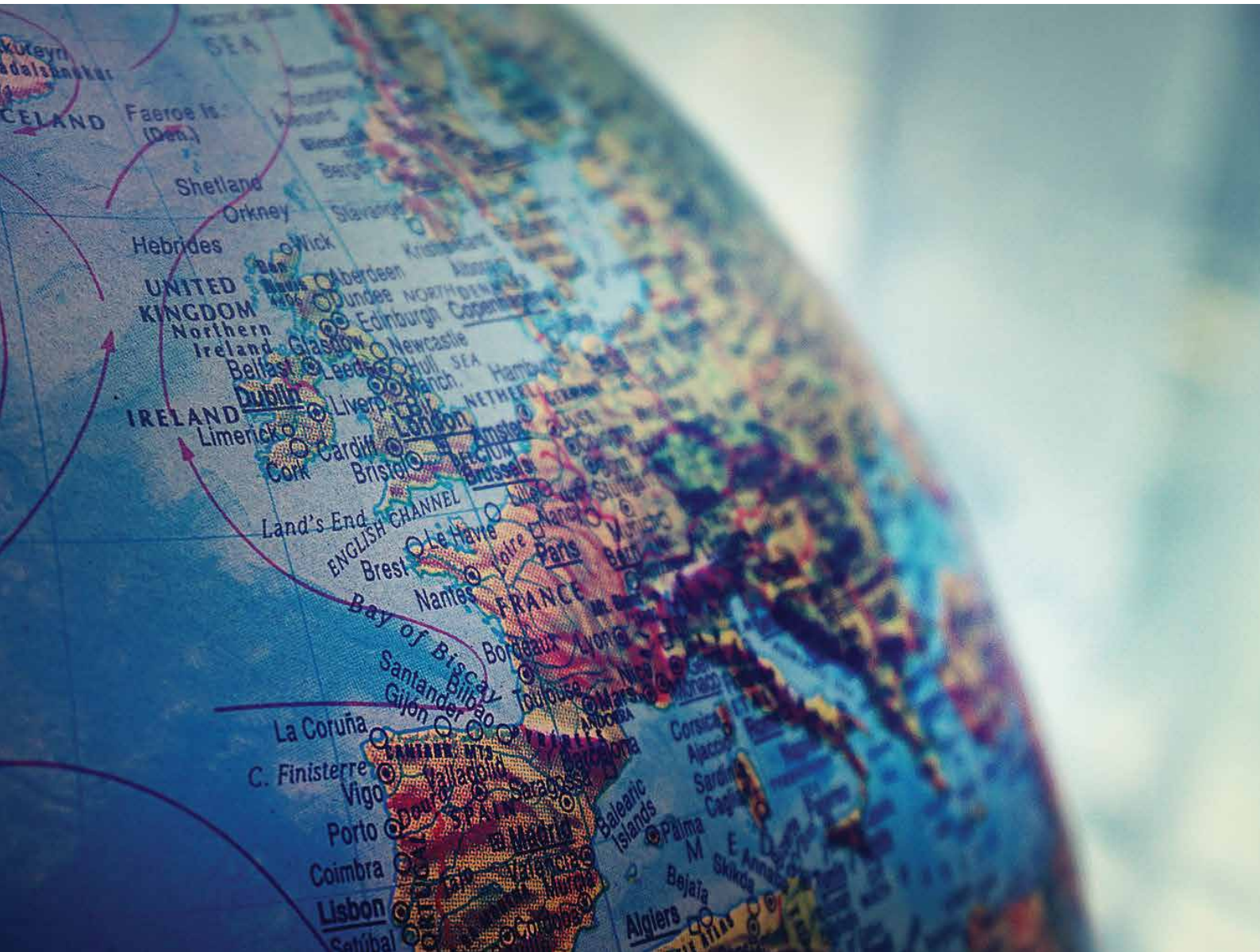
CITIZEN OF THE WORLD

GUIDELINES ON KEY COMPETENCIES BUILDING IN MONTESSORI ELEMENTARY CLASSROOM



1 CHAPTER

ABOUT THE PROJECT AND THE PROJECT TEAM

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How the idea of this project was born

The seed of this project was planted during an Erasmus project writing workshop organized by the Montessori Institute Prague. Here, us, a group of Montessori educators from different countries, came together—strangers at first, yet immediately connected by a shared experience. We quickly realized that, despite our diverse backgrounds, we faced the same challenges in Montessori Elementary education.

We spoke about the struggle to have our work recognized, about the difficulty of articulating the richness of Elementary classrooms to those who have never experienced them. We shared concerns about how to communicate the beauty and depth of Cosmic Education through competence-based learning, and we recognized the invisible labour teachers carry every day. Every conversation echoed a common theme: our teachers are doing extraordinary work, yet the world often doesn't see it.

This shared understanding—this common pain—sparked an idea. What if we could give teachers the tools, the language, and the confidence to show what happens in Montessori Elementary classrooms? What if we could help them defend their practice and demonstrate its value to the wider world? The motivation was clear: we wanted to illuminate the hidden gem of Montessori education, to make visible the remarkable growth and learning that happens each day.

Together, we crafted an Erasmus+ project application. The European Union recognized the value of our vision and awarded us funding of 60,000 euros to bring it to life. It was the beginning of a journey—born from collaboration, shared experiences, and a mutual desire to support teachers and students alike.

Our project "Citizen of the World", born from shared insight and dedication, is our way of giving back to the Montessori community—offering support, language, and practical tools to teachers, while celebrating the remarkable work happening every day in elementary classrooms across the World.

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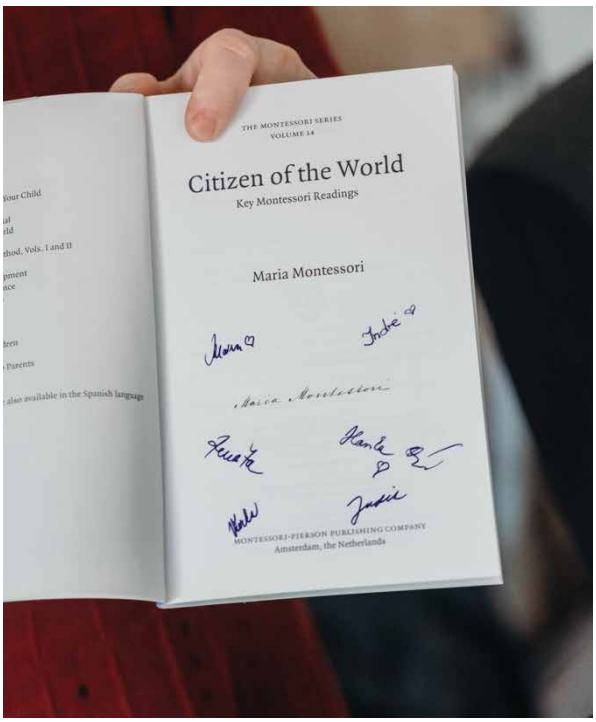
Goal of the project

In today's society, Montessori Elementary education is still often overlooked or misunderstood, seen as out of step with modern needs. Through this project, we aim to change that perception. Our goal is to reveal the true value of Montessori: a learning environment where children are nurtured into thoughtful, capable, and globally aware citizens. Here, the development of the eight key competencies outlined by the European Union—skills essential for future leaders and innovators—is not just a framework but a lived reality. Montessori Elementary classrooms have been cultivating these competencies for years, quietly preparing children to thrive in an interconnected world.

Our aim of this project is to create a valuable digital free resource for teachers and school admins that gives guidelines how European Union Lifelong Learning Competencies are incorporated into Montessori Elementary education theoretically and practically.

Our message to teachers: each day, you engage in the vital and inspiring work of shaping young minds, and we are here to support you by giving voice to your efforts, so you can feel empowered and confident in your role.

Our message to parents: have confidence in the Montessori Elementary experience—your children are cultivating the eight EU key competencies each and every day.



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Activities of the project

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Online meetings - COMMUNITY CONVERSATIONS

Where we discussed EU key competencies building in Elementary classroom with wider community of Elementary teachers and parents

We organized Eight Community Conversations:

- Cosmic Education and Key EU Competencies with *Kyla Morenz*
- The Role of invented spelling and grammar with *Madlena Ulrich*
- STEM - Science, Technology, Engineering, Mathematics competencies and Maria Montessori Science - based Pedagogy with *Veronika Kánová*
- Montessori Elementary: Cultivating Lifelong Skills for the Digital Age with *Indrė Vitkuvienė*
- Montessori Education & Citizenship - Beyond Social Cohesion with *Kavita Doodnauth*
- Montessori Philosophy and Cultural Awareness with *Allan Nguyen*
- Multilingualism in the Elementary Montessori classrooms in the context of EU key competences with *Lucie Urbančíková*
- Montessori & EU Competencies for Lifelong Learning: Entrepreneurship with *Mirka Vlčková*

They are all recorded and available as accompanying digital resource in our guidelines.

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'Citizen of the World' guidelines

They are developed by our methodological team from all project partners organisations. These guidelines are suitable for teachers, showcasing best practices in Montessori Elementary key competencies building. Every competence has own chapter with theoretical background and stories from the classroom, that shows alignment of specific EU competence with activities done in Montessori Elementary classroom.

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Online international conference *on the Elementary Child as a Citizen of the World*

Montessori Elementary Teachers in Action was an online gathering for guides working with children aged 6–12. Through keynotes, breakout sessions, and peer conversations, this conference created a safe, supportive space to connect with colleagues, reflect on common classroom struggles, and explore practical solutions.

There were 11 presentations:

- Carla Foster & Kyla Moren. **Elementary Child: Who Are You?**
- Nina Johansen. **Montessori + EU Competencies = A Path to Recognition**
- Amanda Kirchner. **Opening a new classroom: Building work habits when everyone is new to Montessori**
- Hanka Chramostova. **Collegial Collaboration & School Culture: Building Trust and Resilience in Montessori Teams**
- Indrė Vitkuvienė. **Building Bridges with Parents: Trust, Communication, and Partnership in Montessori Education**
- Kristyna Turkova. **Difficulty in Implementing Cosmic Education**
- Madara Spurava. **Collaboration between adult staff in a classroom**
- Radka Jandova. **Supporting Neurodiverse and Special Needs Learners**
- Veronika Kanova. **Balancing Montessori with National Curriculum or Exams**
- Veronika Kotulkova. **Time Management and Overwhelm**
- Vierka Machalkova. **Structure That Empowers: Systems and Routines for Montessori Success**

All presentations of conference are recorded and available as accompanying digital resource in our guidelines.

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Project official card

Project type: Erasmus+ small-scale partnership project

Project Coordinator: UAB Montessori Akademija (LT)

Identifier: 2023-2-LT01-KA210-SCH-000184526

Duration: January 1, 2024 - December 31, 2025

EU Contribution: €60,000

Partners: Montessori Institute Prague s.r.o. (CZ) , MONTE PLUS (SK) , Montessori skoly Andilek - materska skola a zakladni skola, o.p.s (CZ) , Jolly HOMESCHOOL, s.r.o. (SK)

Project card: https://erasmus-plus.ec.europa.eu/projects/search/details/2023-2-LT01-KA210-SCH-000184526

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Project team: **Montessori Akademija, Lithuania**

At the heart of Lithuania, in Kaunas and Vilnius, Montessori Akademija (UAB Montessori akademija) is more than a school—it is a place where educators, parents, and the wider local network come together around shared values: respect for each child, the nurturing of authentic Montessori principles, and the cultivation of a collaborative, supportive environment.

Since its founding in February 2019, Montessori Akademija welcomes over 120 children aged 1½ to 11 years, consistently applying international Montessori curricula across its dual locations. From the very beginning, our mission has been clear: to create a space where children can thrive in mind, body, and spirit, guided by authentic Montessori methods. Under the leadership of Indrė Vitkuvienė, whose journey from academic research to Montessori advocacy shapes every aspect of the school, Montessori Akademija blends a thoughtfully prepared environment with an emotional foundation rooted in empathy, curiosity, and freedom. Creativity, exploration, and the recognition of each child's unique pace define daily life in our classrooms.

Montessori Akademija is formally registered as both a kindergarten and Elementary school in Lithuania. The Kaunas location serves as our headquarters, while Vilnius extends our reach to more families and educators, reinforcing our community-centered approach. Montessori Akademija is also unique in Lithuania as the only school where AMI 6–12 trained guides lead Elementary classrooms. This expertise ensures that our programs faithfully follow authentic Montessori principles, while offering children rich, meaningful experiences that foster independence and collaboration.

Beyond the daily classroom, Montessori Akademija serves as a hub for learning, professional development, and collaboration. We offer short-term Montessori courses,

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lectures, and mentoring programs tailored for parents, educators, and newly established schools. Active partnerships with local universities allow us to conduct educational research and strengthen the broader Montessori ecosystem in Lithuania. Through our mentoring network, we support schools in implementing international Montessori curricula, maintaining methodological fidelity, and sharing best practices. As project coordinator for the Erasmus+ initiative “Citizen of the World: Guidelines on Key Competencies Building in Montessori Elementary Classroom,” Montessori Akademija leads the creation of free digital resources for teachers and administrators, helping schools across Europe integrate EU key competencies into Montessori education.

Montessori Akademija is more than a place of learning. It is a values-driven, community-centered educational leader, rooted in respect, collaboration, and the authenticity of the Montessori method.

Website: https://www.montessoriakademija.lt

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Project team: **Montessori School Andílek, Czech Republic**

Montessori Andílek is a school that grew out of a desire to create an environment where children learn freely, joyfully, and with respect. We are located in the heart of Prague 5 and have been offering education based on the principles of Montessori education to children aged 1.5 to 15 for more than ten years.

We believe that every child is born with enormous potential. Our role is not to fulfill this potential from the outside, but to offer children the conditions to discover what is inside them. We create a loving, safe, and stimulating environment where children learn naturally – through their own experience, cooperation, and discovery.

The history of the school began in 2008, when the Family Center was established, followed by morning workshops with children and the first group of children in kindergarten. In 2013, we launched the elementary school, and since then, Andílek has gradually grown into a vibrant community that now includes more than a hundred children aged 1.5 to 15, dozens of teachers and guides, and a broad base of parents and friends of the school. Every year, new experiences, programs, and opportunities are added.

Andílek is one of the top Montessori centers in the Czech Republic. Our entire team of teachers is trained according to the international standards of AMI (Association Montessori Internationale). We are one of only twenty schools in the world to have been selected for the AMI accreditation process – the highest possible mark of quality in Montessori education. We are also an accredited school in the Erasmus+ program, which opens the door to international cooperation and inspiration for our children and teachers. We work closely with the Montessori Institute Prague – the AMI's global training center, where future teachers from around the world are trained. Andílek is their

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training school, which means that our environment and our team meet the highest standards and we are becoming a model of practice for students and professionals alike.

Each of our classrooms is fully equipped with original Montessori materials and meets the needs of the given age group. In the toddler group (1.5–3 years), children take their first steps toward independence and learn to adapt to the group. In kindergarten (3–6 years), they find a richly prepared environment that develops their senses, language, and ability to concentrate. In elementary school (6–12 years), they learn to connect knowledge, collaborate in groups, and discover the world through projects and research activities. The adolescent program (ages 12–15) then provides a connection to practical life and teaching in the field and on the farm, where students take on responsibility, learn cooperation and management, and prepare for the next stage of their lives.

Our values are based on respect, partnership, and authenticity. We respect children as fully-fledged individuals who have the right to choose and take responsibility for their decisions. We believe that learning is meaningful when it comes from inner motivation. That is why we create an environment that gives children the opportunity to discover things for themselves, with adults acting as guides who support and inspire them. We also place great emphasis on community—we are convinced that children need not only teachers, but also a broad community of people who are role models and with whom they can share their experiences.

A rich community life is therefore part of our work. Every year, we organize about a hundred events that bring together children, parents, and teachers – from joint celebrations and excursions to educational programs and workshops. We introduce children to music, creativity, and a love of cooking from an early age. We emphasize independence, responsibility, and motivation for lifelong learning—not only in children, but also in the adults who make up the Andílka community. The school also runs a studio, a creative space that combines education with art, creativity, and community gatherings. It offers courses, workshops, and programs that expand school education and open it up to the public.

We work as a team that bases its activities on a clear strategy, shared values, and cooperation. Our vision and daily practice are based on respect, partnership, and

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authenticity. We believe that education is a shared journey where children and adults learn from each other, inspire each other, and grow together.

As a natural extension of the school, the Andílek Montessori Academy was established—a center for the continuous education of teachers, assistants, and leaders. The academy is based on the practice of the Andílek school (more than 20 years of experience) and follows the highest AMI standards. It offers advanced courses, mentoring, and practical workshops that respond to specific classroom needs. The academy emphasizes an individual approach, professional practice, and support for personal and professional growth — with the aim of improving the quality of the Montessori environment not only at Andílka, but also in a broader educational context.

Montessori Andílek is a school for life — a place where learning is a joy and where we prepare every day for the world that awaits us.

Website: https://montessoriandilek.cz

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Project team: **Súkromná základná škola Jolly HOMESCHOOL, Slovakia**

Súkromná základná škola Jolly HOMESCHOOL is a private school located at two welcoming sites in Pezinok and Viničné in Slovakia. We serve 75 children and young people aged 6–15, together with their families, in the tradition of the Association Montessori Internationale (AMI).

Our story began 11 years ago. Although the journey has not always been easy, we have moved forward with determination, hard work, and perseverance — growing steadily and with a clear vision.

Our daily educational goals are the cultivation of exemplary character, a creative mind, a global outlook, and service to humanity. Jolly HOMESCHOOL is a place where children strive to become the kindest, most thoughtful, and most capable versions of themselves. Our mission is to create an environment in which children grow into responsible future adults who will bring positive change to society.

Adolescence is a time of extraordinary energy and creativity. Our Young Community takes care of the Jolly Farm, where the special Production and Exchange program takes place. In combination with academic education, this offers adolescents a 21st-century learning experience that prepares them to become active agents of change in the world.

Since its foundation, Jolly HOMESCHOOL has been committed to building a true partnership between school and parents in the education of each child. Together, we create a rich developmental environment for children aged 6–15, where the wisdom and knowledge of the world meet courtesy, kindness, acceptance, and industrious hands that are ready to improve their surroundings.

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Our approach to education is centered on fostering and sustaining a love of learning, while deepening wisdom, kindness, a sense of beauty, and responsibility. We guide children to develop self-discipline, recognize and apply their strengths and talents, and shape their lives in ways that bring them a sense of personal fulfilment.

In the future, we would like to support others in their growth and offer opportunities to learn from our story. That is why we are proud to be partners in this Erasmus program, as learning, sharing, and connecting make us sustainable and inspire continuous innovation, collaboration, and positive change.

Website: https://www.jollyhomeschool.sk

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Project team: **Montessori educational centre MONTE PLUS, Slovakia**

MONTE PLUS is a Montessori educational center based in Bernolákovo, Slovakia, founded in 2016 by Hanka Horáková and Veronika Kánová. Our mission is to bring the authentic spirit and practice of Maria Montessori's philosophy closer to teachers, parents, and children across Slovakia — creating a community built on respect, curiosity, and lifelong learning. We focus on teacher education, parental guidance, and the promotion of Montessori pedagogy for children from birth to 18 years of age. Through our courses, seminars, and webinars, we help adults rediscover the joy of learning and understand the true developmental needs of children.

Our Mission and Vision

At MONTE PLUS, **our mission** is to empower adults to bring Montessori education to life — in classrooms, in families, and in communities. We believe that by supporting teachers and parents, we can create environments where every child can grow into a confident, responsible, and compassionate human being.

Our vision extends beyond teaching. We aim to build a strong Montessori network in Slovakia, where educators and parents collaborate to create schools and communities that reflect peace, freedom, and sustainability — the very principles Maria Montessori envisioned for humanity.

The Heart of MONTE PLUS

At the heart of MONTE PLUS lies a deep belief that education is a journey of the soul — not only of the mind. We see teachers not merely as guides for children, but as lifelong learners who grow through reflection, connection, and community.

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Each of our programs is designed to reach both the professional and the personal side of the adult — to remind them why they chose to work with children in the first place.

In our trainings, laughter blends with deep insight, and theory meets real classroom experience. We don't just teach Montessori — we live it. In the way we speak to one another, in the way we prepare our spaces, and in the way we believe that change in education begins with the inner transformation of the adult.

Montessori Teacher Training and Professional Development

MONTE PLUS is an accredited provider of innovative and updating teacher education programs, officially recognized by the Ministry of Education, Research, Development and Youth of the Slovak Republic. Participants completing over 50 hours of training may earn a certificate in Innovative Education (Inovačné vzdelávanie). Our courses combine practical, hands-on learning with theoretical depth. Teachers have the opportunity to explore authentic Montessori materials, guided by experienced lecturers who explain not only how to use them, but why they matter — connecting educational tools to the child's development, concentration, and joy of discovery.

We offer:

- Certified in-service and innovative training for teachers
- Interactive workshops and seminars for schools and individuals
- Webinars and online programs for wider accessibility
- Programs covering all Montessori levels: 0–3, 3–6, 6–12, and adolescents

Building a Montessori Community

MONTE PLUS connects teachers, parents, and educational institutions who share the belief that true learning begins with respect for the child.
We create safe, inspiring spaces for collaboration — both locally and internationally.

As a partner in the Erasmus+ project *Citizen of the World*, Monte Plus actively contributes to international cooperation and the exchange of best practices among Montessori educators from different countries.

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Beyond our training programs, we organize community events, lectures, and public webinars that help bridge the gap between formal education and authentic Montessori principles. Our goal is simple: to make Montessori education accessible to as many children as possible in Slovakia.

Our Team

Our team of experienced Montessori lecturers — including Veronika Kánová, Anna Šuľáková, Lucia Hudecová and other guest experts — brings together decades of hands-on classroom experience and a shared passion for quality teacher education.
Their expertise ensures that every MONTE PLUS course is grounded in both practice and philosophy, offering participants meaningful and transformative learning experiences.

MONTE PLUS – Spreading the ideas of Maria Montessori and understanding among people. We bring positive change for children, parents, and educators — one course, one classroom, one heart at a time.

Website - https://www.monteplus.sk

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Project team:
Montessori Institute Prague, Czech Republic

Who We Are and What We Do?

Montessori Institute Prague (MIP) was founded in 2013 by Miroslava Vlčková, a passionate Montessori educator, entrepreneur, and community builder. The original idea was simple yet urgent: the Montessori school that Miroslava had founded needed access to high-quality teacher training that matched the standards of the Association Montessori Internationale (AMI). Rather than wait for someone else to provide it, she took the initiative to establish a training center in Prague - one that would not only serve her school's teachers, but also become a resource for the wider Montessori movement in Central and Eastern Europe.

From those beginnings, MIP has grown into a thriving AMI training organization with a truly global reach. Today, we provide Montessori teacher training for every age level Assistants to Infancy (0–3 years), Primary (3–6 years) and Elementary (6–12 years). We deliver our courses in both online and blended formats, making high-quality Montessori education accessible to students across continents. In addition to teacher training, we also offer certificate courses for classroom assistants, professional development for school leaders and administrators, and a wide range of theme-based seminars and workshops. Whether you are an experienced Montessorian, a school director, a new assistant, or a curious parent, there is a place for you to learn and grow with us.

Our Mission and Vision

At Montessori Institute Prague, our mission is to empower adults to bring Montessori education to children everywhere. We believe that by supporting teachers, leaders, and parents, we are shaping not only schools but also communities, families, and ultimately the future of society.

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Our vision extends beyond the classroom. We see Montessori education as a global movement for peace, dignity, and human potential. Every child deserves an environment where they can thrive - and every adult deserves the training and support to create such an environment.

Building a Global Montessori Community

Education does not happen in isolation. From the very beginning, MIP has been committed to creating spaces for connection and community. Each year, we host dozens of free online gatherings where Montessorians from all over the world can come together to share, learn, and ask questions. These sessions are informal, interactive, and deeply supportive. They remind us that while our classrooms may be local, our community is truly global.

We also organize free webinars with AMI trainers. These sessions bring top-quality expertise within reach of anyone with an internet connection. Hundreds of participants join us to hear trainers speak on practical and philosophical topics, ask questions, and deepen their understanding of Montessori practice.

Beyond teaching, we also recognize the need for mentorship and guidance. Many people dream of opening Montessori schools, starting parent programs, or even establishing training organizations in their countries. We have supported such pioneers through mentoring groups that focus on grant writing, project design, and community building. These groups have already helped bring Montessori to new communities, ensuring that the movement continues to spread in sustainable and grounded ways.

Professional Development for Leaders

Montessori schools need not only well-trained teachers, but also strong, values-based leadership. This is why MIP offers courses for Montessori school managers and administrators. These programs explore the essentials of financial stability, communication, and organizational culture - all grounded in Montessori principles. We believe that thriving schools are built on both pedagogical excellence and healthy, sustainable leadership.

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Through workshops, online series, and mentoring, we equip leaders with practical tools to face real-world challenges: balancing budgets, engaging families, and supporting staff. At the same time, we encourage them to lead with trust, kindness, and clarity, modeling for adults the same respect and guidance we wish for children.

We help enthusiasts bring Montessori to their communities!

Website: https://amiprague.cz

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2 CHAPTER

UNDERSTANDING THE ELEMENTARY CHILD

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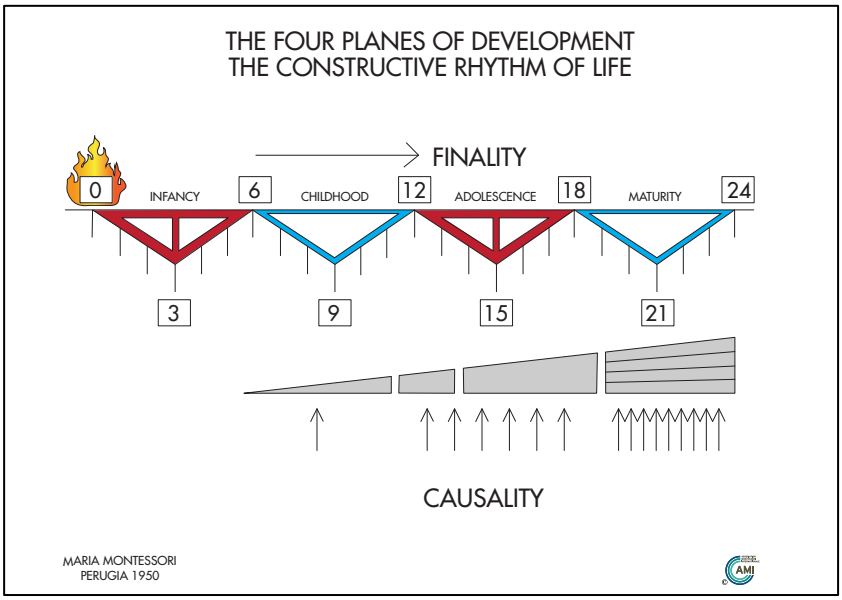
Planes of Development



Maria Montessori described human development as unfolding in the constructive rhythm of life or as we call it - “planes of development,” each characterized by unique physical, psychological, and spiritual needs. These planes—birth to 6, 6 to 12, 12 to 18, and 18 to 24—represent cycles of transformation, much like stages in the metamorphosis of a butterfly. At the transition between planes, the child undergoes a kind of “rebirth,” shedding the traits of the previous stage and emerging with new capacities and sensitivities. Montessori believed that because the characteristics of each plane differ so profoundly, the environment and educational approach must also transform to meet the child’s evolving nature. The prepared environment, therefore, is not static—it adapts, just as the child does, to provide the right nourishment for growth at each stage.

The second plane of development, from six to twelve years, is a time of intellectual and moral awakening. The child who once absorbed the world through the senses now hungers for reason, imagination, and connection. This “rebirth” brings a shift from physical independence to intellectual and social independence: the child seeks to understand how the world works and how people relate within it. Like a butterfly spreading its wings, the elementary child reaches outward, exploring vast ideas, moral questions, and the interconnectedness of life. The Montessori environment for this plane must therefore expand beyond the classroom walls, offering stories, research, and opportunities for collaboration that satisfy the child’s need for exploration, justice, and belonging.

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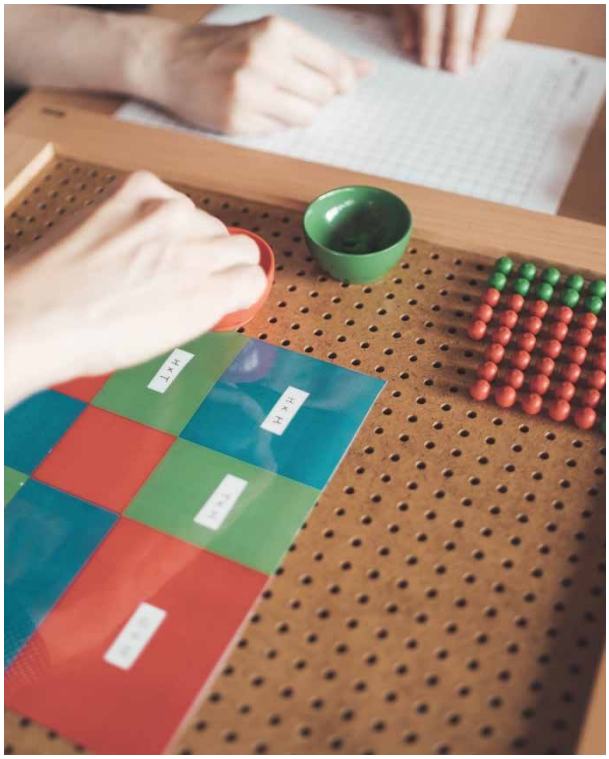
Characteristics of Elementary child

Reasoning Mind is a Tool

In the elementary stage, the child's reasoning mind becomes the primary means of learning. No longer content with mere sensory exploration, the child wants to grasp the logic behind things. The reasoning mind allows the child to analyze, compare, and synthesize information, turning learning into a conscious, intentional act. Montessori described this as the age of the *reasoning mind*, where intellectual exploration replaces the spontaneous absorption of early childhood. The prepared environment must therefore provide opportunities for discovery and research that challenge the child to think critically, make inferences, and draw conclusions independently.

Why and How?

The child of this age constantly asks "Why?" and "How?"—questions that reflect their deep need to understand the interconnections of the universe. This questioning is not mere curiosity; it is an intellectual drive that leads the child to explore moral, scientific, and social truths. Montessori education responds to this need by presenting the child with the "Great Lessons," stories that offer grand, cosmic answers while inspiring further inquiry. The teacher becomes a storyteller and guide, helping the child form a framework of understanding that supports self-driven exploration and a lifelong love of learning.



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The Power of Imagination

Imagination is the key that unlocks the elementary child's ability to explore beyond what can be seen or touched. Through imagination, the child can picture the formation of the universe, the evolution of life, and the invisible forces of nature. Montessori saw imagination not as fantasy but as a bridge between concrete experience and abstract understanding. The prepared environment offers tools—stories, experiments, timelines, and charts—that spark the imagination and allow the child to engage intellectually and emotionally with the vastness of creation.

Hero worship

During the elementary years, children begin to look up to figures who represent ideals of courage, intelligence, and moral strength. This phenomenon, known as *hero worship*, reflects their developing moral sense and admiration for greatness. Montessori educators can channel this instinct by introducing stories of real heroes—scientists, explorers, artists, saints —who contributed positively to humanity and also unknown heroes that are everyday around us -for example: unseen work of the plants. Through these stories, children are inspired to form their own sense of purpose and values, internalizing the idea that they too can make meaningful contributions to the world.

Big Work

Elementary children are drawn to "big work"—ambitious, complex projects that allow them to collaborate, research deeply, and apply knowledge across disciplines. Big work satisfies their need for intellectual challenge and social connection. It may take the form of group projects, research studies, dramatic reenactments, or community service. This kind

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of work develops persistence, independence, and responsibility while integrating academic learning with real-world experience. Montessori educators support big work by providing time, resources, and freedom, trusting the child's inner drive to complete meaningful tasks.

Moral development: Justice and Fairness

Moral development becomes a central theme in the second plane of development. The elementary child develops a keen sense of justice and fairness, often expressing strong opinions about what is right or wrong. This emerging moral awareness is part of their reasoning process—they want to understand the *why* behind rules and consequences. Montessori classrooms support moral growth through community life: class meetings, shared responsibilities, and opportunities for conflict resolution. By experiencing fairness and cooperation firsthand, children internalize ethical principles and develop empathy for others.

Herd Instinct

The elementary child's "herd instinct" refers to the strong desire to belong to a group and collaborate with peers. Social relationships become central to their development, as children learn through interaction, cooperation, and shared exploration. Group work provides a natural context for learning social responsibility, negotiation, and respect for others' perspectives. Montessori environments embrace this instinct by encouraging mixed-age collaboration and shared discovery, allowing children to develop both individuality and social harmony through authentic community experiences.

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Environment for Second Plane Child

In Montessori education, the prepared environment for the second plane child (6–12 years) is carefully designed to support their intellectual curiosity, moral development, and social growth. Unlike the early childhood environment, which emphasizes sensory exploration and practical life skills, the elementary environment is expansive, rich in materials, and structured to encourage reasoning, imagination, and discovery. It includes areas for language, mathematics, geometry, geography, history, biology, art, and music, each presented in a way that connects subjects and encourages the child to see the world as an interconnected whole - cosmic education approach. Materials and activities are often arranged in progressive sequences that allow the child to work independently or in groups, follow their own interests, and pursue in-depth projects, fostering both autonomy and responsibility.

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Beyond academics, the second plane prepared environment nurtures social and moral development. Children work collaboratively on group projects, engage in community responsibilities, and participate in discussions that promote empathy, justice, and fairness. Classrooms are designed to be orderly yet flexible, providing space for “big work,” dramatic reenactments, conduct research together, and solve problems as a team, learning cooperation, empathy, and fairness in real social contexts. Storytelling stimulates imagination and critical thinking.

Montessori emphasized a dual environment for this plane: while the classroom provides structure, materials, and guidance, outdoor and community experiences extend learning beyond the walls. It is called going out experience, which can be connected with field trips, nature explorations, and interactions with local communities allow children to connect their studies to real-life contexts, deepening understanding and fostering responsibility. In this way, the prepared environment supports not only intellectual growth but also social awareness, practical skills, and a sense of belonging within both the classroom and the larger world outside the doors of the classroom.

The teacher in this environment acts as a guide, carefully observing and introducing resources that meet the child’s developmental needs while respecting their emerging independence.

In this way, the prepared environment becomes a living ecosystem that mirrors the child’s expanding mind and spirit, offering challenges and opportunities that encourage holistic growth.

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3 CHAPTER

EU KEY COMPETENCIES IN THE 21ST CENTURY

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EU document about lifelong learning competencies

The concept of lifelong learning competencies emerged from the European Union's recognition that education and training are central to social cohesion, employability, and personal development in a rapidly changing world. In the early 2000s, the EU focused on creating a framework to define the knowledge, skills, and attitudes necessary for citizens to thrive in modern societies. This effort culminated in the 2006 Recommendation of the European Parliament and the Council on Key Competences for Lifelong Learning, which identified eight core competencies essential for all individuals, regardless of age or background. The document was developed through extensive consultation with member states, educational experts, and social partners, reflecting a shared vision for inclusive, high-quality education across Europe.

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The document is important because it provides a clear and comprehensive framework for education and training systems throughout the EU. By defining key competencies, it helps policymakers, educators, and institutions ensure that learning is relevant, holistic, and adaptable to lifelong needs. The framework emphasizes not only knowledge but also skills, attitudes, and values, supporting personal development, social inclusion, active citizenship, and employability. In addition, it promotes equity by encouraging all learners to acquire competencies that allow them to participate fully in society and the labor market. The document thus serves as a reference point for aligning national curricula, training programs, and educational initiatives across member states.

The EU framework on lifelong learning competencies is designed to be flexible and practical, guiding both policy and classroom practice. Member states use it to shape national education strategies, define curriculum standards, and design assessment tools that reflect the holistic development of learners. Educators employ the framework to plan learning experiences that nurture knowledge, skills, and attitudes in an integrated manner, while training institutions and workplaces can use it to develop professional competencies and lifelong learning opportunities. The document also serves as a benchmark for monitoring and evaluating learning outcomes across Europe, ensuring that individuals are equipped to meet social, economic, and personal challenges throughout their lives.

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Competence based learning

The development of key competences in elementary-aged children is a gradual and holistic process that combines **knowledge, skills, and attitudes**. These three components work together, allowing children to understand, apply, and interact with the world in meaningful ways.

Knowledge provides the foundation for competence. For elementary children, knowledge includes the concepts, facts, ideas, and theories that are already established in a subject area. At this age, children are naturally curious and eager to understand “why” and “how,” so knowledge is not just memorized—it is explored, questioned, and connected to real-life experiences. For example, learning about ecosystems in science or historical events in social studies is most effective when children can see relationships, patterns, and consequences, rather than only recalling isolated facts. Knowledge acts as the raw material that children use to think critically and creatively about the world around them.

Skills are the abilities children develop to use knowledge effectively. In the elementary years, skills include logical reasoning, problem-solving, research, communication, collaboration, and self-management. Skills allow children to take what they know and turn it into action—whether conducting a science experiment, completing a group project, or presenting their ideas to peers. Montessori classrooms support skill development by providing hands-on materials, open-ended projects, and opportunities for exploration, where children can practice decision-making, planning, and reflection in authentic contexts. By actively engaging with their learning, children strengthen their capacity to apply knowledge in practical and creative ways.

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Attitudes refer to the dispositions and mindsets that guide how children act and respond to ideas, people, and situations. Attitudes such as curiosity, perseverance, empathy, responsibility, and openness to new ideas are essential for building competences. In elementary children, attitudes are shaped through both individual experiences and social interactions. A child who approaches a project with curiosity and persistence, or who collaborates respectfully with peers during group work, is developing the mindset necessary to use knowledge and skills effectively in diverse situations. Montessori education emphasizes cultivating positive attitudes through real-life practice, moral discussions, and opportunities for reflection, allowing children to internalize values that support lifelong learning.

Key competences are not developed in isolation—they grow through **formal, non-formal, and informal learning experiences**, all of which are abundant in the elementary years. The classroom environment, community projects, outdoor explorations, and interactions with peers all provide rich opportunities for children to integrate knowledge, practice skills, and develop constructive attitudes. For example, a collaborative research project on local history engages children in factual learning (knowledge), teamwork and presentation skills (skills), and responsibility and respect for others' ideas (attitudes). In this way, competences are built dynamically and interdependently, preparing children not only for academic success but for active, responsible participation in society.

In Montessori classrooms, the carefully prepared environment, combined with the child's natural curiosity and desire for exploration, creates ideal conditions for this holistic development. By encouraging children to investigate, collaborate, and reflect, Montessori education ensures that knowledge, skills, and attitudes grow together, forming the foundation of the eight EU key competences for lifelong learning.

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Eight Key Competencies for Lifelong Learning

1. Literacy Competence

The ability to express and interpret concepts, thoughts, feelings, facts, and opinions in both oral and written forms in a variety of contexts. This competence encompasses reading, writing, speaking, and listening skills, enabling individuals to understand and produce texts effectively.

2. Multilingual Competence

The capacity to communicate effectively in more than one language, encompassing comprehension, speaking, reading, and writing skills. This competence supports intercultural understanding and facilitates communication in diverse linguistic contexts.

3. Mathematical Competence and Competence in Science, Technology, and Engineering (STEM)

The ability to apply mathematical concepts and reasoning to solve problems, as well as to understand and engage with scientific, technological, and engineering concepts. This competence is crucial for innovation and addressing complex challenges in various fields.

4. Digital Competence

The confident, critical, and responsible use of digital technologies for learning, work, and participation in society. It includes the ability to use digital tools to access, manage, and create information, as well as to communicate and collaborate online.

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5. Personal, Social, and Learning to Learn Competence

The ability to reflect on one's own learning processes, set goals, and manage one's learning effectively. It also involves interpersonal skills, empathy, and the ability to work collaboratively with others.

6. Citizenship Competence

The knowledge and skills required to engage actively and responsibly in civic life, understanding democratic principles, human rights, and the importance of social cohesion. This competence fosters active participation in community and societal development.

7. Entrepreneurship Competence

The ability to turn ideas into action, demonstrating creativity, innovation, and risk-taking in the pursuit of opportunities. It includes skills such as planning, managing resources, and evaluating outcomes, applicable in various contexts including business and social initiatives.

8. Cultural Awareness and Expression Competence

The understanding and appreciation of the importance of the creative expression of ideas, experiences, and emotions in a variety of media, including music, performing arts, literature, and the visual arts. This competence promotes cultural diversity and personal expression.

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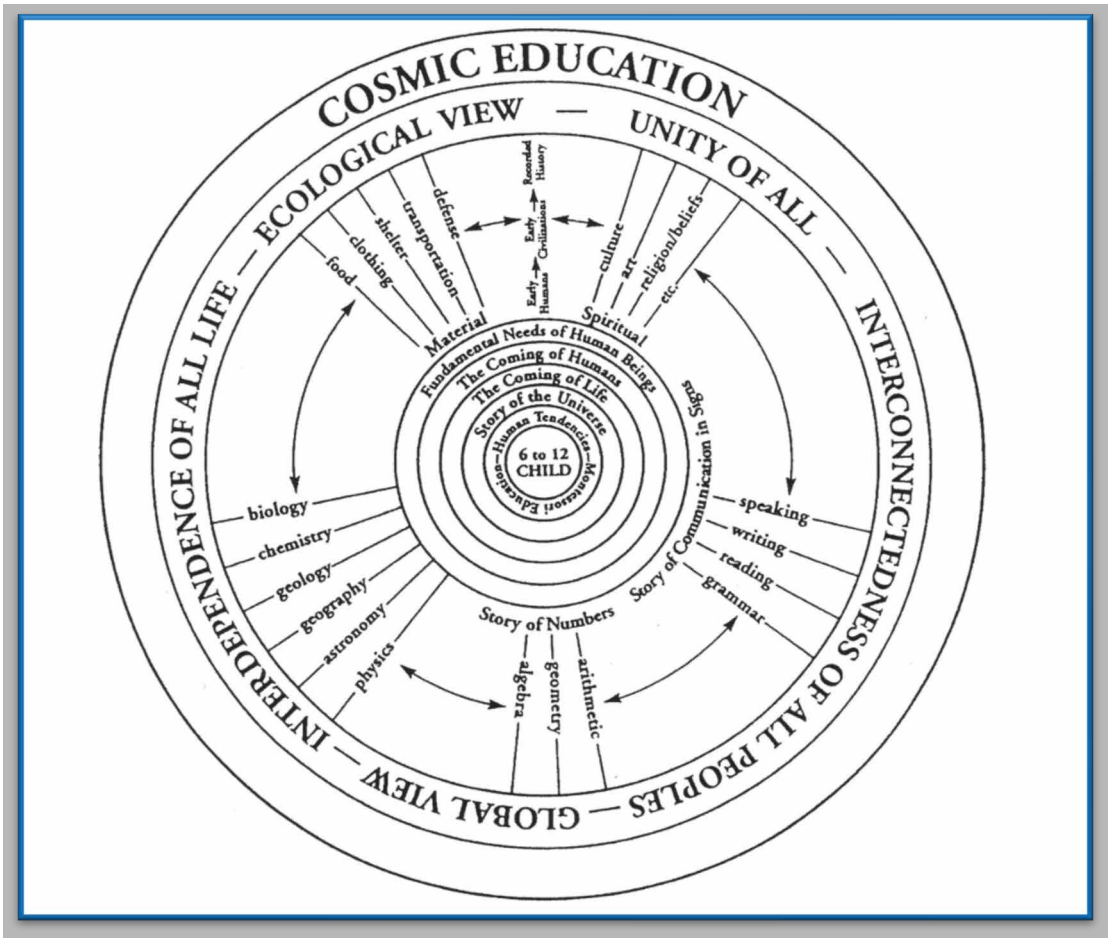
Link with Montessori Cosmic Education

Montessori education naturally aligns with the EU framework, as both emphasize the holistic development of the individual and the cultivation of lifelong learning skills. In Montessori classrooms, learning is not limited to acquiring knowledge; it is a shared journey where children, teachers, and peers form a supportive community. Through self-directed work, collaborative projects, and practical life experiences, children develop communication skills, critical thinking, creativity, and social competencies in an environment that values curiosity, respect, and responsibility. The prepared Montessori environment acts as a dynamic space where each child can explore at their own pace, guided by observation and mentorship, while also contributing to the life of the classroom community.



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This community approach mirrors the intent of the EU key competencies framework: to equip learners not only with knowledge but with the ability to apply it meaningfully in social, cultural, and professional contexts. Montessori classrooms encourage children to take initiative, engage with others, and reflect on their learning, fostering civic awareness, cultural understanding, and moral responsibility. Digital literacy, environmental consciousness, and problem-solving skills are integrated naturally through collaborative exploration, projects, and real-world connections. By nurturing autonomy, imagination, and a sense of purpose within a caring community, Montessori education creates the ideal conditions for developing the eight EU key competencies from early childhood through adolescence.

In the following chapter of these guidelines, we will take a deeper dive into each of the eight competencies, exploring practical strategies and Montessori approaches that help Elementary children build these skills, attitudes, and values in meaningful ways. This next section will bridge theory and practice, showing how the EU framework and Montessori philosophy together provide a roadmap for lifelong learning.

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Alignment Between EU Key Competencies and Montessori Cosmic Education

EU COMPETENCIES	COSMIC EDUCATION
learning through involvement in active, authentic, collaborative tasks	Hands-on experience with Montessori materials
cross-curricular approaches where learners experience contexts that combine a few subject areas	Cosmic education (contextual learning experience)
a combination of individual (autonomous and self-managed) and collaborative learning opportunities	Working in groups, peer to peer and individually
a combination of learner-centred and teacher-led approaches	Individual work of the child, presentations and follow up
learning experiences inside and outside school	Going out experience, dual environment
relevant use of digital resources and virtual learning platforms	Use of various materials, different learning techniques in the classroom
whole school approach to wellbeing supporting learners' social and emotional development	prepared adult, mixed-age classrooms, daily opportunities for meaningful social interaction

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4 CHAPTER

LITERACY COMPETENCE

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Literacy competence

Literacy is the ability to identify, understand, express, create and interpret concepts, feelings, facts and opinions in both oral and written forms, using visual, sound/audio and digital materials across disciplines and contexts. It implies the ability to communicate and connect effectively with others in an appropriate and creative way. Development of literacy forms the basis for further learning and furthers linguistic interaction.

Knowledge

The competence involves the knowledge of reading and writing and a sound understanding of written information and thus requires an individual to have knowledge of vocabulary, functional grammar and the functions of language. It includes awareness of the main types of verbal interaction, a range of literary and non-literary text and the main features of different styles and registers of language.

Skills

Individuals should have the skills to communicate both orally and in writing in a variety of situations and to monitor and adapt their own communication to the requirements of the situation. The competence also includes the abilities to distinguish and use different types of sources, to search for, collect and process information, to use aids and to formulate and express one's oral and written arguments in a convincing way appropriate to the context. It encompasses critical thinking and ability to assess and work with information.

Attitudes

A positive attitude towards literacy involves a disposition to critical and constructive dialogue, an appreciation of aesthetic qualities and an interest in interaction with others. This implies an awareness of the impact of language on others and a need to understand and use language in a positive and socially responsible manner.

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Foundations of literacy competence in Children House

In the Montessori Children's House, the foundations of literacy are quietly and beautifully laid long before a child begins to read or write. Till the age six, children are in what Maria Montessori called the *sensitive period* for language—a time when they naturally absorb words, expressions, and even the rhythm of language from their surroundings. It is during this stage that the seeds of literacy begin to grow.

The journey starts with spoken language. Conversation is at the heart of everything we do. We speak with children, not to them. We listen to their questions, their stories, and their discoveries. During these exchanges, we are not only building relationships—we are also nurturing vocabulary, sentence structure, and the joy of communication.

You might see a teacher sitting on the floor or by the table with a child, naming objects in a three-period lesson—a key Montessori approach to new vocabulary learning. "This is a bathtub," she says, introducing the word clearly. The children listen, repeat, and eventually recall it on their own. Through countless such experiences, children build a rich and precise vocabulary that becomes the foundation for later reading and writing.

Storytelling is another vital part of this process. We tell true stories about the world—about animals, nature, people, and faraway places. We also read books that ignite imagination and empathy. Each story becomes an invitation to think, question, and express. Language here is not a subject to be studied; it is a living, breathing part of daily life.

As the child grows, sounds begin to take shape in their awareness. Montessori materials such as the *Sandpaper Letters* help connect sound and symbol—the tactile tracing of each letter allows the child to internalize its form and sound simultaneously. Soon after, something wonderful happens: the child begins to write before they can read.

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This writing does not begin with worksheets or pre-prepared tasks. Instead, it springs from the child's own desire to express thoughts and feelings. When a four- or five-year-old picks up the *Moveable Alphabet* and arranges letters to write "I love my dog," we witness literacy in its most natural form—language as self-expression.

Our role as Montessori teachers is not to "teach literacy" in the traditional sense. We do not transmit knowledge step by step; we prepare an environment rich in language, conversation, and inspiration. We provide opportunities for children to listen, speak, write, and eventually read in meaningful contexts. *Grace and Courtesy lessons* guide them in how to use language kindly and respectfully in social life—how to greet, how to apologize, how to express gratitude.

Over time, we watch a beautiful transformation. A child who once spoke only a few words begins to share stories, ask questions, write messages, and read signs around the classroom. They are not just learning to read and write—they are discovering the power of language as a tool for thought, creativity, and connection. In the Montessori Children's House, literacy is not a lesson—it is a living experience that grows naturally within a carefully prepared environment, guided by the child's own curiosity and joy of expression.

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4th Great Story as an opening door in 2nd plane to the world of literacy

"Alphabet has influence human progress more than any other invention because it has modified man himself, furnishing him with new powers, above those of nature. It has made man the possessor of two languages: a natural and supra-natural one. With the latter, man can transmit his thoughts to far away people. He can fix them for descendants. He can practically build up a treasure of the intellectual products of the whole of humanity through time and space." Maria Montessori. Formation of the Man

When children enter the second plane of development—roughly from six to twelve years of age—they begin to look outward. Their minds open to the vastness of the world, and they start asking the most human of questions: *Where do I come from? Why are things the way they are?* They are driven by imagination and a thirst for knowledge that stretches beyond the here and now. In the Montessori Elementary classroom, we meet this great hunger for understanding with the Great Stories. These five key narratives form the backbone of the Elementary curriculum. Each one acts as an invitation—a doorway—to explore the universe, life, human history, and the power of language and numbers.

The Fourth Great Story, titled "The Story of Communication in Signs," marks a special moment in a child's journey. It opens the door to the world of literacy—not through drills or exercises, but through wonder. This story is told as an adventure. It invites children to imagine the earliest humans who, long before paper or pens, sought ways to share their ideas and experiences. We tell of the first marks carved into stone, of messages painted on cave walls, of symbols scratched into clay. We imagine people realizing that they could represent sounds with signs—and that, through these signs, their thoughts could travel across time and space. Through this tale, children discover

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that written language is a human invention born from the deepest desire to connect. Every sign, letter, and word is part of an ongoing story—a collective effort of countless people who refused to let ideas be lost to time. The story connects history, invention, migration, and communication, helping children see that the alphabet itself is one of humanity's greatest tools of cooperation and creativity. In this story, there are heroes: not warriors or kings, but thinkers, dreamers, and problem-solvers—people who shaped sounds into symbols and, in doing so, shaped civilization itself. This idea resonates deeply with the child of the second plane, who is beginning to see themselves as part of a broader human story.

The children recognize that, just like those first inventors, they too are explorers in language. They will face challenges—spelling, punctuation, structure—but, like the heroes in the story, they will find their own solutions. The story reminds them that literacy is not just about mastering rules; it is about using language to share ideas, feelings, and discoveries. What's truly magical is that, by knowing the sounds of the alphabet, a child gains an extraordinary power: to read the thoughts of others and to express their own ideas in words. With only a handful of symbols, they can unlock the wisdom of books, letters, songs, and stories from all over the world. Isn't that a miracle of human invention?

Maria Montessori described language as a creation that springs from the three great human gifts: a heart to feel, a mind to think, and hands to work. After hearing this story, the classroom often comes alive with activity. Children might explore ancient scripts, invent their own alphabets, write messages in code, or compose stories inspired by what they've learned. The teacher doesn't prescribe these activities; they arise naturally from the children's curiosity. Beyond its historical and linguistic lessons, The Story of Communication in Signs carries a deeper message. It helps children see language as a bridge between people—a way to understand, to empathize, and to connect. As they grow in their own literacy journey, they learn that communication is not just about words; it is about reaching out to others with kindness and clarity. In this way, the Fourth Great Story does more than introduce reading and writing—it awakens in children a profound appreciation for what it means to be human: a being who feels, thinks, and uses language to share their inner world with others.

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Story from the classroom

Inspiration after 4th Great Story

After telling the Fourth Great Story, Communication in Signs, we noticed that children were fascinated by the idea that people across time and cultures have used different symbols to communicate. Their eyes lit up when they saw how ancient Egyptians carved hieroglyphs, and how other civilizations created their own systems of writing. Soon, they were eager to try it themselves—writing their names and small stories in different scripts, experimenting with symbols from both the past and the present.

As teachers, we quickly realized how important it was to prepare an environment that could nurture this spark of curiosity. We added new materials—clay and sticks for carving, brushes for calligraphy, and charts showing different alphabets and guides to help understand hieroglyphs. The classroom became alive with exploration and creativity. One day, inspired by the story and their writing experiments, the children decided to make their own paper. They gathered scraps from the recycling bin, shredded and soaked them, and created beautiful sheets of handmade paper. Later, they used these to make small booklets for their writing projects. Through this experience, we saw how the story had opened not only their imagination but also their sense of purpose. They were not simply learning about writing—they were becoming part of humanity's long and ongoing story of communication.

Montessori akademija, Lithuania

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Writing skills: from sensorial explorer to expressive writer

Writing is one of the most powerful ways we communicate. It allows us to shape our thoughts, give form to our ideas, and extend our conversations beyond the present moment. Through writing, our inner world becomes visible—and it can reach far beyond ourselves.

In the Montessori elementary environment, we help children develop the confidence and self-trust to make their language visible. Writing is more than forming letters or following rules—it is a way for children to share what they think, feel, and discover. We nurture the belief that their ideas matter and can live on through the written word. As described in the previous chapter, the foundation for writing is laid in the Children's House. When children arrive in the elementary classroom, they usually already know the connection between sounds and symbols and have experienced the joy of expressing themselves with the moveable alphabet. Now, the focus shifts to refining these abilities and expanding their expression.

We introduce the art of handwriting—learning to write on lines, using alphabet charts, and exploring calligraphy. These activities refine fine motor control and develop a sense of care for the written word. Through varied experiences, children build the mechanical confidence to express their thoughts freely and beautifully on paper. But we do not stop at the skill itself. Once children understand how to write, we open the door to why we write. We explore the many

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ways writing can express the human spirit—poems that capture emotion, fairy tales that expand imagination, reports that organize knowledge, or posters that share information about animals or historical figures. Writing becomes a bridge between self-expression and communication with others.

In our classrooms, writing is never confined to a notebook or done only for a teacher's approval. It is meant to be shared—with classmates, families, and the wider community. Children read their poems aloud, publish small booklets, and present their research to peers. Through these experiences, they discover that writing is not an isolated task but a living exchange of ideas. Our goal as Montessori educators is to support children as they move from sensorial explorers to expressive writers—individuals who write not because they must, but because they have something meaningful to say.

Story from the classroom

The School Newspaper Project

At Jolly HOME SCHOOL, *something wonderful happens every quarter—the creation of our vibrant school newspaper. But this is no ordinary publication; it is a living celebration of literacy, creativity, and collaboration among children of all ages. The process begins with the youngest students, who bring the newspaper to life with their stories, drawings, and imaginative ideas. Their enthusiasm fills the classroom with excitement as they share what they want to write about—animals, playground adventures, favorite books, or classroom discoveries. Their contributions form the heart and soul of the newspaper, reminding everyone of the pure joy of expression.*

As the younger ones dream and create, the older students step in as guides and mentors. They help edit the texts, organize the layout, and prepare the final design for printing. This partnership between age groups fosters not only literacy skills but also leadership, cooperation, and patience. Everyone has a role—writers, illustrators, interviewers, editors, and designers—and the workflow unfolds naturally, reflecting the Montessori spirit of purposeful collaboration.

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When the newspaper is finally ready, the entire school community gathers to celebrate. Children beam with pride as they see their names in print and eagerly share the finished copies with parents and teachers. Families are often amazed at how thoughtfully their children express themselves, while teachers witness the growth of confidence, voice, and connection among their students.

Each edition of the Jolly HOME SCHOOL newspaper explores many forms of writing—news articles, opinion pieces, poems, stories, and interviews. Through this ongoing project, children discover that writing is not just a skill learned in isolation, but a living means of communication. They learn that their ideas can inform, inspire, and unite others.

More than a publication, the school newspaper has become a symbol of our community's shared purpose—a reminder that when children work together, guided by curiosity and respect, their words can shape something beautiful and lasting.

Jolly HOME SCHOOL, Slovakia

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Comprehensive reading in Montessori classroom

In the Montessori elementary classroom, reading is much more than decoding letters on a page—it is an act of discovery and understanding. Maria Montessori used the term "*total reading*" to describe this deep level of comprehension, when a child not only reads the words but truly understands, feels, and interprets their meaning. Our goal is to help children reach this stage, where reading becomes a window into human thought and imagination, not just a mechanical exercise.

The journey toward total reading begins with strong foundations built in the early years. Through sensorial exploration and oral language activities, children develop phonological awareness—the ability to hear and recognize sounds in words. They play language games such as I Spy or listen for the first, middle, and last sounds of words. They stretch words aloud, blend sounds, and match them to letters using tactile materials like sandpaper letters and moveable alphabets. These experiences prepare the mind and hand for reading, helping children "crack the code" between symbols and sounds.

When children arrive in the elementary classroom, many are already able to read basic words and phrases. Here, our focus expands from how to read to what reading means. We nurture comprehension, interpretation, and reflection. Reading becomes a conversation between the child and the text. To make this connection alive, we use hands-on materials and activities that transform reading into an experience. *Command cards*, for instance, invite children to act out what they read—"Stand near the window," or "Draw a triangle and color it blue." Through such exercises, reading becomes active and joyful, and comprehension is deepened through movement

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and experience. Even grammar lessons are brought to life: instead of memorizing parts of speech, teacher presents it with experience, that one word can change meaning, like “Sing silently” or “Sing loud”. Grammar is not abstract—it is lived in the classroom and experience also through text.

The choice of text also matters. Children must find meaning in what they read. Dry passages filled with information are replaced by stories, descriptions, and texts that invite connection and reflection. We guide children to visualize, to ask questions, to relate what they read to their own experiences or to the wider themes they are exploring in class. When a child reads about the migration of birds, for example, we might step outside to observe the sky or draw parallels to human journeys. Through such connections, comprehension becomes grounded in experience.

Reading in Montessori classrooms does not happen only in the language area—it flows through all subjects. A story about an ancient civilization may lead to a discussion about geography and culture. Reading about plant life may inspire an experiment in biology. Each subject area offers materials and reading cards at different levels of complexity, allowing every child to find texts that match their ability and curiosity. In this way, the classroom becomes a community of readers, each progressing at their own pace but united by shared enthusiasm for discovery. Group discussions and story work encourage children to interpret meaning, make predictions, and explore emotion within text. They begin to recognize subtlety, humor, and metaphor. Reading becomes not only a skill but also an intellectual and creative experience.

At the heart of it all is a love for books. Our classrooms include cozy reading corners and small libraries where children can read freely—alone, with a friend, or in small groups. They are invited to spend time with books at any moment of the day, not only during lessons. Through this freedom, reading becomes a lifelong companion, a source of comfort, curiosity, and joy.

In the Montessori classroom, comprehensive—or total—reading means more than understanding words. It means understanding life through words. It is about awakening the child’s heart and mind to the beauty of language and the endless world it opens before them.

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Story from the classroom

A Culture of Reading at Home and in School

At Montessori Akademija, we believe that a love of reading begins long before a child reads independently—and that this love is nurtured both at school and at home. For this reason, we invite families to become active partners in creating a culture of reading that bridges home and classroom life. We encourage families to build reading traditions at home, turning reading into a warm, shared experience rather than a task.

We share a small Family Reading Guide with parents—a gentle invitation to make reading part of everyday family life. We suggest a few simple but powerful habits:

- ***When to read:** Families are encouraged to set aside a specific time each day for reading, such as in the evening before bedtime. Reading, like any meaningful practice, needs rhythm and intention. Without planning, it is too easy for the day to pass without it.*
- ***Where to read:** A cozy, inviting space helps turn reading into something to look forward to. A soft blanket, a favorite corner, or a comfortable sofa can make this time special. We remind families to keep books visible and within reach—beautifully displayed rather than hidden away.*
- ***With whom to read:** Reading is a family affair. Everyone reads—parents, older siblings, and even the youngest children who explore picture books. When children see adults reading, they absorb the message that reading is valuable and joyful. These shared moments create lasting memories and associations of warmth and connection.*

*To strengthen the bridge between home and school, we bring the children's home reading experiences into the classroom. Every month, we have a **Book Recommendation Corner**, where children share books, they have enjoyed at home. They present their favorite stories to classmates, encouraging others to discover new titles and authors.*

*For children who find joy in reading the same series or topic, we form small **Readers' Clubs.** In these groups, children read the same book at home and come together later to discuss it—sometimes guided by the teacher, sometimes simply as peers sharing ideas. These*

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conversations often grow into deeper projects, such as researching the historical period or scientific concepts mentioned in the story.

To celebrate and inspire others, we also organize a ***Reading Photography Exhibition****. Families send photos of their reading moments at home—snuggled on the couch, reading under a blanket, or exploring books in the garden. These photos are displayed in the classroom, serving as a joyful reminder that reading is alive in every home and every heart.*

Through these shared efforts, reading becomes more than an academic goal—it becomes a way of life. The classroom and home connect through a common rhythm of stories, curiosity, and love for books. Together, we cultivate not just readers, but a community that finds meaning, comfort, and inspiration in the written word.

Montessori akademija, Lithuania

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Oral language foundation and communication between each other

"Language is something living — it is something that has life within itself. The child constructs it little by little, and the work goes on like a happy game. It is a game of transformation, of invention, a game which the human intelligence plays with itself."

Maria Montessori. The Absorbent Mind

Maria Montessori often described language as a *living thing*—something born and grown within the child through joyful exploration and human connection. She also called language an "instrument of collective thought," meaning that it is not simply a natural phenomenon, but a human creation—something invented so that people could think, share, and build together. Through language, humanity has created culture, science, art, and community. Language is the voice of the human mind and the thread that connects us all.

As children enter the Elementary level, much attention is given to reading and writing, yet it is crucial not to overlook the importance of spoken language. Oral language is the foundation upon which all literacy is built. It is through speaking and listening that children first learn to form thoughts, communicate ideas, and collaborate with others. Every reading, writing, and grammar experience in the Montessori classroom is rooted in this living, spoken exchange. In fact, even before children work with grammar boxes or sentence analysis materials, they must have a strong foundation in oral expression. Every Montessori presentation—whether in mathematics, geometry, or history—includes conversation. The teacher's words guide the child to reason, reflect, and imagine. Language is never mechanical; it is a bridge between thinking and doing.

To nurture oral language in the Elementary classroom, we appeal to the child's imagination—the primary learning tool of the second plane of development. Through storytelling, we invite children to travel through time and space using only the power of words. When we tell stories of great inventions, early civilizations, or discoveries in

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nature, language paints pictures in their minds. It awakens curiosity and emotion, encouraging children to ask questions, to share their own ideas, and to build knowledge collectively.

Equally important is how language is used among the children themselves. The classroom is a small society, and within it, children constantly practice communication: negotiating, sharing opinions, resolving disagreements, and expressing gratitude. These moments—whether in group work, classroom discussions, or casual conversations—are essential exercises in language development. We also prepare children for real-world interactions beyond the classroom. During *Going Out* experiences, they must speak with bus drivers, museum guides, shopkeepers, or librarians. Such moments give real purpose to language. They help children understand that words are not just for school—they are tools for life. Grace and Courtesy lessons play an important role in this process. Through simple but meaningful demonstrations—how to greet a visitor, how to make a polite request, how to listen respectfully—children learn to use language thoughtfully and with kindness. These skills become part of their daily interactions and build the foundation for empathy and respect within the classroom community.

In the Montessori environment, oral language is everywhere: in the stories we tell, the questions we ask, the debates we hold, and the quiet conversations between friends. Whether a child is presenting a research project, acting in a classroom play, or discussing a moral dilemma, they are not just practicing speaking—they are discovering the power of language to connect, to express, and to understand. When we help children cultivate the art of communication, we are doing more than teaching them to speak well; we are guiding them to think deeply, to listen with care, and to contribute their voice to the shared story of humanity.

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Story from the classroom

Gratitude Circle – A Montessori Moment of Connection

Most schools have a circle time — a special part of the day when children and teachers gather together to share. In the Montessori classroom, this moment takes on a unique form known as the Gratitude Circle, and it truly holds something magical. At Jolly HOME SCHOOL, we have been practicing the Gratitude Circle for some time. Just as children take turns signing up for various classroom duties, we also have a Master of Ceremony who leads the circle. This is an important role, and we are often moved to see even the shyest children step forward with courage and confidence to take it on.

The Master of Ceremony invites everyone to gather — sometimes with a gentle voice, sometimes with the sound of a musical instrument — and opens the first part of the meeting: sharing how we are and how we feel. As each child speaks, we listen attentively, learning to understand one another's emotions and experiences — why someone feels happy, sad, tired, or excited. This moment nurtures empathy and strengthens our sense of community. The second part of the Gratitude Circle is about acknowledgment — expressing thanks to someone or something. It is always heartwarming to hear children thank a friend for helping them, their parents for spending time together, or even the sun for shining that day. Finally, the teachers or adults in the environment share practical information about what will happen next — plans for the classroom, upcoming events, or simply words of encouragement and reflection.

The Gratitude Circle is practiced across all age groups, from 6 to 15 years. As students grow, so does the depth of their reflections, the richness of their vocabulary, and their ability to express gratitude thoughtfully. It becomes a cherished part of the day — sometimes in the morning, often at the close of the day, and always on Mondays, when we begin our week together with intention and connection.

The Gratitude Circle reminds us that learning is not only about knowledge, but also about being present, listening deeply, and appreciating the people and world around us.

Jolly HOME SCHOOL, Slovakia

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Finding order and structure in language

"The child, when interested in words at a certain age, can utilize grammar to good purpose, dwelling analytically upon the various parts of speech according as the processes of his inner spiritual grow determine. In this way he comes to own his language perfectly, and to acquire some appreciation of its qualities and power"
Maria Montessori
Advanced Montessori method II

In the Montessori Elementary classroom, language study becomes a journey of discovery—a way for children to uncover the hidden order behind the words they speak, read, and write. At this age, children's minds are naturally drawn to classification and structure. They seek patterns, rules, and connections that help them make sense of the world. Montessori described this as a *human tendency to seek order*, and it becomes the driving force behind their exploration of language.

When children begin to explore grammar in the Montessori classroom, it is not presented as a set of abstract rules to memorize, but as a living system to *see*, *touch*, and *understand*. Grammar symbols—small, color-coded geometric shapes—bring the invisible architecture of language to life. A black triangle stands for the solid, dependable noun; a bright red circle represents the verb, full of energy and action. Through play and discovery, the child begins to see language as an ordered universe, full of relationships and meaning. As children work with these materials, they begin to recognize how words function in sentences. They notice how each word contributes something essential—how a noun names, a verb moves, an adjective describes, and a preposition connects. This visual and tactile experience builds the foundation for *functional grammar*—understanding the *purpose* of each word and how together they create meaning.

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Later, through *sentence analysis*, children dissect language like young linguists. They learn to identify subjects, predicates, and modifiers, seeing how phrases and clauses fit together like the parts of a machine. But rather than feeling mechanical, this process sparks curiosity: *Why did the author choose this word? How does this sentence work? What happens if we change the order?* Such analysis refines both reading comprehension and expressive writing.

Through this growing awareness, children discover the *functions of language*—how we use words to inform, persuade, entertain, question, or express emotion. They begin to see that language is not static; it changes depending on purpose and audience. One day, a child might write a factual report about volcanoes, using precise, objective language; another day, they might write a story, letting their imagination and emotions guide their word choice. Gradually, they learn to shift between *different styles and registers*—formal and informal, poetic and scientific—understanding that the way we use language shapes how others receive our message.

In the Montessori classroom, children also encounter a wide *range of literary and non-literary texts*. From ancient myths to scientific articles, from poems to biographies, each type of text reveals new possibilities for expression. Reading and discussing these diverse forms expands their awareness of tone, structure, and purpose. It teaches them to listen for voice, rhythm, and meaning—the essential skills for literacy competence.

Language, then, becomes not only a subject of study but a tool for thinking, creating, and connecting. The order children find within grammar gives them the confidence to build ideas clearly and beautifully. As they learn to organize words, they are also learning to organize their thoughts. The visual clarity of Montessori materials and the logical beauty of grammar empower children to express themselves with precision and artistry. Ultimately, *finding order and structure in language* gives Montessori students more than linguistic skill—it gives them a way to understand the world and their place in it. They begin to see that language, like the universe, is full of patterns waiting to be discovered. And once they recognize its structure, they can use it to communicate ideas that are both logical and deeply human.

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Story from the classroom

Same Patterns in Different Languages

At Montessori Akademija, our bilingual classrooms offer a unique opportunity for children to explore the structure of language across more than one tongue. In these classrooms, the same lessons on language order and grammar are taught in both languages, allowing children to see that the parts of speech—nouns, verbs, adjectives, and more—serve the same functions no matter which language they are using. This understanding helps children create a mental framework for language, making it easier to learn and switch between multiple languages.

Unlike traditional matching activities, we do not use the color-coded symbols simply as a puzzle to complete. Instead, we invite children to imagine and internalize these symbols, turning them into vivid mental pictures. For example, the verb, often represented as a red circle, is described as the sun that gives life to everything in the sentence. This imagery helps children understand the verb as the word of action, the part that sets events in motion.

By connecting imagination with grammar, children are better able to analyze sentences, see the function of each word, and recognize the same patterns across languages. This approach allows them to build a strong foundation in both their first and second languages, fostering confidence and fluency.

Through this work, children learn that all languages follow similar patterns and structures, giving them a sense of order and predictability in their minds. More than just memorizing rules, they are constructing a deeper understanding of how language works—a tool that empowers them to communicate, create, and think across cultures.

Montessori Akademija, Lithuania

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Contextual learning and research skills in their Big Work

In the Montessori Elementary classroom, language is not confined to the language shelves. It lives in every corner of the environment—woven through stories of the universe, explorations of geography, biology, and history, and in the conversations that arise during group projects. This interconnected approach, known as *Cosmic Education*, helps children see that language is everywhere: in the scientific names of plants, in the poetry of geography, in the symbols of mathematics, and in the stories of human civilization.

When children engage in their *Big Work*—extended, interdisciplinary projects born from curiosity—they naturally encounter new words, ideas, and ways of expressing themselves. A child researching volcanoes learns not only about tectonic plates and magma but also expands their vocabulary with terms like “eruption,” “pressure,” and “lava flow.” Another group studying ancient Egypt learns to read maps, analyze hieroglyphs, and craft written presentations to share their findings. In this way, vocabulary is not memorized in isolation—it grows organically through meaningful, contextual learning.

The role of the Montessori teacher, or guide, is to nurture this process. Rather than providing direct answers, the teacher models how to search for and collect information. They might introduce reference books, digital tools, or field resources, demonstrating how to evaluate sources, organize notes, and synthesize information into clear presentations. Over time, children internalize these *research skills*—they learn to ask precise questions, follow curiosity with discipline, and communicate findings with accuracy and creativity.

As research deepens, the guide supports children in learning how to *formulate and express their ideas*—both orally and in writing. They practice giving short presentations, writing reports, or creating visual displays that communicate their discoveries. Discussions and feedback circles help them refine their ability to speak

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with confidence and listen with respect. They learn that convincing arguments are built not on opinion alone, but on evidence, reasoning, and awareness of context.

This process of research and presentation naturally cultivates an *attitude of collaboration*. Montessori classrooms are communities of shared inquiry, where children exchange knowledge, discuss differing viewpoints, and support one another's discoveries. Language becomes a bridge—a means of connection, not competition. Through group projects, children learn how to express ideas clearly, ask thoughtful questions, and respond with curiosity rather than judgment.

As their explorations expand, so does their *knowledge base and vocabulary*. Each new topic enriches their linguistic landscape: scientific terms, historical expressions, cultural idioms, and artistic language all find a place in their growing repertoire. Because these words are linked to real experiences—experiments, field trips, or creative work—they are remembered deeply and used meaningfully.

Ultimately, *contextual learning* in the Montessori classroom teaches children that language is not just a subject but a living tool for discovery. Through Cosmic Education, they come to see how words connect everything—how science, art, history, and human experience are all part of a single, interconnected story. In this way, research becomes not just an academic exercise but a journey of wonder, empowering children to explore, understand, and express the world around them with both intellect and imagination.

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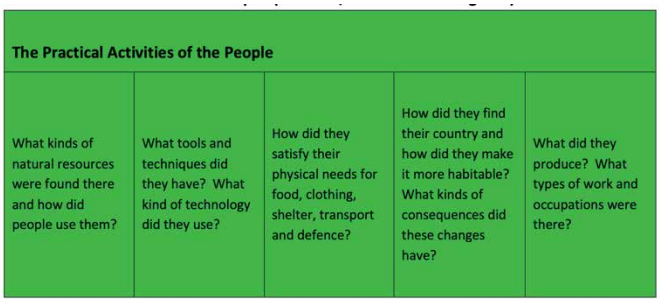
Story from the classroom

Questions charts about Civilizations

At Montessori Elementary, learning history and cultures is not just about memorizing facts—it's about exploration, curiosity, and working with text in a playful, meaningful way. One classroom activity that brings this to life is the ***Questions Chart about Civilizations****, designed for children aged 6 to 12.*



The Practical Activities of the People				
What kinds of natural resources were found there and how did people use them?	What tools and techniques did they have? What kind of technology did they use?	How did they satisfy their physical needs for food, clothing, shelter, transport and defence?	How did they find their country and how did they make it more habitable? What kinds of consequences did these changes have?	What did they produce? What types of work and occupations were there?

For the youngest children, the activity begins with a set of cards featuring simple questions and answers about prominent human cultures, such as the Romans, Greeks, or Mayans. Children read each question and select the correct answer, building confidence and familiarity with written information. This playful approach turns reading into a discovery process, helping them practice comprehension in a structured yet enjoyable way.

As children grow older, the activity becomes more complex. From around age seven, carefully selected books and texts on human cultures are introduced. Children browse freely, exploring material that matches their reading level, and use these texts to answer questions on the boards. Here, the activity shifts from simple recognition to purposeful research: children learn to formulate specific questions, navigate books, and extract the information they need.

Through this process, children discover how to evaluate texts critically. They learn to accept information that answers their questions and set aside material that is not relevant. This fosters independence, analytical thinking, and an understanding of how knowledge is organized and connected.

The main goal of the Table with Questions activity is not merely to learn about ancient cultures—it is to teach children how to work with text confidently and joyfully. By blending structure with freedom, the activity helps them develop literacy skills, research abilities, and a sense of order in their learning. Children leave this work with more than historical knowledge: they gain the tools to explore any subject through reading, critical thinking, and self-directed discovery.

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Literacy as service for school community

In Montessori education, literacy is never a competition. It is not about who reads the most books or earns the highest score. Instead, literacy is a tool for connection, communication, and service—something children use to help others and contribute to their community. When children read to classmates, explain a story, or share ideas through writing, they are using language to support, guide, and inspire.

At Montessori schools, there are many ways to make literacy visible and meaningful in the life of the community. One of the simplest and most powerful is a **school library**. Even in a small school, a dedicated corner filled with books can become a hub of curiosity, exploration, and shared reading. A library invites children to discover new stories and ideas and to share them with classmates. Another approach is to **host reading events**. Storytelling sessions, book fairs, or visits from authors allow children to celebrate literacy together. Students can share favorite books, poems, and personal stories with peers and families, creating a culture of reading that extends beyond the classroom walls. **Family Literacy Nights** are another opportunity to connect school and home. These workshops invite parents and caregivers to learn strategies that support reading and writing at home. Families practice hands-on activities, share books, and see how literacy can become a joyful, everyday part of family life.

Literacy can extend beyond the school through **community collaboration**. Children can participate in “going out” experiences, visiting local libraries, bookstores, or literacy organizations. They might host reading workshops, participate in local reading challenges, or invite authors to share their work. By connecting their literacy skills to the wider community, children experience the joy and responsibility of using language to help others learn and grow.

In Montessori education, literacy is a gift meant to be shared. When children use their reading and writing skills to serve others, they not only strengthen their own abilities—they build a caring, thoughtful, and connected school community.

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Story from the classroom

A Night with Andersen

*For six years, our school has hosted a special event for Elementary children called **A Night with Andersen**, inspired by a tradition that began in 2000 at a public library in the Czech Republic. Originally, children spent the night at the library, reading stories, playing games and puzzles, and falling asleep as the Good Night Elf and Borrowbook Fairy guided them to rest. Over time, this magical idea has grown into an international celebration, bringing schools, libraries, and social institutions together in countries such as Slovakia, Slovenia, Poland, and many others.*

*At our school, the event is eagerly anticipated each year, usually drawing between 20 and 40 children. The guides carefully prepare activities, while the children bring mats and sleeping bags and participate in preparing supper and breakfast. This year, the theme celebrated the 75th birthday of the internationally acclaimed children's book writer and illustrator **Petr Sís**. The children explored his book Ptačí sněm (The Birds Assembly), following the story from afternoon into evening.*

As part of the experience, children handcrafted their own bird masks and ventured into the park to engage in activities inspired by the magical birds in the story. Each bird had its own unique characteristics, and children explored them through games and imaginative play. Back at school, they shared a communal supper, continued reading—either more works by Sís or other favorite authors—and discussed the stories they explored. The evening concluded with guides reading aloud to help the children settle for the night.

*The main purpose of **A Night with Andersen** is to nurture reading with comprehension. By focusing deeply on a single book, children develop the ability to analyze story ideas, interpret meaning, and share their thoughts with peers. This experience lays the groundwork for seminar-style discussions, which are an essential tool in Montessori adolescent programs.*

Other goals of the event include:

- ***Introducing new books:** Children encounter a variety of literature, expanding their interests and imagination.*

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- ***Building community:*** *Students from different classes collaborate, share ideas, and create memories together.*
- ***New adventures:*** *Sleeping over in the school building, exploring unusual spaces like the attic, and cooking and dining together strengthen community bonds and foster independence.*

Through this joyful, immersive experience, children learn that reading is not just an individual activity—it is a shared adventure, a way to think, imagine, and connect with others.

Montessori School Andilek, Czech Republic

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How literacy is visible in Montessori Elementary classroom?	
Essential knowledge	
A broad range of vocabulary	Children encounter rich vocabulary through nomenclature of materials, stories, Cosmic Education topics, and hands-on research projects or Big Work projects. Vocabulary grows naturally through reading, storytelling, and oral discussions.
Functional grammar	Color-coded grammar symbols and sentence analysis exercises help children see the function of each word in a sentence, supporting understanding and use of grammar in writing and speech.
The functions of language	Students practice using language to inform, persuade, express emotions, and collaborate during classroom debates, presentations, role-playing activities, and Going Out experiences.
The main types of verbal interaction	Children engage in group discussions, peer teaching, seminar-style conversations, storytelling, debates, reading aloud sessions, and real-life interactions during Going Out experiences.
A range of literary and non-literary texts	Students read fiction (myths, fairytales, poetry, etc), non-fiction (history, science, cultural studies), and research texts in the library, during Big Work, or using variety of cards in prepared classroom.
Different styles and registers of language	Children adapt their language for storytelling, writing reports, poems, plays, persuasive texts, or instructions. They learn formal and informal registers through role-play, presentations, and correspondence activities.
Language and culture vary in different contexts	Activities like exploring hieroglyphs and all other kinds of writings help children understand that language, communication, and expression differ across cultures and contexts.
Core skills	
Communicate as a listener, speaker, reader and writer, in a variety of situations	Students read individually and in groups, present Big Work research, engage in classroom debates, write stories, and participate in reading and community events.
Monitor and adapt their own communication to the requirements of the situation	Through Grace and Courtesy lessons, peer discussions, Going Out experiences, and group

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	projects, children learn to adjust tone, word choice, and style based on audience and context.
Use and distinguish different types of texts	Children navigate fiction, non-fiction, research texts, poetry, and reports, matching reading material to purpose and understanding differences in format, style, and content.
Search for, collect and process information and to use aids	During Big Work and research projects, students gather information from books, reference materials, digital resources and guides, learning to extract relevant content and organize their findings.
Formulate and express their oral and written arguments in a convincing way appropriate to the context	Students present research, write reports, make posters, or lead discussions using evidence and structured reasoning, often guided by teachers but with increasing independence.
Attitudes (students value)	
A disposition to critical and constructive dialogue	Children participate in discussions, seminar-style conversations, peer feedback, and group problem-solving, respecting multiple viewpoints.
Aesthetic qualities and are willing to strive for them	Handwriting exercises, calligraphy, illustrated research projects, and book-making activities emphasize beauty and care in written work.
Interacting with others	Literacy activities are often collaborative: reading circles, peer teaching, research groups, and community events.
The impact of language on others	Children practice clear and thoughtful communication, noticing how words affect peers during debates, storytelling, reading aloud, or presentations.
Using language in a positive and socially responsible manner	Through Grace and Courtesy, reading for community and collaborative projects, students learn to use language to support, encourage, and connect with others.

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5 CHAPTER

MULTILINGUAL COMPETENCE

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Multilingual Competence

Multilingual competence is the ability to use multiple languages appropriately and effectively for communication. Much like literacy, it is rooted in four interrelated skills — listening, speaking, reading, and writing — and in the capacity to understand, express, and interpret ideas, emotions, and knowledge in diverse contexts. Importantly, multilingual competence goes beyond mechanical mastery of vocabulary and grammar. It emphasizes the ability to navigate across cultural and historical settings, to adapt communication according to context and need, and to develop intercultural awareness.

Knowledge

This competence requires knowledge of vocabulary and functional grammar of different languages and an awareness of the main types of verbal interaction and registers of language. Knowledge of societal conventions and the cultural aspect and variability of languages is important.

Skills

Essential skills for this competence consist of the ability to understand spoken messages, to initiate, sustain and conclude conversations and to read, understand and draft texts, with different levels of proficiency in different languages, according to the individual's needs, individuals should be able to use tools appropriately and learn languages formally, non – formally and informally throughout life.

Attitudes

A positive attitude involves the appreciation of cultural diversity, an interest and curiosity about different languages and intercultural communication. It also involves respect for each person's individual linguistic profile, including both respect for the mother tongue of persons belonging to minorities and/or with a migrant background and appreciation for a country's official languages as a common framework for interaction.

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Montessori Perspective: Language as a Tool for Communication and Thought

Each experience that was great enough, beautiful enough, brought forth words which were accepted and treasured. Thus were words a monument. To people who lived, rejoiced and suffered. They forged beautiful words out of the silence. Such is language in all its majesty and greatness. We must be imbued with a feeling for the greatness. We must open our eyes to receive the gift and be worthy of all that is handed on to us. You must be worthy if you are to be guides and custodians of the souls of the future. Words are not pebbles or little pieces of glass. They are the diamonds of immortal souls. Language must be transmitted with reverence for all that has taken place in order to crate it.

Maria Montessori, London Lectures, Lecture 17

Language has always been central to the human story. From the earliest communities, people needed a way to satisfy their fundamental needs and to cooperate with one another. Out of this necessity emerged spoken language, a tool of both survival and connection. Language was, from the very beginning, a shared agreement: certain sounds were linked to objects, actions, or ideas, and this collective understanding made communication possible. Over time, these agreements expanded into written systems, bringing new layers of complexity and precision. Symbols were created to represent sounds, spelling conventions were established, and languages continued to evolve as societies changed, invented, and refined their worlds. Thus, language is more than a system of words; it is a living testament to human collaboration, cultural identity, and the ongoing creation of meaning.

When Montessori education introduces children to language, it does so through a story of humanity. Language is presented not as an isolated school subject but as a human invention that made cooperation, culture, and civilisation possible. In this way, the Montessori approach aligns naturally with the EU's vision of multilingual competence. Both perspectives acknowledge language as a social tool — dynamic, historical, and deeply tied to human relationships.

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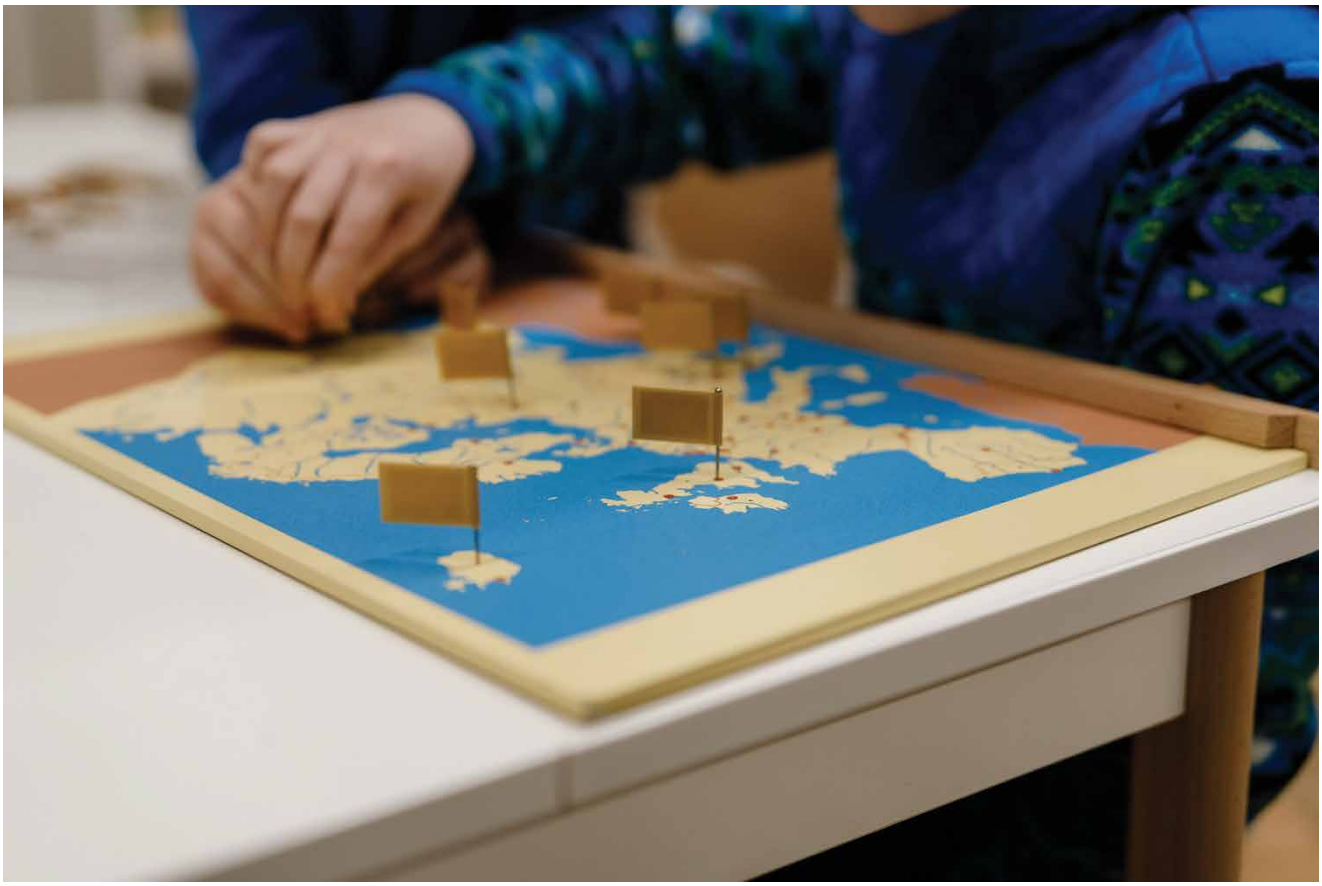
For children aged six to twelve, who are in the second plane of development according to Montessori pedagogy, this intersection is especially meaningful. At this stage, children are eager to explore culture, history, and the interconnectedness of human societies. Their reasoning mind seeks to understand *why* and *how* things came to be, and language becomes both the subject of exploration and the medium for expressing discoveries. The EU's framework for multilingual competence provides a contemporary lens through which we can understand and support this developmental need, while Montessori education offers concrete strategies and materials that allow children to live this competence in practice.

This chapter will explore how the EU's competence of multilingualism can be meaningfully implemented within Montessori education for children aged six to twelve. It will first examine the theoretical foundations of language learning in the elementary plane, then consider the practical approaches Montessori classrooms use to foster language development and finally highlight how these practices correspond with the EU's broader aims of multilingual and intercultural education.



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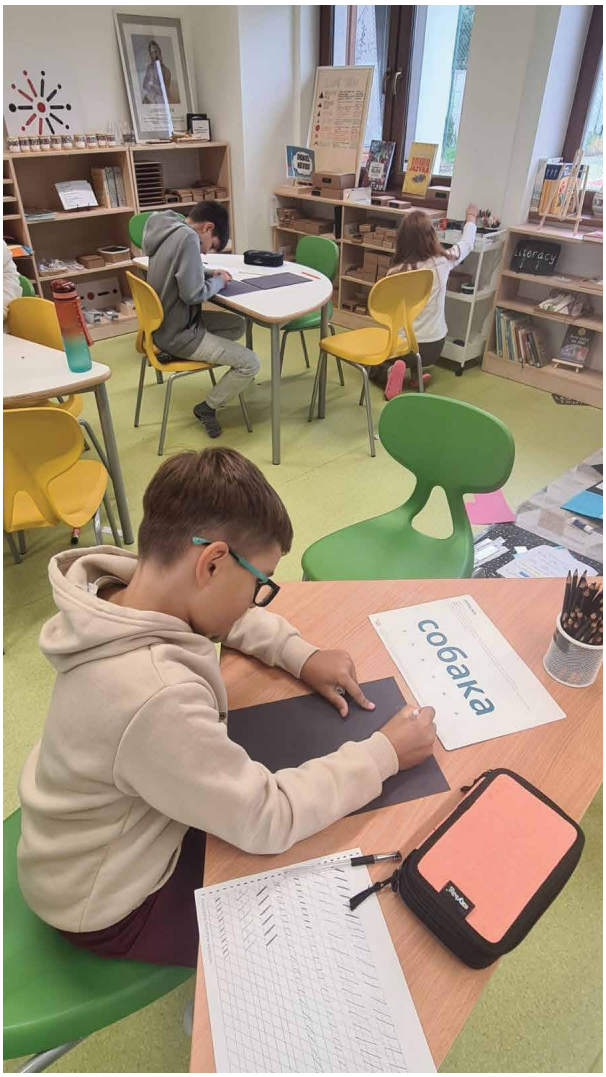
Language in the Elementary Years and the European Union's Multilingual Competence

As children enter the second plane of development, their relationship with knowledge changes profoundly. They are no longer content with gathering facts; instead, they seek to understand relationships, causes, and consequences. Their questions shift from *what is* to *why* and *what if*. This intellectual expansion drives creativity and helps them refine what has come before, while also shaping their capacity to make sense of the world.

In this developmental stage, language itself becomes an object of inquiry. Elementary children are curious not only about *using* language but also about how it works. They wonder why words follow a certain order, whether other languages arrange them differently, or how the same sound can carry different meanings in different words. This natural fascination reflects their growing reasoning powers and their desire to explore the deeper structures of human communication.



Montessori education nurtures this curiosity by presenting language as a human invention, a cultural achievement that has evolved across centuries. Children are not asked simply to memorize grammar or spelling rules, but to see language as a living, changing creation — something built and refined through cooperation, agreement, and cultural history. This approach makes language study meaningful and engaging, inviting children to view themselves as participants in an ongoing human story.

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At the same time, the elementary years are a period when children begin to develop a moral sense. They become aware that words carry responsibility, that every “I” who speaks or writes is accountable for what is expressed. Language is presented not only as a tool of thought but also as an ethical choice. Children learn to pause, to reflect before speaking, and to recognize that language can inspire or harm, uplift or diminish. The classroom becomes a training ground for dialogue, responsibility, and empathy.

The European Union’s definition of *multilingual competence* mirrors and enriches this Montessori perspective. According to the EU, multilingualism involves the ability to use different languages effectively and appropriately across contexts. It is not restricted to mechanical skills, but extends to listening, speaking, reading, and writing in ways that allow the individual to interpret and express ideas, emotions, and knowledge. Moreover, it emphasizes the cultural and historical dimensions of language, acknowledging that each language is shaped by the societies that use it and that competence involves intercultural understanding.

In this light, the Montessori approach and the EU’s competence framework converge. Both emphasize that language is not only a technical skill but also a human responsibility, deeply intertwined with culture, identity, and communication. For the child aged six to twelve, this means that language learning should be more than a progression of grammar lessons. It should be an imaginative, moral, and cultural exploration that equips the child to engage with multiple languages, to appreciate their diversity, and to use them responsibly within a broader society.

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Practical Implementation of Multilingual Competence in Montessori Elementary Education

The European Union defines multilingual competence as a mix of knowledge, skills, and attitudes. Montessori education for children aged six to twelve offers a natural framework to develop these through meaningful, interconnected learning. Language is central, and the curriculum allows children to explore and compare multiple languages, enhancing both proficiency and appreciation of linguistic diversity. From speaking to reading and creative writing, students build the knowledge, skills, and attitudes described in the EU framework. Let's have a look at how language is organized and how it can be combined with other languages in the classroom.

We introduce children to the importance of spoken language through the history of humankind, emphasizing how creative people were in developing language. Children discover that words carry culture, memory, and imagination. Through storytelling, and discussions, they encounter new vocabulary, explore different varieties of language use, and reflect on the lineage of their native language and where it comes from. In their "big work," children can investigate how many countries recognize English as an official language and consider the historical idea of a single, universal language. These activities develop listening and speaking skills in authentic contexts while also fostering awareness of multilingual connections and the creative nature of language.

Children learn the story of how writing began with the Phoenicians, Egyptians, Greeks, and Romans. They see the signs each culture used, compare them, and notice that every writing system has its own story. They also explore the tools people used, like papyrus, parchment, and early printing presses. Through this, children understand that languages are different but connected. They begin to see how multilingualism has always existed and become curious about where their own language comes from and how it links to others.

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In the classroom, children see that spoken words can be preserved through writing. The environment encourages them to start practicing building words and writing messages not only in their mother tongue but also in other languages. Using Montessori materials like sandpaper letters and the moveable alphabet, they explore different alphabets from the story of written language—Phoenician, Egyptian, Greek, Roman—and realise that every language carries ideas worth writing down. This way, children develop their reading and writing skills while understanding that language can exist beyond speech and across cultures.

Children progress toward reading fluency by first seeing adults as reading models and then practicing with cards, texts, and stories. When learning English, they focus on English letter sounds and decoding the letters. Once they master the alphabetical code, they can read independently. The classroom environment supports this by offering materials on the shelves—cards, texts, and literature—not only in their mother tongue but also in other languages. This allows children to practice reading across languages, interpret meaning, follow written instructions, and engage with increasingly complex texts.

In Montessori elementary classrooms, children explore words, their forms, and how they work in sentences—prefixes, suffixes, synonyms, antonyms, and parts of speech. This study can be introduced as a research project, comparing words and grammar across languages in the multilingual classroom. Children see patterns, similarities, and differences, deepening their understanding of language structure while developing skills in reading, writing, and expressing ideas clearly in more than one language.

In the Montessori classroom, language is a tool for children to express their ideas and creativity. They write stories, poems, research projects, and gradually discover their own voice. Children also create their own books, which they share with classmates on the

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classroom shelves, write class newspapers and newsletters for parents, make posters, and prepare invitations for outings. They keep daily journals where they record their work, thoughts, and reflections.

In a multilingual classroom, these activities can take place in different languages. Children can write stories, reports, or journals in English, their mother tongue, or other languages introduced in the classroom. They compare how words, sentence structures, and expressions differ, which deepens their understanding of language itself. Writing across languages helps them communicate more broadly, express ideas in multiple ways, and connect with different cultures, supporting the EU's goals for multilingual competence and lifelong language learning.

In the Montessori classroom, language learning combines knowledge, skills, and attitudes in a flexible, multilingual environment. Children gain **knowledge** of vocabulary, grammar, and cultural conventions, and develop **skills** in speaking, reading, writing, and interpreting language through activities such as word study, sentence analysis, and publishing their own texts, books, or newsletters. The environment and materials can be adapted to include multiple languages according to the children's needs, allowing them to explore and express themselves across languages. Through this approach, children also cultivate **attitudes** of curiosity, respect, and openness toward linguistic and cultural diversity, fully reflecting the EU's vision of multilingual competence.

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Fluency, Culture, and Confidence in Language Learning

In the Montessori Elementary classroom, language learning is not simply an academic subject but a living, dynamic process that connects the child to culture, humanity, and the wider world. Children in the second plane of development (ages 6–12) are naturally curious about how people in different parts of the world live, think, and communicate. This curiosity becomes a fertile ground for multilingual exploration — where language learning is approached not through rote memorization or correction of mistakes, but through meaningful, joyful discovery.

Even though English often serves as a shared bridge for global communication, Montessori education encourages the study of additional languages to broaden children's perspectives. Each language carries with it a unique way of understanding the world — its own rhythm, humor, and cultural symbols. Through stories, songs, geography, and cultural studies, children experience how language is intertwined with daily life, traditions, and history. This interdisciplinary approach, typical of the Montessori method, helps children see that learning another language is not just about vocabulary — it is about connecting with people and understanding the beauty of human diversity.

Fluency in Montessori classrooms is not defined by perfection, but by confidence and communication. Children are encouraged to use language freely, to express themselves, to make mistakes, and to learn from them. Whether they are presenting a research project in another language, greeting a visiting family in their mother tongue, or labeling a map in Spanish, these experiences help them see language as a living tool — flexible, creative, and deeply human.

This process also builds resilience and self-assurance. When children experience that their efforts to communicate are valued — even when imperfect — they develop a sense of linguistic courage. They understand that language serves connection and collaboration, not judgment. In this way, Montessori education helps children grow into confident multilingual citizens who use their voices to bridge cultures, share ideas, and celebrate the shared story of humanity.

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English as a First Foreign Language: Building Fluency and Multilingual Competence

Communicative Approach over Accuracy

Across Europe, English is widely taught as the first foreign language in many schools, reflecting its role as a global lingua franca. In teaching English, the emphasis often shifts from absolute accuracy to communicative fluency—the ability to use the language effectively to express ideas, interact with others, and understand meaning in real contexts. In this approach, mistakes are not seen as failures but as natural steps in the learning process. Creating a classroom environment where children feel safe to experiment, take risks, and speak without fear of judgment is essential for building confidence and fostering real communicative com

One Face – One Language Principle

An essential principle in teaching English—or any foreign language—is that it should be introduced through **full immersion**, ideally by a teacher who uses only that language in the classroom. The "one face—one language" approach ensures that children consistently associate the language with communication and meaning, rather than translating back and forth from their native language. This method supports natural language acquisition, encourages thinking directly in the foreign language, and helps children develop fluency more effectively.

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Language learning also becomes richer when it is embedded in **cultural experiences**. Teachers who are native or fluent speakers bring authentic cultural references, idiomatic expressions, and traditions into the classroom, providing children with a living context for the language. Stories, songs, celebrations, and real-life interactions allow learners to see the language as a tool for understanding people and their world, rather than as an abstract school subject.

Cultural Immersion and Translanguaging

At the same time, the classroom can benefit from **translanguaging**, a pedagogical strategy in which children are encouraged to draw on all their linguistic resources to make meaning. Translanguaging allows learners to discuss ideas in their mother tongue while experimenting with English, gradually transferring understanding and expression into the target language. This approach reduces anxiety, validates children's linguistic identities, and supports the development of multilingual competence. By combining immersive teaching, cultural experiences, and thoughtful use of translanguaging, schools can create environments where children not only **learn English fluently** but also developthe curiosity, confidence, and skills to embrace **additional languages**, fulfilling the EU's vision of multilingual competence.

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Storytelling in the Montessori Elementary Classroom

Storytelling is one of humanity's oldest and most effective ways to pass knowledge across generations. Listening to and sharing stories engages the brain, integrates different subjects, and enhances cognitive abilities. It also strengthens language skills, enriches vocabulary, and fosters literacy. In addition, storytelling promotes a sense of community, as children learn together, listen attentively, and share interpretations, highlighting the social dimension of learning.

Storytelling is woven throughout all subject areas in the Montessori elementary classroom. It also provides a powerful foundation for language development and multilingual learning. Listening, retelling, and participating in stories help children expand their vocabulary, understand grammar intuitively, and articulate complex ideas. When foreign languages are introduced through storytelling—ideally by teachers who speak exclusively in that language—children acquire language in meaningful contexts, connecting words to culture, emotions, and lived experiences. This approach fosters fluency, encourages experimentation without fear of mistakes, and nurtures a positive attitude toward learning multiple languages. By combining oral traditions, cultural experiences, and immersive language use, Montessori classrooms support children in developing the linguistic skills, curiosity, and intercultural understanding that are central to multilingual competence in a diverse and interconnected Europe.

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The Story of Communication of Signs: Written Language as Human Achievement

Language is one of humanity's greatest tools, allowing ideas to be defined, shared, and preserved across generations. In Montessori elementary classrooms, the **Story of the Communication of Signs** introduces children to the history and development of written language as a remarkable human achievement. The story is presented to show that written language did not emerge fully formed but **evolved over time**, shaped by the needs and creativity of different communities. Writing allowed people to memorise information, maintain records, and communicate across distances. It also spread through interaction and cooperation—through travel, migration, and the meeting of different peoples. This narrative emphasises the contributions of often-unsung heroes from the past, whose innovations continue to benefit us today. Children learn that language and writing are products of adaptation, collaboration, and human ingenuity.

Montessori teachers adapt this story to reflect the history of the **local written language** while also introducing examples from other linguistic traditions. For instance, the development of alphabets derived from the Mediterranean tradition can be compared with logographic systems like Chinese or Japanese, highlighting that written communication evolved differently across cultures. Children explore changes in alphabets, scripts, and writing tools—from stone, clay, and wood to papyrus and paper—

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learning how these innovations made literacy more accessible. They also investigate printing techniques and other inventions that allowed ideas to reach wider audiences, reinforcing the understanding that solutions to human needs vary across time and place.

The story naturally lends itself to **hands-on, multilingual learning activities.** Children enjoy experimenting with different writing systems, practicing their own names in various alphabets, and exploring calligraphy with brushes, ink, or clay. They may invent their own symbolic languages, create pictogram stories, or experiment with codes such as Morse code or sign language. Activities like weaving patterns or drawing timelines of communication inventions reinforce both the historical and practical aspects of writing, while encouraging creativity, fine motor skills, and an appreciation for diverse forms of expression.

This approach also fosters **multilingual awareness**. Children begin to notice that spoken languages differ in sounds and structures—some languages may use 300 phonetic sounds, while others have as few as 15 to 40. They learn that writing systems reflect cultural adaptation, migration, and contact between peoples. By exploring multiple languages and scripts, children develop respect for linguistic diversity and curiosity about how humans across the world communicate ideas differently. The story of writing, therefore, becomes not only a lesson in literacy but also an entry point to **multilingual competence**, encouraging children to appreciate language as a living, evolving tool shaped by culture, history, and human collaboration.

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Story from the classroom

Multilingualism as a bridge

In the little Spanish Montessori school where I once worked, the hallways echoed with English—even though we were deep in the heart of Spain. In my 6–12 classroom, we had an even mix of local Spanish children and expatriate families from all over the world. Yet, despite their curiosity and kindness, they existed a bit like oil and water: close, but not quite blending. The Spanish students were still finding their footing in English. The expat students, meanwhile, knew hardly any Spanish. They worked side by side, exchanged polite smiles, and helped one another when they could, but language cast a soft, invisible wall between them.

Then one morning, I told The Story of the Alphabet. Some children listened with familiar delight, others leaned in as if hearing a secret for the very first time. When the story ended, something subtle shifted in the room—as if a door had quietly opened.

The first to walk through that new door was a British boy. He approached me with bright eyes and said, "I want to learn Japanese. I want to go there someday, and I want to be ready." Perfect. We wrote out a little language study contract together—his goal, his study period, and the amount of time he would practice each day on the computer. Quietly, without fanfare, he began.

At first, no one noticed him slipping into language practice during his work cycle. Until—one afternoon—two Spanish girls came to me. They were shy but determined.
"We want to learn Polish," they whispered.
"Polish?" I asked, surprised.
They nodded. "We want to talk to our classmate. She doesn't speak Spanish… and we don't speak English yet."

Their reasoning was so beautifully simple. So off they went—with their own study contracts—to begin daily Polish practice. They made me promise not to tell anyone; they wanted it to be a surprise for the Polish-speaking girl. Soon after, one of the oldest expat boys approached my desk. "I want to learn Spanish," he said. "I want to understand our diving instructor better." Another contract. Another language. Another spark.

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Then a child asked to learn the language spoken by their grandparents. Another chose a language just because it sounded beautiful. Each new decision added a thread to a growing tapestry.

And slowly—almost imperceptibly at first—the room began to change.
Students who barely exchanged words before were now sharing how their lessons were going. They peeked at each other's screens, traded discoveries, laughed about confusing phrases, and celebrated when someone unlocked a new level in their language app.

The once-parallel groups began to meet in the middle. A shared curiosity about languages, ignited by one ancient story, became a gentle glue drawing them together. Multilingualism wasn't just a competence anymore—it was a bridge. A bridge built child by child, word by word, through their own joyful work.

AMI teacher Guna Petermane experience

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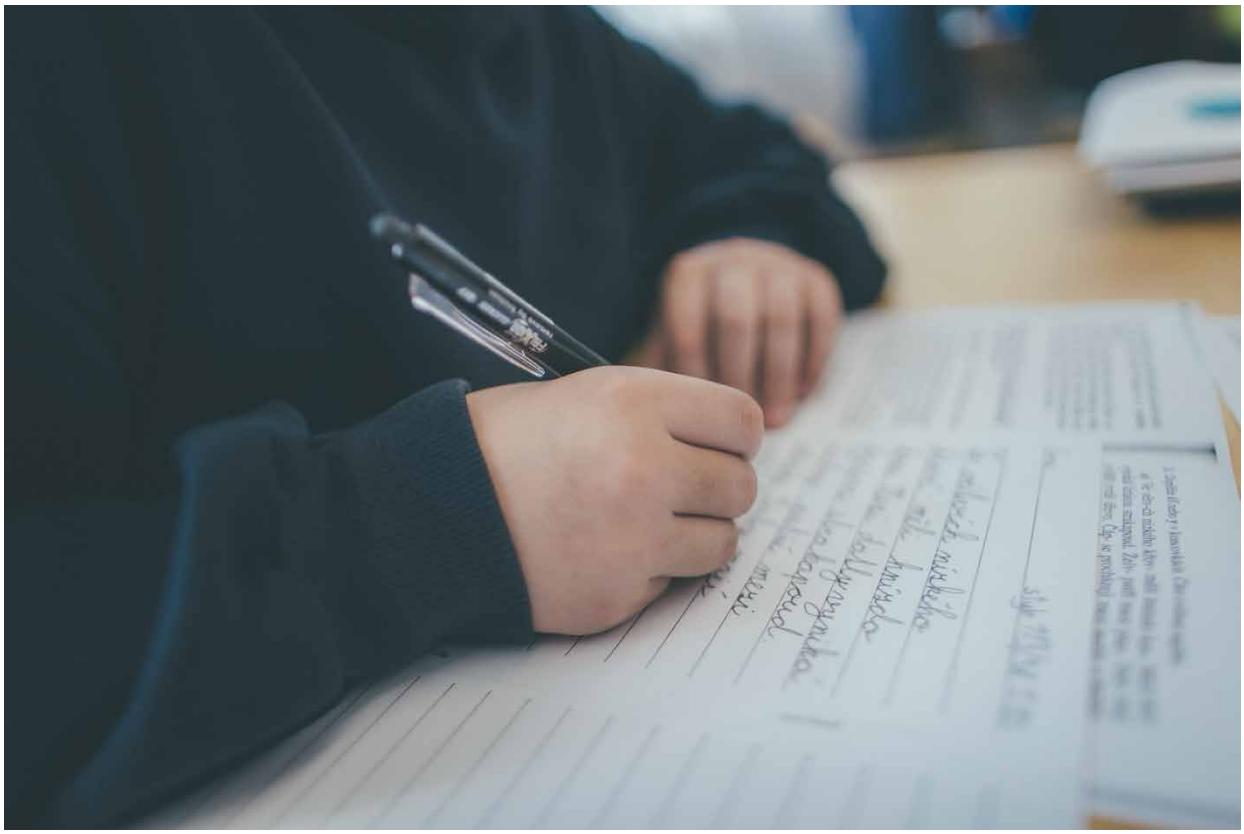
Writing as the Graphic Expression of Thought

In the Montessori classroom, writing is explored as a dynamic tool for thinking, communication, and self-expression, not just copying letters. Children connect the history and cultural development of written language with hands-on experiences, transforming ideas, questions, and observations into text. They practice writing across subjects using command cards, non-fiction projects, math problems, descriptive exercises, and fiction, while learning to read, interpret, and analyse texts. The environment supports multiple languages, allowing children to express themselves in their mother tongue and others. Through these activities, writing becomes a meaningful way to communicate, reflect, and develop literacy, creativity, and multilingual awareness.



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Story from the classroom

The Magic of Command Cards

In the Jolly HOMESCHOOL classroom, command cards are everywhere—on shelves, tables, and in little baskets. They are written in Slovak and English, each one tied to the current topic. Today, Mia picks a card that tells her to "Open your atlas and write 10 proper nouns in your notebook." She pauses for a moment, unsure what to do. Instead of waiting for a teacher, she walks over to her friend Alex and asks for advice. Together, they flip through the atlas, find interesting countries and cities, and Mia writes them carefully in her notebook.

Meanwhile, her classmates are also busy: some are opening books, reading the first sentence aloud, and copying it into their notebooks and doing the parsing of the words; others follow a sequence of steps on their cards, practicing math or science experiments. Each command card is a small adventure. Children learn not only the topic at hand, but also how to be independent, solve problems, and collaborate with peers.

Can you imagine having these cards in more than two languages for your international students? How much richer the learning could be, as children explore ideas and instructions in multiple languages!

Jolly HOME SCHOOL, Slovakia

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Promoting Multilingualism Through the Classroom Library

Variety of books in Multiple Languages

A rich classroom library is a powerful tool for fostering multilingual competence in Montessori elementary education. By providing a diverse collection of books, enciclopedia, and dictionaries in multiple languages, children are exposed to a wide range of vocabulary, sentence structures, and cultural perspectives. Shelves dedicated to different languages allow students to explore texts both in their mother tongue and in foreign languages, supporting natural language acquisition and reinforcing connections between languages. Access to dictionaries, bilingual books, and reference materials encourages children to independently investigate words, meanings, and grammatical structures, promoting curiosity and autonomy in language learning.

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Exposure to Cultural and Linguistic Diversity

The library also provides opportunities for cross-cultural exploration: stories, folktales, and non-fiction texts from different linguistic traditions help children understand that language is both a tool for communication and a window into diverse worldviews. Reading in multiple languages strengthens comprehension skills, nurtures empathy, and encourages children to appreciate the richness and variability of human expression. By integrating multilingual resources into daily classroom life, teachers create an environment where languages are living tools, used for learning, discovery, and self-expression, rather than abstract subjects to be memorised. In this way, the classroom library becomes a central hub for promoting fluency, literacy, and intercultural understanding.

Library Activities Supporting Storytelling and Writing

The classroom library naturally complements storytelling, writing, and oral traditions as part of a holistic approach to multilingual learning. Stories read aloud or explored independently in different languages reinforce vocabulary, sentence structures, and cultural understanding introduced through oral narratives. Children can retell these stories, act them out, or adapt them into their own written or artistic creations, linking reading comprehension with expressive skills. Access to books in multiple languages allows them to compare linguistic structures, explore translations, and develop awareness of similarities and differences between languages, strengthening both fluency and multilingual competence. Furthermore, integrating the library into group activities—such as shared readings, research projects, or collaborative storytelling—fosters dialogue, cooperation, and social learning, mirroring the oral traditions that underpin human communication. In this way, the library not only supports individual learning but also cultivates a rich, culturally aware, and linguistically diverse classroom environment, where children experience languages as dynamic tools for thinking, creativity, and connection with the wider world.

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Fostering Multilingual Competence Through Montessori Education

Montessori education offers a natural and holistic framework for promoting the European Union's vision of multilingual competence. Through storytelling, oral traditions, and the history of written language, children engage with language as a living, evolving tool—one that reflects culture, history, and human creativity. Practical writing activities, from command cards and non-fiction projects to fiction and descriptive writing, provide children with meaningful opportunities to express their thoughts while reinforcing reading comprehension. A thoughtfully curated classroom library further extends these experiences, exposing children to multiple languages, diverse texts, and cultural perspectives. Across all these activities, the focus is on communication, fluency, and understanding, rather than mere accuracy, encouraging children to take risks, explore ideas, and collaborate. By integrating these practices, Montessori classrooms cultivate not only literacy skills but also curiosity, empathy, and intercultural awareness, equipping children to navigate a multilingual Europe with confidence, creativity, and respect for linguistic and cultural diversity.

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The World is a classroom

Maria Montessori dreamed of a *nazione unica* — one united human nation, where education would help children recognize their shared belonging to humanity. She envisioned schools not as isolated institutions, but as gateways to the world, where children could understand that every culture, language, and way of life contributes to the great story of humankind. In the Montessori Elementary classroom, this vision becomes tangible. Here, the world itself is our classroom.

When we open our classroom doors — both literally and symbolically — we invite the world in. International projects, exchanges, and collaborations give children a living experience of what it means to belong to a global community. Through initiatives such as Erasmus+ mobility or online connections like eTwinning, children are not only learning about geography or languages — they are *living* them. They might write letters to pen pals in another country, discovering new alphabets and idioms, or participate in a joint science project where they share experiments and data with another Montessori school abroad. Sometimes, they travel, visiting their partner schools and experiencing firsthand the rhythm of daily life in another culture — cooking, singing, learning, and laughing together.

These encounters are not mere additions to academic learning; they are part of Montessori's *Cosmic Education*. In Cosmic Education, every child discovers their role in the interconnected web of life. When a child meets peers from another country, listens to how they celebrate holidays, or learns how they solve classroom challenges, this connection deepens. They begin to understand that diversity is not a barrier but a gift. Language differences become a

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source of curiosity rather than division, and every encounter becomes an opportunity for empathy, adaptability, and collaboration.

A Montessori child who works on an international art project learns not only to express themselves creatively but also to appreciate how art reflects local traditions and shared emotions. A student who engages in a collaborative research project online is developing both critical thinking and digital literacy. When children plan their own mobility visit, they learn organization, communication, and respect for the customs and expectations of others. Every moment becomes a lesson in global citizenship.

In our classrooms, the children's enthusiasm often grows with each new exchange. They prepare small gifts, write introductions, or practice basic words in another language before their online calls. They want to understand — not just to be understood. As guides, we witness the transformation: shy readers become confident speakers, and hesitant writers begin to express themselves with purpose because they know someone, somewhere, is reading their words. They are no longer working only for themselves or their teacher; they are communicating with the world.

This way of learning is deeply rooted in Montessori's belief in peace education. By fostering understanding through direct experience, we are helping to build a future generation that is open-minded, compassionate, and connected. When children grow up knowing friends in different countries, they begin to see the planet as a shared home. This, perhaps, is the most profound lesson of all.

In a Montessori school, the world is not something distant to be studied from maps and textbooks. It is something to be experienced, explored, and respected. Through international projects — big and small, physical and digital — we honor Montessori's vision of *nazione unica*. We raise children who not only know about the world but who *feel* part of it, ready to contribute their ideas, creativity, and kindness to the great, ongoing story of humanity.

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Story from the classroom

Erasmus children exchange in Turkey

In our Montessori Elementary classroom in Lithuania, children began an international project on environmental awareness with a Montessori school in Turkey. At first, they were both curious and nervous — it was their first time learning with children from another country. Before the first online meeting, they practiced short introductions in English and even learned a few Turkish words like merhaba (hello) and teşekkürler (thank you). When the two classes finally met online, the screens filled with excitement and laughter. The children shared who they were, what they loved, and the environmental problems they noticed in their own surroundings — forests full of litter, or rivers in need of care.

In their second online meeting, conversations deepened. Lithuanian children spoke about recycling, while their Turkish friends shared ideas for saving water and sea life. Slowly, the shy voices grew stronger. Children who had been quiet at first began to speak proudly, realizing that their ideas mattered. It was a moment of transformation — from nervous speakers to confident communicators united by a shared purpose. When the Lithuanian children later visited their friends in Turkey, they stepped into a world both new and familiar. The language, food, and traditions were different, yet inside the Montessori classroom, the shelves, materials, and spirit of learning felt just like home. Together they cooked, played, and worked on environmental projects — planting, recycling, and designing posters that spoke the universal language of care for the Earth.

By the end of the week, the children no longer saw themselves as "Lithuanian" or "Turkish" but as members of one shared world. They learned that language may differ, but kindness and curiosity connect us all. What began as a project about the environment became a lesson in empathy, courage, and global citizenship — a reminder that the world itself is a classroom.

Montessori akademija, Lithuania

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Preparing Multilingual environment

A multilingual Montessori classroom is not only a place where multiple languages are spoken but a living, breathing community that values language as a means of connection, thought, and exploration. The prepared environment allows children to use and hear more than one language naturally in their daily work, developing understanding before accuracy, communication before grammar, and belonging before perfection. Adults play a crucial role in shaping this environment. Ideally, each language present in the classroom is represented by a fluent, trained Montessori guide who uses it authentically and consistently. The two guides for two languages plan together, support one another, and ensure that both languages are used for real purposes—giving lessons, supporting work, solving everyday situations, and engaging in conversation. The classroom thus reflects unity within diversity, one community with many voices. In such an environment, language becomes visible, audible, and alive. The materials and labels in the classroom are bilingual, grammar symbols and nomenclature cards exist in more than one language, and books and resources reflect the linguistic and cultural diversity of the community. Children's work is displayed in all the languages spoken in the classroom, reinforcing that understanding and expression are valued equally regardless of the language used.

Every child brings a unique linguistic and cultural identity, and understanding each child's background is essential. Some children may use two or more languages at home, while others may encounter the second language only in school. The teacher's task is to build upon what is already secure—strengthening the dominant language and gradually expanding exposure to the other. Consistent dialogue with families helps maintain a realistic picture of the child's development and ensures that both languages are supported beyond the classroom walls.

Montessori pedagogy aligns naturally with the principles of second language acquisition. The learning process begins with meaningful experiences—experiments, storytelling, and real-life observation—from which vocabulary and expression emerge organically. Repetition across varied contexts, rather than drills, helps the child internalize new language. Freedom of choice allows children to decide in which language they wish to

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read, write, or record their work, building autonomy and confidence. Collaboration within mixed-age groups further supports natural language growth, as older children model vocabulary and sentence structure for younger peers.

In the multilingual classroom, communication always precedes academic language. The focus is first on comprehension, listening, and spontaneous speech rather than formal grammar. Real conversations, storytelling, and group discussions provide authentic opportunities for communication. Instead of interrupting or correcting errors, adults rephrase the child's words, maintaining trust and encouraging self-expression. This supports the development of Basic Interpersonal Communication Skills, upon which deeper academic proficiency can later be built.

The adults themselves are also language learners. When one guide models one language and another guide the second lenaguage, both showing curiosity and willingness to learn from each other, they demonstrate that language learning is a lifelong process. This mutual openness builds a culture of humility, respect, and curiosity that children naturally absorb. Because multilingualism extends beyond the classroom, collaboration with families is key. Parents can maintain exposure to both languages through reading, songs, travel, or simple daily conversation. The school can guide families by sharing ideas, bilingual materials, or organizing events that keep both languages alive in the child's world.

Ultimately, a multilingual Montessori classroom is a place of peace and cultural understanding. It honours each child's linguistic and cultural identity while inviting curiosity about others. Words, stories, songs, and traditions from different languages weave together into the life of the community, allowing children to experience diversity as something beautiful and natural. When language becomes a bridge rather than a barrier, the classroom becomes a model of the interconnected world we hope our children will one day help to create.

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How multilingual competence is visible in Montessori Elementary classroom?	
Essential knowledge (students know about)	
An appropriate range of vocabulary	Children expand vocabulary naturally through thematic studies (e.g. geography, zoology, botany) in multiple languages — labeling maps, naming animals, and using scientific terminology in both English and the second language. Picture cards, classified nomenclature, and bilingual materials support vocabulary building in context.
Functional grammar	Using the same Montessori grammar symbols and sentence analysis materials for both languages helps children see universal grammatical patterns. They compare sentence structures, verb tenses, and parts of speech, realizing that while words differ, functions remain constant.
The main types of verbal interaction	Children participate in daily routines, conversations, and presentations in both languages — from morning greetings and grace and courtesy lessons to discussions about their Great Work. They also engage in dialogues during Going Out experiences, where they must adapt language use to real-life contexts.
Different styles and registers of language	Through role-play, drama, and storytelling, children explore how tone and expression shift depending on audience and situation. For example, writing a formal letter to a local museum contrasts with composing an informal note for a friend.
How language and culture vary in different contexts	Cultural studies, songs, festivals, and traditional stories reveal how languages express identity and values. Children see that idioms, gestures, and greetings carry cultural meaning that differs from one community to another.
The role of language in their own and other cultures	Through comparing languages, children learn that language preserves history, traditions, and worldviews. Projects like “Languages of the World” maps or

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	"Proverbs from Different Cultures" highlight how people express shared human truths in diverse ways.
Societal conventions	Grace and Courtesy lessons, conducted in multiple languages, teach children polite forms of communication and appropriate expressions for different situations (e.g., thanking, apologizing, making requests).
Core skills (students should be able to)	
Understand spoken messages in the foreign language	Listening activities such as storytelling, songs, and conversations with native speakers help children develop comprehension. Teachers use rich oral language supported by gestures, images, and materials.
Initiate, sustain, and conclude conversations	In pair or group work, children practice real dialogues — for example, asking for help, expressing opinions, or conducting interviews in the target language. Role-play scenarios (e.g., at a café, on a trip) simulate authentic exchanges.
Read, understand and produce texts, including digital texts, appropriate to their needs	Children read bilingual books, simple articles, and cultural stories, and later write reflections or short compositions. Digital tools may be used to research topics in another language or create multimedia presentations.
Use tools appropriately and engage with languages formally, non-formally and informally	Dictionaries, word cards, language apps, and bilingual displays encourage independent language exploration. Informal interactions, like chatting with a visiting parent in their mother tongue, make language living and relational.
Monitor and adapt their own communication to the requirements of the situation	Children learn to switch between languages depending on their audience and to choose appropriate expressions for formal or casual contexts, for example, when presenting to classmates or speaking with guests.

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Appreciate how cultural differences influence language use and communication	Through comparing customs and expressions (e.g., greetings, humor, gestures), children gain sensitivity to cultural nuances. Class discussions and reflections help them appreciate diversity and avoid stereotypes.
Attitudes (students value)	
Learning new languages	Language learning is presented as an adventure — exploring new worlds and discovering connections between people. Curiosity and enthusiasm are fostered through stories, songs, and hands-on materials.
Cultural diversity	Classroom environments include books, art, and maps from around the world. Festivals and shared cultural events celebrate diversity and unity.
The role of languages in learning about their own and other cultures	Through reading literature, studying history, and exploring traditions in different languages, children see that language is a key to understanding others and oneself.
Intercultural communication	Exchange projects, pen pals, and interactions with families from diverse backgrounds provide authentic experiences of communication across cultures.
Respect for each person's individual linguistic profile	Every child's home language and background are acknowledged and respected — classroom displays may include greetings and labels in all represented languages.
Respect for the mother tongue of persons belonging to minority groups and those with a migrant background	Teachers invite families to share their languages and traditions. Children learn songs, phrases, or stories in classmates' languages, reinforcing inclusivity and belonging.

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6 CHAPTER

MATHEMATICAL COMPETENCE AND COMPETENCE IN SCIENCE, TECHNOLOGY AND ENGINEERING

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Mathematical competence and competence in science, technology and engineering

A Mathematical competence is the ability to develop and apply mathematical thinking and insight in order to solve a range of problems in everyday situations. Building on a sound mastery of numeracy, the emphasis is on process and activity, as well as knowledge. Mathematical competence involves, to different degrees, the ability and willingness to use mathematical modes of thought and presentation (formulas, models, constructs, graphs, charts).

Knowledge

Necessary knowledge in mathematics includes a sound knowledge of numbers, measures and structures, basic operations and basic mathematical presentations, an understanding of mathematical terms and concepts, and an awareness of the questions to which mathematics can offer answers.

Skills

An individual should have the skills to apply basic mathematical principles and processes in everyday contexts at home and work (e.g. financial skills), and to follow and assess chains of arguments. An individual should be able to reason mathematically, understand mathematical proof and communicate in mathematical language, use appropriate aids including statistical data and graphs, and understand the mathematical aspects of digitalisation.

Attitudes

A positive attitude in mathematics is based on the respect for truth and a willingness to look for reasons and to assess their validity.

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Competence in science refers to the ability and willingness to explain the natural world by making use of the body of knowledge and methodology employed, including observation and experimentation, in order to identify questions and to draw evidence-based conclusions. Competences in technology and engineering are applications of that knowledge and methodology in response to perceived human wants or needs. Competence in science, technology and engineering involves an understanding of the changes caused by human activity and responsibility as an individual citizen.

Knowledge

For science, technology and engineering, essential knowledge comprises the basic principles of the natural world, fundamental scientific concepts, theories, principles and methods, technology and technological products and processes, as well as an understanding of the impact of science, technology, engineering and human activity in general on the natural world. These competences should enable individuals to better understand the advances, limitations and risks of scientific theories, applications and technology in societies at large (in relation to decision-making, values, moral questions, culture, etc.).

Skills

Skills include the understanding of science as a process for the investigation through specific methodologies, including observations and controlled experiments, the ability to use logical and rational thought to verify a hypothesis and the readiness to discard one's own convictions when they contradict new experimental findings. It includes the ability to use and handle technological tools and machines as well as scientific data to achieve a goal or to reach an evidence-based decision or conclusion. Individuals should also be able to recognise the essential features of scientific inquiry and have the ability to communicate the conclusions and reasoning that led to them.

Attitude

Competence includes an attitude of critical appreciation and curiosity, a concern for ethical issues and support for both safety and environmental sustainability, in particular as regards scientific and technological progress in relation to oneself, family, community, and global issues.

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Early Mathematical Foundations in Montessori environment (Ages 3-6)

In a Montessori kindergarten, mathematics begins long before a child encounters written symbols or formal lessons. It begins in the child's hands, eyes, and heart—in the rhythm of daily routines and the joy of discovery. For children aged three to six, learning mathematics is not an abstract exercise but a living experience woven into their play, movement, and exploration of the world.

At this stage, children are in what Maria Montessori called the *"absorbent mind"* phase. Their capacity to take in information effortlessly is extraordinary. They are particularly sensitive to language and precision, which allows them to learn mathematical vocabulary naturally and use it meaningfully. A child might proudly say, "I divided the beads into equal groups," long before they could write a division symbol. Through conversation, imitation, and joyful repetition, the language of mathematics becomes part of their everyday speech.

The Montessori classroom is carefully designed to nurture this process. Every material, from the smallest spindle box to the golden beads, invites the child to explore relationships between quantities. The materials are beautiful, precise, and self-correcting, guiding the child toward concentration and understanding. The golden bead material, for example, allows children to *see* and *feel* the difference between a unit, a ten, a hundred, and a thousand. They can hold numbers in their hands, carry them across the room, build them, and exchange them. By physically combining and separating beads, they experience addition, subtraction, multiplication, and division in a tangible, joyful way.

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In this environment, abstract mathematical concepts are introduced gradually through concrete experience. The emphasis is always on *doing before thinking*, and *thinking before writing*. When a child counts apples for snack time or divides crayons among friends, they are not just learning to calculate—they are learning to reason, plan, and collaborate. Real-life situations such as setting the table, baking bread, or measuring seeds for planting provide endless opportunities for mathematical thinking.

Through these experiences, children begin to internalize key mathematical ideas: order, sequence, quantity, and pattern. The Montessori guide acts as a quiet observer, offering materials and language at just the right moment to match the child's curiosity. The result is a natural love of numbers—one that is grounded in reality, enriched by movement, and strengthened by success.

By the time Montessori children leave the kindergarten environment, they have developed not only a firm grasp of quantity and operation but also confidence in their own ability to solve problems. They see mathematics not as something separate from life, but as a way of understanding it. These early experiences form the roots of later scientific and numerical competence, nurturing a mindset of curiosity, logic, and joyful discovery that will guide them well into their elementary years and beyond.

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Building Mathematical Concepts in the Montessori Elementary Environment

The Montessori approach to mathematics focuses on supporting the **natural development of a child's mathematical sense**. This is achieved through a system of scientifically prepared materials that guide children from concrete experiences to abstract understanding.

In a Montessori Elementary classroom, mathematics begins not with memorization but with movement, touch, and discovery. Every material is designed with intention—crafted to make the invisible visible, the abstract concrete. When a child traces the golden beads with their fingers or arranges the fraction circles on a mat, they are not merely playing with objects; they are *thinking through their hands*. Each manipulation builds a bridge between the world they can see and the ideas they are beginning to understand.

These materials are not simply teaching aids—they are companions on the child's journey toward abstraction. A set of bead chains might first help a six-year-old count by twos or threes, but as time passes, that same material becomes the foundation for understanding multiplication, squares, and cubes. This evolution happens naturally, guided by curiosity and readiness rather than by adult instruction. The built-in control of error—so characteristic of Montessori design—allows children to notice and correct their own mistakes. There is no need for external judgment; the materials quietly guide reflection and self-correction, nurturing independence and confidence.

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This process reflects what Maria Montessori called *psychoarithmetic* and *psychogeometry*—ideas that see mathematical understanding as an organic part of human development. Children are not forced to "learn math"; they *unfold* it, step by step, through meaningful engagement with their environment. For every new level of comprehension, there is a material ready to meet the child's need: from number rods to decimal boards, from geometry sticks to the binomial cube. Each tool represents a milestone in their growing capacity for abstract thought.

As the children progress, the physical materials gradually give way to pure reasoning. One day, they realize they no longer need the beads or the fraction circles—the concepts live within them now. This transformation, from the concrete to the abstract, is one of the most profound journeys in Montessori education. It mirrors the European Union's vision of mathematical competence: not rote calculation, but deep understanding, problem-solving, and adaptability.

In this way, Montessori classrooms do more than teach math—they cultivate thinkers. The materials open a path where children joyfully experience how numbers, patterns, and relationships shape the world, preparing them to navigate both the tangible and the abstract with confidence and wonder.

Story from the classroom

Work of the hands help the mind to see

In the second year in the environment a group of students are gathered for follow up work. These students have been exploring multiplication through work with the checkerboard and practicing facts on the finger charts. They also have over the past several weeks explored concepts of addition and subtraction with the bead bars. They have arranged multiples, traded beads for larger quantities and even tested out the commutative law. This work has been valuable preparation leading to independent discoveries.

As a group the presentation begins with the teacher asking the student to lay out the red one bar once verbalizing " one taken one time", then taking the green two bar " two taken one time" continuing with the three and four bar before asking the students to continue until reaching the golden ten bar. "What would it look like if we took one two times?" M an eager student takes

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two red one bars out two times. "What about two taken two times?" M eager to show what they know takes out two green two bars and places them on the mat below the two bar taken one time while D shouts out FOUR. As the guide we work and take the one's column creating rows of one taken one time, two times, three times until we take one ten times.

" We are just counting" observes one students, "we have one, two, three, four"

As the guide after this observation I asked the children to continue with each bead bar taking it out two, three, four times until they've completed the column or row. I did not ask the students to calculate as this lesson is for the process of multiplication and to offer each student a separate revelation.

About ten minutes later as I am working with another group of children I hear M exclaim "we are doing multiplication!" with a big smile across her face.

Bead by bead, row by row , they construct the multiplication table. The material guides them without adult intervention. The control of error is set by their understanding of numbers and concrete material in their hands.

When the table is completed another action is taken unprompted. D – who enjoys finding the answer goes to the bead cabinet and grabs the ten square and trades it for the ten, ten bars, prompting M to go and get the nine square, suddenly there is a flurry of activity exchanging independent bars for the square of three, the square of four. The work took almost half of the work cycle and proud of their work the student ask to leave their mat until after snack so others can admire their efforts. Through this work a web of relationships, geometric patterns, and understanding of the rules of multiplication were revealed through the work of their hands, allowing their minds to see.

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Connecting Math to the Real World

In the Montessori Elementary classroom, mathematics is never confined to a single shelf or a specific time of day. It flows naturally through the children's daily experiences, quietly linking their abstract discoveries to the tangible world around them. When children begin to see numbers, shapes, and measurements not as isolated facts but as tools for understanding life, mathematics becomes alive—relevant, joyful, and purposeful.

It often starts with a spark of curiosity. A group of children might decide to build a model of an ancient Roman city after their history lesson. Soon, math enters the picture: they calculate scale, convert measurements, and adjust proportions to make their model fit the classroom space. Others, preparing an experiment on plant growth, might create tables to record data, measure the height of seedlings each day, and

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compare averages. Each activity gently weaves mathematical reasoning into a broader fabric of exploration, creativity, and collaboration.

Practical applications extend beyond the classroom walls. When children plan a class trip to the science museum, they must read timetables, estimate travel time, and work within a budget. “If we take the 10:15 train, we’ll arrive just in time for the workshop,” one might say, while another checks how much each ticket costs and whether they can afford a snack afterward. These small, real-life decisions nurture mathematical competence in a way no worksheet could ever achieve. In Montessori education, this integration reflects a deep respect for the child’s developing sense of independence and responsibility. Mathematics becomes a trusted companion in their journey toward understanding the world. They begin to see how numbers support their ambitions—how ratios, geometry, and data serve their ideas rather than limit them.

This approach resonates strongly with the European Union’s vision of mathematical competence: using knowledge and reasoning to solve problems in diverse contexts. By engaging with mathematics through meaningful experiences, Montessori children are not only mastering skills—they are building the confidence and flexibility to apply them wherever life takes them. Mathematics, in this way, ceases to be an abstract subject and becomes a language for living and learning.

Story from the classroom

how our expedition to the historic town of Banská Štiavnica was born

It all began quite unexpectedly – while working on a project about volcanoes. As Albert and Martin were exploring different types of volcanoes, they mentioned Banská Štiavnica, a town known for its rich history and volcanic origins. Their curiosity was like a small spark that quickly turned into a desire to see everything in real life – not just in pictures or encyclopaedias.

And so the idea of an expedition was born. But before we could set off, the boys had to figure out the most important part: the preparation. And this was exactly the moment when we saw what incredible mathematical abilities children can develop when they plan a real and meaningful going out.

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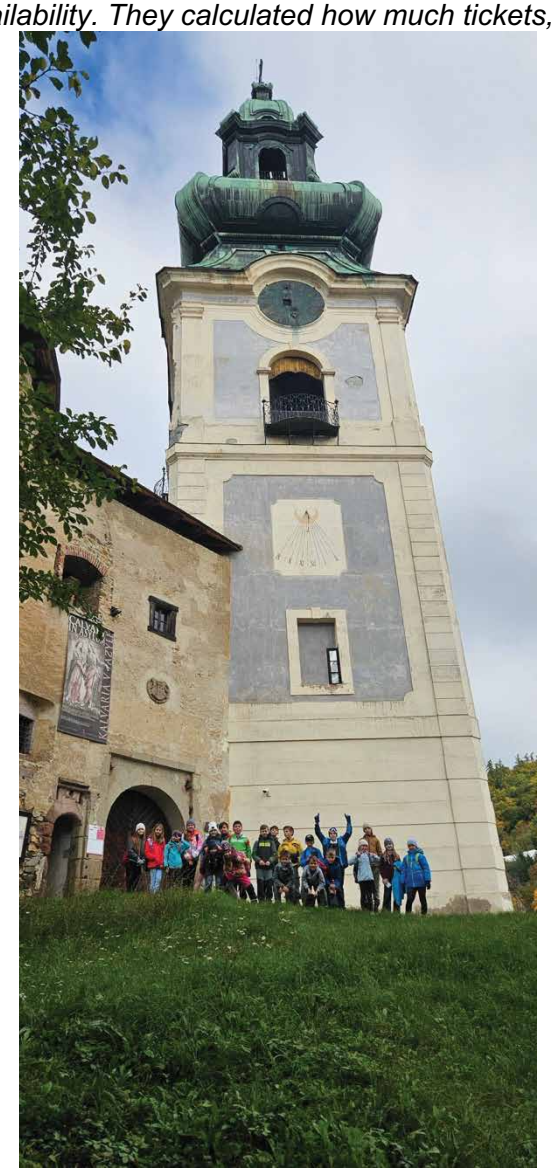
Albert and Martin looked up transportation options, compared departure and arrival times, counted transfers, and estimated travel duration. They chose accommodation – comparing prices, capacity, distance from the centre, and availability. They calculated how much tickets, activities, and meals would cost.

Suddenly, mathematics was no longer a set of exercises in a notebook. It became a bridge they needed to turn their trip into reality.

In their planning, everything they already knew came into play – understanding time, working with timetables, basic operations, and estimation. And each step was guided by thoughtful questions: How much does it cost? How much do we need? What is the most efficient option? All of this happened under the supervision of the teachers, but with a strong emphasis on their independence, responsibility, and decision-making skills.

The expedition turned out wonderfully. We visited important landmarks, learned about remarkable personalities connected to Banská Štiavnica, and most importantly – the children experienced learning that was real, meaningful, and deeply connected to their own interests.



Jolly HOME SCHOOL, Slovakia

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Linking Learning with Reality at Every Age

From the very beginning of their educational journey, Montessori children learn that mathematics is not something that exists only in books—it lives all around them. A three-year-old might count how many apples are needed for snack time or notice how many are left after sharing with friends. Numbers come alive through daily actions, and quantity takes on meaning through purpose. The same happens when children tend to their classroom garden, measuring soil, watering plants, and keeping track of growth. Even the simple act of maintaining a daily calendar—recording the date, the weather, and the season—anchors mathematical understanding in real life.

As children move into the Elementary years, this connection between learning and life deepens. The Montessori classroom for ages 6 to 12 offers what Maria Montessori called a “dual environment”: one that exists both within the classroom and out in the world. Inside, the materials and lessons give children the keys to explore mathematical, scientific, and social concepts. But the true magic happens when they take that knowledge beyond the classroom walls.

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It is not unusual to see a group of children setting out for a small adventure—perhaps a trip to the local market to buy ingredients for a shared meal. What seems like a simple outing is actually a lesson rich with learning: they plan a budget, calculate prices, compare options, and ensure their purchases stay within the limits of what they can afford. Along the way, they navigate streets using maps, read signs, and even make choices based on nutritional information. Mathematics here is not abstract—it is lived, tested, and enjoyed.

This freedom to explore and apply learning in real contexts nurtures a deep sense of competence and independence. The child begins to see themselves not as a passive learner, but as a capable member of society. They learn that knowledge carries responsibility and that mathematics, logic, and organization are essential tools for contributing to their community.

Within the classroom, mixed-age groupings enhance this experience further. A younger child might observe an older peer calculating the cost of materials for a group project, while an older student learns patience, leadership, and empathy through guiding others. These interactions naturally cultivate cooperation, moral awareness, and a sense of belonging—values that mathematics alone cannot teach, but which it quietly supports through structure and clarity.

In every stage of development, Montessori education ensures that mathematics remains grounded in reality. Whether it's through counting apples, tracking the seasons, or managing a real-world budget, children learn that numbers are not just symbols—they are the language through which we understand, care for, and engage with the world.

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Story from the classroom

Math is everywhere

In our classroom, mathematics often begins in the most unexpected ways. One of the children's favourite projects is baking a treat for their classmates – a simple, joyful activity that naturally turns into a rich mathematical adventure.

Throughout the year, there is always a moment when someone calls out: "Let's bake!" And from that moment, the classroom transforms into a small planning studio. First, the children create a shopping list: flour, eggs, sugar… Then comes the real challenge – turning this list into a budget.

At the shop, they compare prices, check which brand offers more for less, and figure out how many packs they actually need. They add up the totals, subtract what we already have in the classroom, and make decisions: "If we buy the cheaper cocoa, we can afford strawberries too." The goal is simple: stay within budget and still bake something delicious. With older children, the mathematical thinking becomes even more sophisticated. They calculate discounts, estimate cost per unit, and evaluate which option truly is the best deal. Suddenly, percentage calculations and ratios are not abstract – they become essential tools for real-life decision-making.

Throughout the whole process, something beautiful happens. The children are not only strengthening number sense and financial literacy; they are planning, negotiating, problem-solving, and collaborating. And when the shopping is done and the ingredients are laid out on the table, they finally get to bake – measuring, counting, pouring, and adjusting the recipe as needed.

But the most special moment comes at the very end, when they share what they baked.
Because the exchange of money is not just about buying things.
It is about creating joy – making someone else, or even myself, happy.

Jolly HOME SCHOOL, Slovakia

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Building Mathematical and Scientific Thinking through Hands-On Exploration

In the Montessori Elementary classroom, mathematics and science are not separate subjects—they are ways of understanding the world. Children are natural experimenters and problem-solvers. They don't just study facts; they *live* them through projects that unite numbers, observation, imagination, and cooperation.

One day, a group of children might decide to recreate the Solar System in the hallway. Together, they calculate scale ratios, measure distances, and plan their model's layout. Soon, they're working with decimals, proportions, and geometry—but they are also budgeting for materials, writing labels, and preparing a presentation. What begins as a "math project" unfolds into a complete experience of scientific modelling, teamwork, and communication.

In another corner, children might spend the night at school to observe and record temperature changes over 24 hours. With thermometers, tables, and notebooks, they connect their data to the rotation of the Earth, discovering patterns of heat and light. The classroom becomes a laboratory of real phenomena, where curiosity drives the process.

Montessori educators can intentionally weave such projects into their lessons. The key is integration—connecting math and science to real contexts and allowing the child to take ownership of discovery. The guide's role is to offer tools, structure, and gentle direction, while the children themselves construct meaning.

By engaging in these kinds of *Great Works*, children develop not only mathematical accuracy but also scientific reasoning and planning abilities. They learn to hypothesize, test, measure, adjust, and communicate results—skills that are at the heart of both STEM competence and the Montessori vision of education for life.

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History, Discovery, and the Art of Inquiry

Children are naturally fascinated by how things came to be—how people learned to measure time, why tools evolved, and who first discovered the secrets of nature. Montessori guides can build on this innate curiosity through storytelling and historical context, transforming abstract lessons into meaningful journeys of discovery.

Imagine beginning a math lesson not with numbers but with a story: ancient people measuring their fields with footsteps, or sailors using the stars to navigate. These stories of human invention show that measurement, calculation, and problem-solving grew from real human needs. From there, children can explore hands-on: measuring their classroom using hand spans, comparing results, and inventing their own "standard units" before discovering why shared systems like meters and seconds became essential.

The same spirit of exploration guides the study of biology and geography. The "Who Am I?" Animal Game, for instance, invites students to think like scientists—asking questions, sorting data, identifying relationships. They begin to see patterns and organize knowledge, developing the early habits of analytical thinking.

Through such integrated lessons, the classroom becomes a place where history, science, and art flow together. The story of the pencil leads to experiments with graphite and kaolin. The making of iron gall ink connects botany, chemistry, and language as students collect oak galls, mix solutions, and write poems with their homemade ink. Every activity is a small echo of human curiosity—of how civilization itself advanced through observation, invention, and creativity.

In this way, the Montessori guide acts as both storyteller and scientist, offering a narrative that gives children context, purpose, and wonder. Learning becomes not an obligation but a discovery of humankind's shared intellectual heritage.

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Story from the classroom

Mathematical thinking in Afternoon Tea Party

One of the most special moments in our school is our Afternoon Tea Party – gentle gatherings where children become the teachers and parents become their curious learners.

As families sit down with tea and biscuits, children proudly take their parents by the hand: "Come, I want to show you something!"

Parents are often drawn straight to the mathematics shelves – the golden beads, fraction circles, bead chains. What feels mysterious to adults feels wonderfully clear to the children.

And then the real teaching begins.
"Look, this is how I exchange ten units for one ten."
"See? A thousand is just a cube of tens."
"Let me show you how I think about this problem…"

They don't just demonstrate the steps — they reveal their mathematical thinking. Parents suddenly see that mathematics is not only counting or measuring but explaining why something works.

You can see admiration in the parents' eyes, and pride in the children's voices.
For a moment, the classroom feels transformed: calm, joyful, and full of understanding.

By the end of the tea, everyone leaves closer than they arrived — parents inspired, children empowered, and mathematics shining as something meaningful, human, and shared.

Jolly HOME SCHOOL, Slovakia

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The Montessori Path to Engineering and Numeric Mastery

Mathematical understanding in Montessori grows like a tree—from solid roots in concrete experience to the branching abstraction of reasoning. Children begin by handling bead chains, wooden hierarchies, and felt squares, slowly internalizing the patterns and relationships that define number systems.

Working with the Wooden Hierarchical Material, they see numbers as living quantities, each order—units, tens, hundreds, thousands—embodied in wood and color. They explore how these values relate, laying the foundation for advanced tools like the Large Bead Frame. Similarly, through the Multiplication of Orders with felt squares, children grasp the structure of the decimal system, visualizing how tens multiplied by tens create hundreds, and tenths multiplied by tenths create hundredths.

Engineering thinking naturally emerges through this kind of reasoning. When students measure the circumference of a circle, they discover geometry as both an art and a science. Soon, they are creating posters that compare diameters and circumferences, calculating π, and connecting these discoveries to art and design.

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Scientific experiments deepen this connection. In “The Plant Needs Minerals” study, children act as researchers—controlling variables, recording data in their work diaries, and drawing conclusions about what sustains life. Similarly, geography command cards and the “Work of Air and Water” experiments invite observation, hypothesis-making, and field study, blending geography, physics, and environmental science.

Through daily reflection in work diaries, children document not just what they did but *how* they thought. These journals help them plan, observe, and evaluate—core skills in both science and engineering processes.

Each activity, from drawing lines inspired by Kandinsky to studying sediment at a riverbank, helps children recognize the unity of all knowledge. Numbers, forces, and forms are no longer separate domains—they are expressions of the same cosmic order. In this living curriculum, the seeds of numeric precision, scientific method, and engineering imagination grow side by side, preparing the child not just for further study but for a lifetime of curiosity and purposeful creation.

Engineering is an inseparable part of Montessori Cosmic Education. Students aged 6–12 learn through projects, experiments, and practical demonstrations, which allows them to better understand and apply acquired knowledge in the real world.

In Montessori Cosmic Education, students do not learn specific information by heart. They receive key presentations that provide essential information, which they then process in their own ways into versatile, innovative, and self-directed projects. They gradually connect new knowledge with previous knowledge and find their own new challenges and ideas for solving them. Working on their own projects develops logical

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thinking, problem-solving abilities, and, last but not least, they learn what it means to collaborate and how to do it.

The knowledge a student gains in the classroom is linked to real life, and after integrating new information, the student always seeks to discover and explore that knowledge in the real world around them. They look for ways to use new knowledge in the real world and have an unlimited field for creativity and support for their real-life projects or the production of various kinds of models.

Model making is an inherent part primarily of Geography (models of mountain ranges, countries, various types of erosion, the Solar System), Biology (cell models, models of muscle function), but also History, if we recall that history in Montessori is the history of inventions—students explore all human inventions from the hand axe to the latest technologies, and for every invention, they are offered the opportunity to make or at least examine and understand its model.

Students in the Montessori Elementary cycle (six years) progressively move through the entire history of human inventions, thus facing the challenges that human beings have solved since they first appeared on Earth. Children study the stories of inventors and thus become inventors themselves. The human being is introduced to children as an “Engineer”—a skillful, intelligent, and kind creator of this world. And from this moment on, children are comprehensively guided to become such human beings themselves.

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Practical tips and suggestions developing the competence

Developing numerical, scientific, and engineering skills in children is not about memorizing facts—it's about nurturing curiosity, reasoning, and a love for discovery. In Montessori education, these skills grow naturally when children are invited to explore the real world through meaningful experiences, both at school and at home. Below are practical ideas and examples that help bring this vision to life.

At School: Cultivating Curiosity and Understanding

- **When introducing each new topic, tell children a real story from history.** Stories awaken imagination and connect abstract knowledge to human experience. A lesson about geometry can begin with the story of ancient Egyptian land surveyors who measured fields after the Nile floods—showing how geometry emerged from practical need. When introducing the decimal system, teachers might tell the story of how humans learned to count and trade, moving from pebbles and knots to written numerals. These stories help children see that mathematics, science, and engineering evolved from human curiosity and creativity.
- **Provide children with relevant information from the first day of school.** Children do not need to wait until upper grades to explore scientific or mathematical ideas. Even six-year-olds can be introduced to the *laws of nature* through simple experiments and vivid presentations. For example, a lower elementary group can observe evaporation by leaving a dish of water on the windowsill or can trace the "journey of a drop of water" through the Great River Story. The goal is not to master complex theory but to spark awareness and excitement that grows deeper each year.
- **Give children overviews and keys to unlock the world.** Instead of overwhelming children with isolated details, offer them the "big picture." Montessori Great Lessons—such as *The Coming of the Universe*, *The Story of Numbers*, and *The Story of Writing*—serve as keys that open vast fields

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of knowledge. After hearing the Story of Numbers, for example, children might choose to explore Roman numerals, number systems from different cultures, or the invention of zero. The overview inspires independent exploration; each child's curiosity becomes the engine of deeper learning.

- **Connect lessons to real, hands-on projects.**
  Let children apply what they learn through projects that combine math, science, and creativity. Building a model bridge introduces measurement, weight distribution, and simple mechanics. Growing plants connects botany and arithmetic as they measure height, count leaves, and record data in charts. By linking knowledge to purposeful activity, abstract concepts become living realities.

At Home: Bringing Learning into Everyday Life

- **Observe the world around you and talk to children about what you see.**
  A simple walk becomes a science lesson when you notice the shape of leaves, the patterns of clouds, or the way shadows move. Ask questions like, "Why do some trees lose their leaves while others don't?" or "How does the angle of the sun change our shadow?" Encourage children to wonder, to think, and to find explanations through books or experiments.
- **Try to impress children with reality.**
  Show children the awe and beauty of the real world—how a bridge stands, how rainbows form, how seeds grow. Take time to explore museums, farms, construction sites, or nature trails. Real experiences make abstract knowledge meaningful. A visit to a planetarium, for instance, can transform a lesson about the solar system into a lifelong fascination with astronomy.
- **Use professional terms naturally.**
  Children love precise language. When cooking together, say "We're measuring 200 milliliters of milk" or "This structure is symmetrical." Using correct terminology—temperature, density, balance, volume—builds familiarity and confidence with scientific and mathematical language.

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- **Plan shopping trips together.**
  Let children help create the family shopping list, compare prices, calculate totals, and decide how to stay within budget. Older children can calculate discounts, estimate cost per unit, and evaluate the best deals. These real-life experiences develop number sense and financial literacy effortlessly.
- **Plan vacations and trips collaboratively.**
  Invite children to study maps, calculate distances, and plan routes. Discuss time zones, currency exchange, or the science of flight. Create a trip budget together, assigning roles: one child tracks expenses, another calculates total travel time. These tasks combine geography, mathematics, and responsibility in a fun, practical way.
- **Involve children in household planning.**
  Turn everyday routines into opportunities for reasoning and organization. Make charts for cleaning schedules, meal planning, or family projects. If you're cooking together, discuss proportions: "If the recipe serves four, how much do we need for six people?" Measuring, timing, and planning together strengthen both math and life skills.
- **Create shared collections and visual records.**
  Encourage children to collect and classify real-world items—leaves, rocks, shells, or even bottle caps. Label and organize them by type, size, or location. Make maps of places visited or plan future destinations, adding facts about their geography or culture. These tangible experiences train observation, categorization, and critical thinking—the same mental habits that underlie scientific inquiry.

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How Mathematical competence and competence in science, technology and engineering is visible in the Montessori Elementary classroom?	
Essential knowledge (students need to know about)	
Numbers, measures and structures	Children work with mathematical materials such as the bead chains, fraction insets, and geometric solids to explore relationships between quantities, patterns, and structures. They use real measurements in projects—measuring distances on maps, calculating scale for models, or recording temperature and time during experiments.
Basic operations and basic mathematical presentations	Operations—addition, subtraction, multiplication, and division—are learned through concrete manipulation using the golden bead material, stamp game, bead frames, and other Montessori Math materials. These activities progress from concrete to abstract, ensuring deep conceptual understanding.
Mathematical terms and concepts	Mathematical language is introduced naturally and precisely. Children use correct terminology in context—speaking about “squares,” “thousands,” “multiples,” or “equilateral triangles”—and learn to connect symbols with meaning through conversation, storytelling, and exploration.
An awareness of the questions to which mathematics can offer answers	Through real-life projects, such as budgeting for a trip, tracking plant growth, or designing a map, children discover that mathematics answers practical and theoretical questions. They see that math helps to solve problems, explain patterns, and support decision-making.
Basic principles of the natural world	Geography, biology, chemistry, and physics lessons begin with “Great Stories” that present the formation of the universe, the coming of life, and the interdependence of systems. Experiments on air, water, and plants allow children to discover physical laws through observation.

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Fundamental scientific concepts, theories, principles and methods	Scientific understanding develops through hands-on experimentation—studying states of matter, photosynthesis, erosion, and simple mechanics. Children use the scientific method intuitively: asking questions, hypothesizing, experimenting, and observing outcomes.
Science as a process for the investigation of nature	Science is not presented as memorization of facts but as a living process. Children investigate nature through experiments such as *The Work of Air* or *The River*, record data, compare results, and derive natural laws. They keep journals documenting findings and reflections.
Technology and technological products and processes	Children explore simple machines, tools, and building processes through engineering-based tasks—constructing bridges, testing materials, or creating models. They use technology appropriately for research, data recording, and presentation, guided by safety and purpose.
The impact of science, technology, engineering and human activity in general on the natural world	Presentations on ecology, ecosystems, sustainability, and human innovation help children understand how human actions shape the environment. Projects such as energy studies, recycling, and exploring local ecosystems cultivate responsibility toward nature and society.
Core skills (students should be able to)	
Apply basic mathematical principles and processes in everyday contexts at home and work, including financial skills	Students use math for real purposes—planning class trips, shopping for needs of the classroom, dividing group work fairly, or managing classroom budgets. Financial literacy is introduced naturally through these experiences.
Follow and assess chains of arguments	Through mathematical problem-solving, geometry proofs, and science experiments, children learn to follow logical steps and assess reasoning. They discuss results collectively, comparing hypotheses and outcomes.
To reason mathematically	Montessori materials such as the Bead Frames and Geometry Cabinet encourage reasoning about quantity, shape, and proportion. Children explain their thought processes verbally, strengthening analytical skills.

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Understand mathematical proof	While formal proofs come later, children build the foundation by discovering consistent relationships—such as the formula for a triangle's area or the constant ratio of a circle's circumference to its diameter—through direct exploration and repetition.
Communicate in mathematical language	Children present their findings using correct terminology, written equations, charts, and drawings. They discuss their reasoning with peers and guides, often using visual aids like graphs or geometric figures.
Use appropriate aids, including statistical data and graphs	In projects like recording weather patterns or plant growth, children collect, organize, and represent data through charts and graphs. This visual representation reinforces analytical thinking.
Use and handle technological tools and machines	Students learn to use simple tools—compasses, balances, magnifiers, and microscopes—and gradually integrate digital technologies for research and presentations, always in a purposeful, hands-on way.
Investigate nature through controlled experiments	Experiments such as *Plant Needs Minerals* or *The Work of Air* teach children to set up fair tests, control variables, and record data carefully. They learn to predict, observe, and conclude systematically.
Use and handle scientific data to achieve a goal or to reach an evidence-based decision or conclusion	Students design small-scale research projects—e.g., testing materials for strength in a bridge model or comparing soil types for planting—and base conclusions on collected evidence.
Be able to recognise the essential features of scientific inquiry	Through repeated experimentation and journaling, children understand that inquiry involves asking questions, testing, observing, and drawing conclusions. They come to see science as a process of discovery rather than a set of answers.
Attitudes (students value)	
The respect for truth	Montessori culture emphasizes accuracy and honesty in observation. Children learn that data and results must reflect what they actually saw, not what they hoped to find.
The willingness to look for reasons	Curiosity drives learning: children constantly ask "why" and "how." Guides nurture this by redirecting questions toward discovery and independent reasoning.

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The willingness to assess validity of reasons	Through peer collaboration, children learn to evaluate each other's reasoning—checking calculations, comparing results, and refining ideas through respectful discussion.
Critical appreciation and curiosity	The Montessori environment sustains curiosity through freedom of choice, hands-on materials, and real-world connections. Children learn to appreciate complexity and beauty in both math and science.
Interest in ethical issues and respect for both safety and sustainability, in particular as regards scientific and technological progress in relation to oneself, family, community and global issues	Through cosmic education, children understand the interdependence of life and the impact of human activity. They learn about responsible innovation, conservation, and the ethical use of resources, linking science to moral and ecological awareness.

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7 CHAPTER

DIGITAL COMPETENCE

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Digital competence

Digital competence involves the confident, **critical and responsible** use of, and **engagement with**, digital technologies for learning, at work, and for **participation in society.** It includes information and data literacy, communication and collaboration, media literacy, digital content creation (including programming), safety (including digital well-being and competences related to cybersecurity), intellectual property related questions, problem solving and critical thinking.

Knowledge

Individuals should understand how digital technologies can **support communication, creativity and innovation**, and be aware of their opportunities, limitations, effects and risks. They should understand the general principles, mechanisms and logic underlying evolving digital technologies and know the basic function and use of different devices, software, and networks. Individuals should take a critical approach to the validity, reliability and impact of information and data made available by digital means and be aware of the legal and ethical principles involved in engaging with digital technologies.

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Skills

Individuals should be able to use digital technologies to **support their active citizenship and social inclusion, collaboration with others, and creativity towards personal, social or commercial goals**. Skills include the ability to use, access, filter, evaluate, create, program and share digital content. Individuals should be able to manage and protect information, content, data, and digital identities, as well as recognise and effectively engage with software, devices, artificial intelligence or robots.

Attitude

Engagement with digital technologies and content requires a **reflective and critical**, yet **curious**, **openminded and forward-looking attitude** to their evolution. It also requires an **ethical, safe and responsible approach to the use** of these tools.

Links:

- 2022: DigComp 2.2: The Digital Competence Framework for Citizens - With new examples of knowledge, skills and attitudes
- 2017: DigComp 2.1: The Digital Competence Framework for Citizens with eight proficiency levels and examples of use
- 2016: DigComp 2.0: The Digital Competence Framework for Citizens. Update Phase 1: the Conceptual Reference Model
- 2013: DigComp: A Framework for Developing and Understanding Digital Competence in Europe
- 2012: Report on Online consultation Experts' views digital competence
- 2012: Digital Competence in Practice: An Analysis of Frameworks

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Digital technology in the times of Maria Montessori

"An education capable of saving humanity is no small undertaking; it involves the spiritual development of man, the enhancement of his value as an individual, and the preparation of young people to understand the times in which they live."

Maria Montessori. Education and Peace

If Maria Montessori could walk into a modern classroom today, she might be astonished to see children holding tablets instead of hands-on materials, researching with voice assistants instead of encyclopaedias, and learning from videos instead of impressionistic charts and stories. Yet, after the initial surprise, she would almost certainly settle into her familiar posture of observation—quiet, attentive, analytical. She would study the children, not the devices. She would take notes. And then she would begin asking questions—scientific ones.

How does this tool affect the child's concentration?
Does it support independence or create dependency?
Does it foster exploration or passive consumption?
What kind of human being does this environment help shape?

Montessori was, before everything else, a scientist. Her educational approach arose from repeated cycles of observation, experimentation, and refinement. And it is this very scientific spirit that can guide our thinking about digital technology in Montessori environments today.

Seeing technology through the Montessori lens

Montessori believed deeply that education must evolve alongside society. She observed that the early twentieth century was becoming increasingly mechanized and wrote, "*Wherever possible, mechanical contrivances are introduced for every detail of*

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practical life, so that our children may be fitted to take part in a civilization which is entirely based on machines."

In her time, "machines" meant typewriters, automobiles, or telephones. Today, our equivalents are smartphones, coding platforms, cloud-based documents, and artificial intelligence. The world has changed dramatically, but her message endures: children must be prepared for the world they will inhabit.

Yet Montessori would also caution us that preparation must respect developmental needs. Screens and digital tools are not inherently educational simply because they are modern. They must be introduced with intention, always in harmony with the child's stage of development and always in service of independence, responsibility, and meaningful exploration.

Montessori the Scientist: weighing benefits and risks

If Montessori were alive today, she would not rush to embrace or reject digital devices. She would study them. She would observe their effects on attention, creativity, relationships, and problem-solving. She would ask, *What are the measurable outcomes? How does this influence human development?*

Modern scientific research, such as guidance from the World Health Organization, helps provide balance. WHO recommends limited, developmentally appropriate screen use for children, and its rationale aligns closely with Montessori principles: screens should support learning, not replace movement, tactile exploration, or human interaction.

In a Montessori classroom, digital tools might be used in purposeful ways, where the digital moment sparks curiosity, but the real work—the exploration, experimentation, and internalization—happens through hands-on experience. This balance between mind and hand is quintessentially Montessori.

Montessori the Educator: technology as a meaningful tool

Montessori classrooms have always incorporated the scientific tools of their era—globes, magnifying glasses, compasses, barometers, and other tools for exploration.

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These were the “technologies” that allowed children to understand the world more deeply. If Montessori were designing an elementary classroom today, she would likely consider digital devices part of this continuum of tools, but she would insist they be used purposefully:

- for research
- for writing and publishing reports
- for designing presentations
- for coding simple algorithms that strengthen logic
- for exploring scientific or mathematical simulations impossible to reproduce physically
- for collaboration and communication with peers in other parts of the world

The tool itself is never the focus. The *development of the child* is.

As scholar Angeline Stoll Lillard notes, digital competence in a Montessori context is not merely about operating software; it is about “finding, analyzing, judging, integrating, and communicating information.” It is thinking work—not button-pressing.

Montessori the Anthropologist: preserving human dignity in a digital age

Montessori’s work was not limited to pedagogy; she was also an anthropologist concerned with the role of education in shaping culture and society. Her reflections prompt us toward an important question: How does digital technology influence the child’s developing sense of self, community, and purpose?

In an age where communication is increasingly mediated through screens, Montessori’s focus on peace, empathy, and human connection becomes more vital. Digital competence must include ethical competence: *How do we communicate respectfully online? How do we verify information before spreading it? How do we*

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recognize bias, persuasion, or misinformation? How do we maintain healthy relationships with digital tools?

These questions help the child maintain their humanity in a world where attention, identity, and emotion are often commodified.

Beyond the debate: toward true digital competence

The question is not whether Montessori schools *should* use technology.
The real question is: How can technology serve the Montessori vision of education for life?

Digital competence, in this sense, is not about mastering devices; it is about understanding them—how they work, when to use them, and why. It means raising children who can think critically, collaborate responsibly, and create meaningfully.

In a Montessori environment, this might look like:

- researching Leonardo da Vinci's machines on a tablet,
- building a physical model inspired by his sketches,
- documenting the process through photos or videos,
- and presenting the final work to peers.

Here, digital technology enriches learning but never replaces the fundamental Montessori elements of curiosity, creativity, movement, collaboration, and purposeful work.

If Maria Montessori were alive today, she would not fear digital tools—she would study them. She would observe their effects, analyse their influence, and guide their integration with scientific rigor and deep respect for the child's developmental needs.

In doing so, digital competence becomes a natural extension of Montessori education: a preparation for life in both the physical and digital worlds, rooted in wisdom, balance, and humanity.

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From Curiosity to Digital Awareness: developing critical thinking in the Montessori classroom

In every Montessori classroom, curiosity hums softly in the air. It lives in the way children bend over a globe to trace the routes of ancient explorers; in their excitement as they discover that a humble caterpillar becomes a butterfly; and in the quiet triumph of solving a long-division problem for the very first time. This curiosity is not accidental — it is the essence of Montessori education. And it is from this wellspring of curiosity that authentic digital awareness and critical thinking begin to grow.

Freedom to Choose: the foundation of independent inquiry

In a Montessori classroom, choice is sacred. A child moves to the shelf, selects a material, and begins to work — guided not by external rewards but by an inner spark of motivation. This same principle shapes their relationship with information. Whether they are researching volcanoes, Roman roads, or animal adaptations, children are free to explore and discover at their own pace.

But with freedom comes responsibility — the responsibility to think, to evaluate, and to understand. The ability to find information is not enough. Children must learn to interpret it.

From the earliest reading experiences, Montessori guides introduce activities that lay the groundwork for critical literacy. Command cards and “Who Am I?” cards encourage children to look beyond the surface — to interpret clues, extract meaning, and connect ideas.

When a child reads, *“I have a hard shell and live both in water and on land. Who am I?”* they are not simply guessing *a turtle*. They are practicing inference, deduction, and pattern recognition — the same mental habits they will later use to distinguish truth from misinformation in the digital world.

As children move into the elementary years, their curiosity evolves from *what* to *why* and *how*. They begin to see that knowledge is dynamic and that different sources can tell different stories.

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Story from the classroom

Comparing sources and perspectives

One afternoon, a group of upper elementary students researching the solar system encountered a curious contradiction. An older book in the classroom library still listed Pluto as a planet. The newer encyclopedia — and the websites they later checked — did not.

"Why does this book say Pluto is a planet, but the website says it isn't?"
"Who decides what's true in science?" "Does information change?"

Their teacher didn't answer. Instead, the children investigated. They read articles about the International Astronomical Union. They learned how scientific classifications change over time. They debated whether Pluto should still be considered a planet.

Through this single discovery, the children understood something essential:
Knowledge evolves. Sources differ. Truth must be examined, not assumed.

They learned to check publication dates, question authorship, and seek confirmation from multiple perspectives. These habits form the foundation of digital literacy. Before children ever pick up a device, they are already practicing the skills of a critical thinker: comparing, questioning, and searching for evidence.

Montessori Akademija, Lithuania

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Thinking, Not Memorizing: the art of questioning

In Montessori education, the goal is not to memorize facts but to learn how to think. Every material, every conversation, and every project encourages children to explore relationships, cause and effect, and the complexity of human experience.

History studies, for example, are never reduced to the question, *"When was the Industrial Revolution?"* Instead, children are invited into deeper reflection: *How did the Industrial Revolution change the way people lived? Who benefited from these changes, and who was left behind? If you lived during that time, what decisions would you have made?*

There is no single "correct" answer. These questions develop empathy, perspective-taking, and judgment — the pillars of critical thinking. This same mindset is essential for navigating the digital world. When children encounter online content, they must learn to ask: *Who created this, and why? What evidence supports it? Is there another perspective?*

Montessori education gives them the confidence — and the practice — to ask these questions with courage and clarity.

Bridging digital awareness with Montessori thinking

When we nurture critical thinking in the classroom, we prepare children not only for academic learning but for life in the digital age. A child who compares sources in a library will naturally question what they read online. A child who explores bias in historical narratives will recognize bias in media. A child who practices respectful disagreement during group projects will approach digital communication with empathy and restraint.

Montessori education does not reject technology — it insists on mindful use. Just as we teach children to handle scissors safely, we must guide them to navigate the digital world with discernment and responsibility. By nurturing curiosity, independence, and thoughtful reflection,

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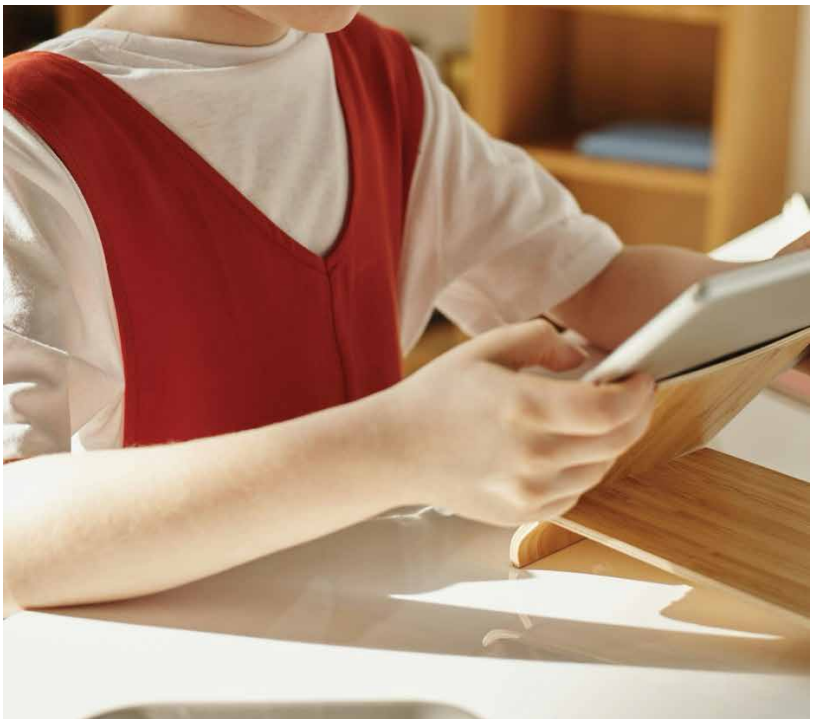
we help children grow into responsible digital citizens — individuals who engage with information critically, ethically, and creatively.

The Montessori classroom does not simply prepare children to use technology.
It prepares them to understand it. They learn not only how to access knowledge, but how to question it; not only how to consume content, but how to evaluate and respond to it with intelligence and integrity.



Story from the classroom

Critical thinking with digital tools

In Montessori School Andílek, children who use digital tools for research learn to think critically through simple, powerful practices:

- ***Select at least two books in addition to digital sources** when preparing research.*
- ***Create comparison tables** noting the source, author, date of publication, style, and verifiability of information.*
- ***Compare textbooks from different countries** on the same topic to identify variations in perspective.*

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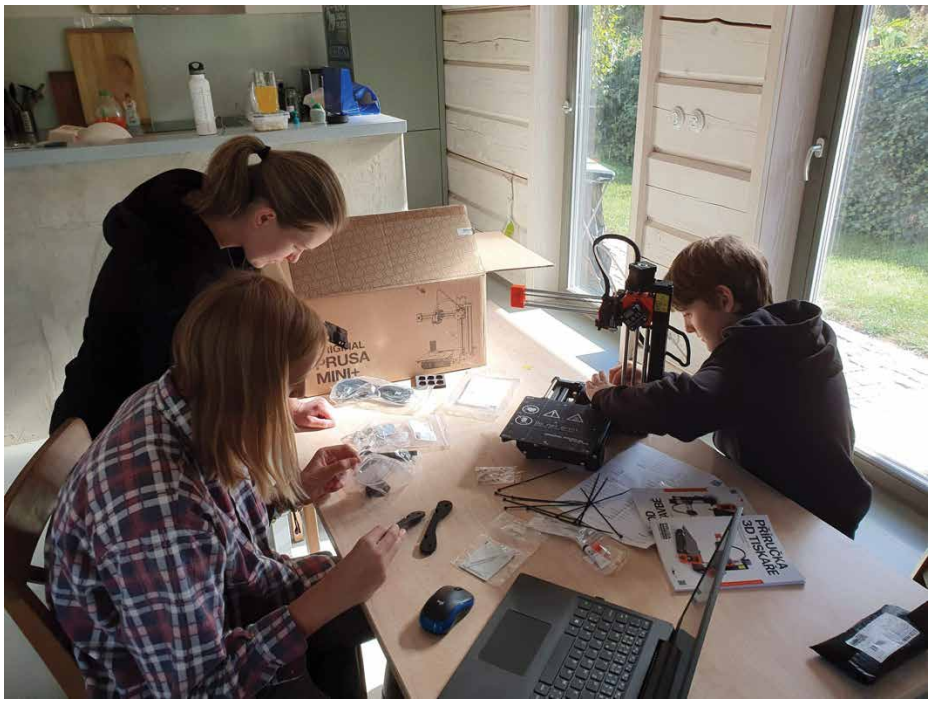
- ***Find the same topic in three media forms*** *(book, online article, YouTube video/social media post).*
  Then record:
  – date; medium
  – author; main message
  – purpose of the content
  Finally: compare differences and discuss why they exist.
- ***Color-code facts and emotions*** *in a review: How does the author use each?*
- ***Change the point of view****: compare how two media sources describe the same historical event, then write an article reflecting a chosen viewpoint or interest.*
- ***Community circle topics*** *such as:*
  – How do we recognize a credible source?
  – Are there more risks on the internet or in books?
  – Have I ever believed something that later turned out to be false?
  – How do we distinguish information from opinion?
- *These activities do more than teach "digital safety." They cultivate a mindset — a way of thinking that values truth, evidence, and reflection.*



Montessori School Andilek, Czech Republic

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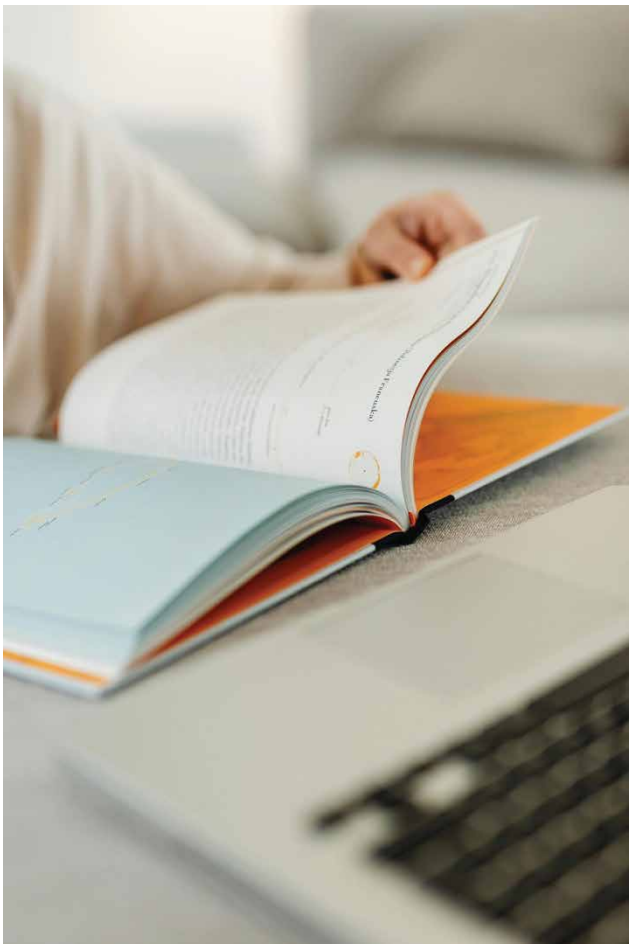
From real life to digital life: learning to choose good over bad

Recognizing security as a human need

In Montessori education, the Fundamental Needs of Humans lesson always brings a moment of grounding. Children sit together and consider what every human being—past and present—needs to live with dignity: food, shelter, protection, transportation, community, art, spiritual needs. As the conversation flows across time and cultures, they begin to understand that security is not merely the absence of danger; it is a condition that allows growth.

Today, children must navigate a world where security has expanded beyond physical surroundings. The modern child must learn to protect their digital identity just as earlier civilizations protected their settlements. This raises an important reflection point for teachers: How do we help children recognize that their actions in the digital world carry real consequences, and that safeguarding their information is now a part of safeguarding themselves?



By framing digital safety as an extension of the universal need for protection, children can more intuitively understand why it matters—because it connects to something they already know deeply.

Moral development extends beyond the classroom walls

Montessori classrooms are built to nurture moral sensibilities through lived experiences. Children learn fairness by negotiating roles in group work, compassion by helping a younger peer, and responsibility by caring for the materials that

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belong to the whole community. These experiences form the backbone of their ethical development.

Digital citizenship is simply another chapter in the same developmental story. A child who has practiced speaking kindly, observing turn-taking, and listening with respect is already prepared for parallel behavior online. The task for the teacher is not to introduce a new moral framework, but to guide children in recognizing continuity:

The same values that shape peaceful coexistence in the classroom shape peaceful coexistence online. When teachers view digital behaviour through the same lens as everyday social behaviour, it becomes easier to support children in developing consistency, clarity, and integrity across both worlds.

Helping children analyse choices—not memorize rules

Montessori students thrive when we ask, *"What do you think?"* rather than *"Do as I say."* The same principle must guide digital competence. Digital dilemmas—privacy, misinformation, respectful communication—cannot be solved with rigid rule lists. Instead, they require thoughtful analysis. Children must be able to ask themselves: *Is this respectful? Is this responsible? Is this honest? Is this safe?*

This is not about teaching children what to think but empowering them to *become thinkers.* Teachers can encourage discussion and reflection in the same way we do with historical narratives or scientific questions. Each digital scenario becomes an opportunity to examine intention, impact, and ethical reasoning—skills that are increasingly vital as children encounter more complex digital environments.

The Guide's Role: cultivating reflection, not policing behaviour

Montessori teachers already know the delicate balance between freedom and responsibility. Digital life does not change this; it reinforces it. The teacher's role is not to monitor every digital choice a child makes, nor to create fear around technology. Instead, it is to cultivate habits of reflection, empathy, and self-regulation—skills that prevent harmful behaviour before it arises.

When children understand *why* something matters, they no longer rely on external enforcement. They begin making decisions based on internalized values, shaped by years of community life, mutual respect, and independent work.

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Teachers can support this by:

- Observing how children discuss fairness or justice in real situations.
- Encouraging open conversations about trust, privacy, and respect.
- Highlighting connections between classroom behaviour and digital interactions.
- Creating space for children to ask difficult questions without fear.

In this way, digital competence becomes a continuation of the Montessori vision: helping children grow into individuals who act with conscience, compassion, and clarity.

Ultimately, the transition from real-life morality to digital morality is not a leap—it is a gentle extension of what Montessori education already does beautifully.

Children who feel safe will seek to make others feel safe. Children who understand responsibility will act responsibly online. Children who think critically will not follow misleading information blindly. Children who experience respect will become respectful participants in digital spaces.

The digital world does not require a different kind of child. It requires the same grounded, thoughtful, self-aware individuals Montessori education has always sought to cultivate. As Montessori teachers, our task is to help children carry their well-developed moral compass into every part of their lives—including the one that happens behind a screen.

Story from the classroom

Conversations about digital life

At Montessori school **Andílek**, conversations about digital life are woven naturally into everyday school culture. They arise in community circles, during IT classes, on the farm stay, and in informal moments when children bring real experiences to the group. These are not isolated lessons but an ongoing dialogue—one that includes teachers, students, and parents working together.

- respectful online behaviour - emails, messages, groups - this is connected and establishes civility in casual situations.

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- lessons in grace and courtesy: How to write a comment that doesn't offend? Responding to online teasing (e.g. Don't respond immediately, don’t write anything you wouldn't say face to face, give support to the person being teased...)
- appreciation of others' contributions after working together online (I appreciate that you added a chart...)
- perception of humor and boundaries - e.g. watch a meme together - who is it funny for, could it make fun of someone, how do I know this boundary - rule: if you hesitate, don't post.
- respect for privacy: when to share something? Do I have permission? Could it hurt someone? Does it make sense to post it?
- community circle discussion: how would I feel if someone wrote about me like this? When was the last time I showed kindness online? How can I be a support to others online?
- education for digital citizenship: verifying information before sharing it. Handling your own digital footprint responsibly. Respect for platform rules and community policies. Awareness of the impact of one's own actions on others. Ability to admit a mistake and correct it e.g. deleting misleading content
- we use external lectures, refer to free websites such as www.hoax.cz or www.snopes.com

Montessori School Andilek, Czech Republic

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From screens to reality: helping children find true heroes in the digital era

Every Montessori guide knows the moment well: a child bursts into the room, energized by something unbelievable they've just seen online. "Someone solved a Rubik's cube in under five seconds!" "I watched a climber scale a mountain without any ropes!" Their voices rise with awe, and we can feel the genuine admiration behind their words. In these moments, we witness a deep and beautiful truth about the elementary child: the longing for heroes.

Maria Montessori described children in the second plane of development as seekers of greatness. They are drawn to the extraordinary—to courage, intelligence, strength, determination. It is the age of imagination and moral exploration, when children look for role models who can show them what human beings are capable of.

In today's world, however, many of the "extraordinary" figures they encounter first are YouTubers, gamers, TikTok personalities, or celebrities. These digital figures are often exciting, but their contributions may be narrow, fleeting, or grounded in performance rather than meaningful achievement. Yet the children's admiration is real—not because they are "obsessed with screens," but because they are in a developmental stage that naturally seeks inspiration. The question for us, as educators and parents, is gentle but essential: How do we help children expand their vision of heroism beyond what the digital world offers?

Guiding children toward real heroes

Montessori education gives us a remarkable advantage: our classrooms are already rich with real human achievement. Cosmic Education, in particular, offers a vast landscape of extraordinary individuals and forces that have shaped our world.

We introduce children to:

- **The invisible heroes of nature**, like bacteria that enrich soil or trees that produce oxygen.

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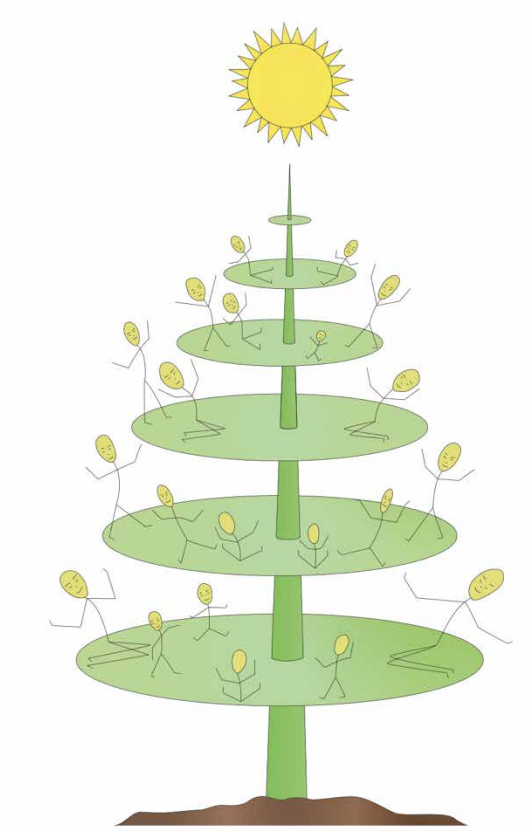
- **The great forces**, such as air and water, portrayed in impressionistic charts as powerful agents sculpting the Earth.
- **The pioneers of science and history**—Galileo challenging tradition, Marie Curie risking everything for discovery, Nelson Mandela working tirelessly for justice.



These stories give children not only *information* but *inspiration*. They help children see that heroism exists in many forms and that extraordinary contributions often come from dedication, perseverance, and service.

Children begin to understand that the world is full of heroes who have shaped civilizations, saved species, cured diseases, created art, or explained the mysteries of the universe. Their concept of "greatness" expands from digital icons to the extraordinary real figures who have changed the world.

Balancing digital life with real-world encounters

Of course, the digital world is part of children's lives. They will continue to watch videos, follow online personalities, and admire the talent they see on the internet. The aim is not to suppress that interest but to balance it with rich, lived experiences.

Imagine if some of the time spent in front of screens was replaced with encounters like these:

- Visiting a beekeeper and learning how bees sustain entire ecosystems.
- Meeting a local firefighter and hearing stories of courage rooted in service, not entertainment.
- Exploring ancient ruins or museums where the achievements of civilizations come alive.

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- Watching a biologist release rehabilitated birds back into the wild.
- Reading about engineers who design clean-water systems or scientists working on climate solutions.

Children who experience real heroes in action develop admiration that is deeper, more grounded, and more nourishing. They learn that greatness is not just about popularity or extraordinary talent—it's about contribution, persistence, and the desire to make life better for others.

This shift doesn't require dramatic interventions. It grows naturally through: honest conversations, hands-on experiences, storytelling, and a community culture that celebrates meaningful achievement over digital fame.

As Montessori educators and parents, our work is not to steer children away from digital influencers, but to open the world wider**.** When children have access to real explorers, scientists, activists, artists, and everyday heroes in their community, something begins to shift. They start asking different questions:

- What can *I* contribute?
- Where are my talents needed?
- Who helps others in ways we don't always see?
- How did this person become who they are?

When digital figures reappear in conversation—as they will—the children approach them with a more balanced perspective. The digital world no longer defines their sense of heroism; it becomes one of many sources of inspiration.

In the end, the goal is not to choose heroes for children, but to help them develop the inner sense that recognizes: effort over spectacle, substance over appearance, contribution over popularity.

Montessori elementary education is uniquely positioned to do this. Through cosmic stories, scientific exploration, historical narratives, and connections with the community, we help children discover the extraordinary everywhere—in forests, oceans, laboratories, ancient civilizations, and the human heart.

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By guiding children from screens back into the richness of reality, we help them find heroes who are not only impressive, but meaningful. Heroes who show them what it truly means to be human. And in discovering those heroes, children slowly begin to imagine the kind of hero they themselves might one day become.

Story from the classroom

Discussions with children

In Montessori schools Andílek we usually discuss these topics with children in the lectures of ethics or civic education.

- *we share with children stories of real heroes (paralympic athletes etc.),*
- *try to get to know youtubers and influencers in real life (e.g who films stories and talks about healthy eating…*
- *we have media workshops regularly - the students try to make their own podcast or other activities - transferring the online world into reality - realizing what is behind the work of influencers.*

Montessori School Andilek, Czech Republic

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The Need for Communication and Belonging: from classroom community to digital connection

In a Montessori elementary classroom, children naturally seek connection. They collaborate on projects, share discoveries, and negotiate roles during group work, building social skills and a sense of belonging. Community meetings/agenda or gratitude circles provide a safe space for children to express thoughts, reflect on experiences, and practice empathy, laying the groundwork for respectful communication. The guide models dialogue, helps resolve conflicts, and encourages every voice to be heard, reinforcing that communication is about understanding and being understood.

These same principles extend into the digital world. In Montessori classrooms, digital communication is used purposefully, often for collaboration with peers in other schools or for sharing research projects. Children write emails, create shared documents, and produce digital presentations, applying the clarity, tone, and etiquette they have practiced in person. For example, in a joint project on local ecosystems with students from another country, children must plan tasks, exchange data, and present findings online. Here, digital tools are not a substitute for face-to-face interaction but a bridge that allows children to extend their collaborative skills globally.

Digital interactions in Montessori classrooms often revolve around purposeful, real-world tasks that require careful communication. When planning a field trip or “going out” experience, children might draft emails to museums, nature centers, or local experts to arrange visits, ask questions, or request materials. They learn to clearly express their intentions, coordinate logistics, and collaborate as a team to ensure every detail is considered. Through these activities, children practice digital etiquette—writing polite, concise messages, checking for clarity, and responding thoughtfully to replies. These experiences mirror the classroom’s culture of empathy and responsibility, showing children that digital communication is not only a tool for sharing information,

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but also a way to build relationships, solve problems, and participate actively in a wider community.

By integrating these experiences, Montessori education helps children navigate the digital world responsibly. Communication becomes a tool for connection, collaboration, and community, allowing children to transfer the values of empathy, clarity, and respect from the classroom to any digital environment. In this way, digital competence is not just about using technology, but about maintaining the social and moral foundations essential for meaningful interactions.

Story from the classroom

Building community in a Zoom room

When Covid suddenly closed the doors of Montessori akademija, it felt as if the heartbeat of the school had paused. The classrooms, usually filled with soft conversation, children working with materials, and the hum of purposeful work, fell silent. Yet within just a few days, that same heartbeat found a new rhythm—this time inside a digital Zoom room.

We didn't simply "move lessons online." Instead, we worked to rebuild the warmth, connection, and community that our Montessori children knew so well. The first Zoom sessions were filled with shy waves and curious smiles. But soon, the digital room became a new kind of classroom—one where children could still see their classmates, share their work, and feel that they belonged. Each morning began with the same familiar rituals. We sang our greeting songs, sometimes a little off-beat due to internet lag, and danced together in our living rooms. Birthdays were celebrated with cheerful singing. Some sessions became drawing workshops, where children proudly held their pictures up to the camera. Other days were for games—memory challenges, scavenger hunts around the house, or simple guessing games that filled the screen with laughter. We also had quiet moments. Conversations where children talked about their feelings, their pets, or what they cooked with their families. These were the moments that reminded us that the Zoom room was not just a space for learning—it was a space for being together.

The digital materials, stories, presentations, and lessons helped keep Montessori work alive. But it was the togetherness—the shared songs, the silly dances, the whispered "I miss you"—that truly carried the community through. What began as a temporary solution became a

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testament to resilience: even when the school building was closed, the Montessori spirit remained open, connected, and alive. In those months, Montessori akademija didn't just teach children online. We held them together.

Montessori Akademija, Lithuania

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Cosmic Education - giving the whole

At the heart of Montessori elementary education lies Cosmic Education, a framework designed to give children a sense of the interconnectedness of all knowledge. Rather than teaching subjects in isolation, Cosmic Education weaves together history, biology, geography, science, mathematics, geometry, language, and the arts, allowing children to see how each discipline contributes to a greater understanding of the world. Through this approach, children begin to recognize their place in the universe and understand that every action, discovery, or creation is part of a larger story. This vision fosters critical thinking, curiosity, and the ability to make connections across multiple domains of knowledge.

In practice, Cosmic Education is visible throughout the Montessori classroom. When students study the solar system, they don't merely memorize planets; they explore planetary movements through models, calculate distances using mathematics, read historical accounts of astronomers, and reflect on the ethical implications of space exploration. Similarly, lessons on agriculture might integrate biology, climate science, human history, and artistic expression, allowing children to appreciate the full spectrum of cause and effect. Every subject becomes part of a coherent narrative, helping children understand not just facts, but relationships and purpose.

The Role of Digital Technology in Cosmic Education

In today's world, digital technology can play a supportive role in Cosmic Education, but its use must be intentional and purposeful. As Greg MacDonald points out, the question is never simply "Should we use technology?" but rather: Does this digital tool serve a specific educational purpose? Does it provide an experience that cannot be achieved otherwise? Does it enhance a group project, research task, or creative endeavor in a meaningful way? When approached thoughtfully, digital tools can function like Montessori materials—carefully curated, purposeful, and developmentally appropriate.

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In Montessori classrooms, digital resources are often integrated to complement hands-on exploration. For example, upper elementary students might use a digital microscope to observe pond life they collected during a field trip, or they might create a multimedia presentation on the water cycle, combining their own observations, photographs, and research from reputable online sources. Teachers guide children in using these tools safely and collaboratively, emphasizing ethical digital practices, respect for privacy, and responsible communication. Just as children learn to handle delicate scientific equipment with care, they are taught to navigate digital devices with mindfulness.

Digital tools should be treated as classroom materials, just like Montessori materials, and should fully conform to Montessori philosophy and practice. Their use should be intentional, meaningful, and developmentally appropriate. Key considerations for integrating digital tools in a Montessori classroom:

- Carefully constructed presentations – Digital tools should support Cosmic Education by providing well-curated, purposeful content.
- Considerations of safety – Children must be guided in using technology responsibly and safely.
- Access and usage moderated by purpose and classroom community – Digital devices should be used collaboratively and with a clear purpose.
- Access and usage increase parallel to age – Younger children should engage in hands-on learning first, with digital tools introduced gradually as they develop the capacity to use them thoughtfully.

Meeting the needs of the second plane child

Children in the second plane of development, ages 6–12, are naturally driven by curiosity, a desire for intellectual exploration, and a need for meaningful social interaction. The digital world can meet many of these needs: it offers immediate access to information, opportunities for collaboration with peers across distances, and tools for creative expression and problem-solving.

However, Montessori educators remain vigilant: digital engagement should not replace real-world experiences but rather enhance them. A lesson on ecosystems might begin

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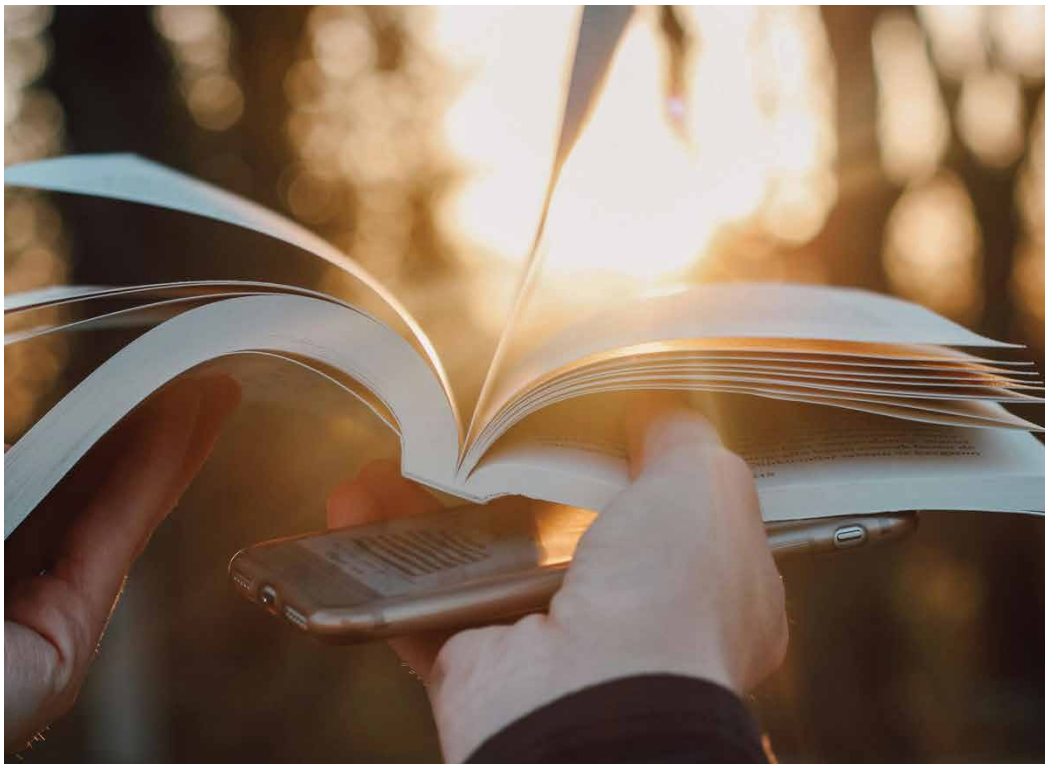
with a walk in the forest, followed by digital research on endangered species, culminating in a student-created infographic. This sequence maintains the integrity of hands-on learning while introducing technology as a thoughtful extension, not a substitute.

Balancing the whole with digital competence

Cosmic Education gives children a vision of “the whole”—an integrated understanding of the world and their place in it. Digital tools, when used intentionally, can support this vision, providing access to information, collaborative platforms, and creative outlets. In the Montessori elementary classroom, teachers guide children to see technology as a tool for discovery, research, and communication, not as a replacement for curiosity or real-life engagement.

By combining Cosmic Education with responsible digital use, children develop both a broad perspective on knowledge and the competence to interact thoughtfully with the digital world. They learn to navigate information critically, collaborate respectfully, and apply digital resources ethically. In this way, Cosmic Education and technology together prepare children not only for academic success, but for a life of exploration, responsibility, and meaningful participation in an interconnected world.



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The digital world - a new learning environment

"The children of today will make all the discoveries of tomorrow. All the discoveries of mankind will be known to them and they will improve what has been done and make fresh discoveries...The future generation must not only know how to do what we can teach them, they must be able to go a step further."

Maria Montessori, The 1946 London Lectures

In a Montessori elementary classroom, learning happens everywhere. Traditionally, we talk about two main environments: the indoor classroom, carefully prepared for self-directed exploration, and the outdoor world, where children take their learning into real-life experiences. But today, there is another space that cannot be ignored: the digital environment. It is not separate—it is woven into the way children engage with knowledge, people, and the world around them.

Inside the classroom, children move freely between shelves, choosing materials that capture their interest. One child may trace the contours of a map while another measures ingredients for a baking project. The indoor environment is full of possibilities for hands-on learning, concentration, and social interaction. It is here that children practice independence, refine skills, and explore ideas at their own pace. Each material, each lesson, is intentionally placed to guide them toward understanding, while allowing room for curiosity and personal discovery.

Outside, learning extends into the world beyond the walls. Montessori called these experiences “going out,” emphasizing that they are more than simple field trips. They are student-driven explorations, requiring children to plan, research, and act responsibly. Imagine a group preparing to visit a local museum. They begin by finding the contact information online, sending a carefully written email requesting a guided tour, checking the bus timetable on an app, and calculating the travel time to arrive punctually. They might call the museum to clarify details or follow navigation tools to ensure they reach the destination. These experiences teach organization, communication, and problem-solving, while fostering a sense of autonomy and confidence.

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In today's world, these experiences often blend with digital tools, creating what we might call a third learning environment: the digital space. It is an extension of both indoor and outdoor learning, offering children new ways to explore, connect, and create. Just as they learn to use Montessori materials thoughtfully, children can be guided to navigate websites, evaluate online information, or communicate digitally with institutions and peers. For instance, a student preparing a report on local wildlife may research species online, verify facts with books from the classroom library, and then write an email to a wildlife expert for clarification. In doing so, the child applies critical thinking, ethical reasoning, and communication skills—all within a purposeful digital context.

Digital tools can also support collaboration and reflection. Children learn to compose respectful emails, participate in group discussions across schools, or share project updates with peers in another country. They explore digital maps to plan excursions, schedule meetings, and document their findings. At every step, the teacher acts as a guide, observing, suggesting, and fostering conversations about ethical behavior, accuracy, and responsible digital citizenship.

Rather than seeing screens as distractions, the Montessori approach encourages us to view the digital world as a natural extension of learning. It complements hands-on exploration, outdoor experiences, and classroom collaboration. When thoughtfully integrated, digital experiences allow children to apply their curiosity, independence, and problem-solving skills in new ways, preparing them to navigate a complex and interconnected world.

In the Montessori elementary classroom, learning is never confined to a single place. Indoor, outdoor, and digital environments each offer unique opportunities for growth. By guiding children to use all three spaces intentionally, we equip them not just to consume information, but to explore, create, and contribute meaningfully—whether in the classroom, the community, or the digital universe.

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Story from the classroom

Meaningful research transferred to digital form

In our classroom children worked on the project about Ancient Civilizations. For weeks the children had been collecting facts, sketching artefacts, and reading stories about the daily life, inventions, and beliefs of these long-ago peoples. But now came the moment they loved: transforming all their discoveries into a digital presentation. PowerPoint became their tool of choice—simple enough for them to use independently, yet powerful in helping them give shape to their ideas.

Children dragged images onto slides, added titles, experimented with layouts, and proudly inserted their own drawings. The digital format helped them organise their thoughts: one slide for geography, another for achievements, another for cultural traditions. And as they worked, they talked—explaining to one another why a particular invention mattered or how a certain ruler changed history.

By the end of the week, the classroom felt like a small museum. Each child stood ready to guide their classmates through Babylonian gardens, Maya pyramids, or the golden age of Greece—this time not just by reading from a paper, but by showing their learning in living colour. With digital slides as their stage, their understanding became clearer, their communication more confident, and their excitement contagious. In this way, digital competence grew naturally—woven into meaningful research, respectful collaboration, and the joy of sharing knowledge.

Jolly HOME SCHOOL, Slovakia

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Story from a school: Stewardship of the World: embracing sustainable practices with technology in school life

At our school, Andilek, in Czech Republic, we see digitalization not only as a path to modern and efficient management, but also as a tool that supports sustainable and responsible operation across the entire institution. Technology is a natural part of our everyday school life and leadership, allowing us to respond more flexibly to the needs of the times, our team, and our parents. We are building a digitally competent school culture that saves time, energy, and resources.

Digitizing administrative and operational processes is one of our top priorities. All administrative tasks – staff attendance, employment contracts, internal requests, training registrations, or vacation tracking – are handled electronically. For communication, planning, and task management, we use tools like **Slack** and **Basecamp**, which allow for transparent task distribution, deadline tracking, and collaborative work. **Shared calendars** and online planning help ensure that everyone stays informed about what's happening. For quick, informal communication, we also use **WhatsApp**.

We organize **hybrid staff meetings** – some colleagues attend in person, others join online. This flexible approach enables participation even for those who cannot be physically present. **Meeting notes** are generated using **AI features in Zoom** or by transcribing **voice recordings** with offline applications that ensure **GDPR compliance**. This system allows us to archive key decisions while avoiding unnecessary administrative overload.

In communication with parents, we use **electronic forms** that save time and streamline data processing – from absences to event registrations. All digital documentation is managed using secure tools without the need for physical printing. We also handle communication with authorities primarily through **electronic means**, such as **data mailboxes** and encrypted data transfers.

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A major step towards simplifying our administration was the implementation of **electronic signatures**, enabling documents to be signed securely and conveniently from a distance. This saves both time and paper, while also significantly accelerating document flow without compromising data security.

One of the most visible examples of our digital approach is the **3D virtual tour of our school**, available on our website. It allows parents and prospective families to explore the school environment from the comfort of their homes – including classrooms, indoor spaces, and the school garden. Transparency, openness, and access to information are fundamental values for us.

A key digital support tool in our day-to-day work is **ChatGPT**, which we use to help prepare texts, internal documents, emails, and other materials. While it saves time and sparks inspiration, we always combine its use with a high level of **critical thinking** and **subject-matter expertise** to ensure the outputs are reliable, relevant, and usable.

We support our team and foster meaningful collaboration in several ways:

- New colleagues receive a **digital onboarding package** that includes all essential documents, guides, and overviews in one place for a smooth and quick orientation.
- We maintain a well-organized **electronic library** and shared folders via **Google Drive**, where staff can access teaching materials, methodologies, meeting notes, and workshop recordings. Each department, classroom, and project has its dedicated space.
- We regularly use **digital surveys** for both staff and parents – collecting feedback, event evaluations, mood tracking, and anonymous suggestions. This helps us identify needs in time and prevent potential issues.
- **Online appointment scheduling** allows parents to easily book consultations, admissions meetings, or classroom observations, reducing back-and-forth communication and streamlining organization.

In this way, technology helps us build a school that is **efficient, sustainable, and deeply human**. We minimize unnecessary administration, reduce paper use and

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environmental impact, and provide clear, secure, and timely access to key information for both staff and families.

Our vision is a school that is not only modern and effective, but also mindful, open, and responsible. We do not view digital tools as the goal, but as a **means to fulfill our mission** – to create an environment where people can work, decide, communicate, and grow together. And it is often the invisible but essential digital infrastructure that makes this possible.

Essential guidelines for developing digital competence at home: a Montessori-aligned approach

Developing digital competence in children begins long before they interact with devices. In a Montessori-aligned home, the focus is on building knowledge, skills, attitudes, and experience that allow children to navigate the digital world safely, responsibly, and creatively. Parents play a key role as guides, modeling ethical behavior, setting boundaries, and creating opportunities for purposeful digital engagement.

1. Start with critical thinking and information literacy

Before children search online, help them practice evaluating information in everyday life. Encourage them to ask: Where does this information come from? Is it consistent with other sources? At home, this could involve reading together, comparing books, discussing articles, or analyzing simple videos. These early habits mirror Montessori classroom exercises and create a foundation for navigating online content responsibly.

2. Encourage purposeful communication and collaboration

Children need to develop respectful and responsible communication skills. Support them in writing emails, creating shared documents, or participating in online discussions with peers, teachers, or institutions like museums. Emphasize clarity, politeness, and awareness of how words affect others. Encourage them to

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acknowledge contributions, listen actively, and collaborate thoughtfully—just as they do in Montessori group activities.

3. Promote responsible digital creation

Digital tools can be powerful means for expression and problem-solving. At home, guide children to use apps or programs to create stories, presentations, or multimedia projects. Teach them about copyright, intellectual property, and ethical sharing. Explain that creating digital content is like any other creative work—it requires care, responsibility, and respect for others' contributions.

4. Emphasize safety and privacy

Children must understand the importance of privacy and online safety. Discuss what is safe to share, when to ask for permission, and how to protect personal information. Reinforce the idea that their digital footprint is lasting and that they should always think about the potential consequences of online actions. Montessori philosophy supports these lessons by connecting ethical awareness and respect for others from the classroom to the digital environment.

5. Develop problem-solving skills

Encourage children to approach digital tools with curiosity and confidence, exploring, experimenting, and troubleshooting when things do not go as planned. This Montessori principle of learning from trial and error helps children become flexible and creative in solving digital challenges, fostering independence and resilience.

6. Set clear boundaries and balance screen time

Montessori classrooms introduce screens selectively and purposefully, typically in upper elementary years, for research and creative projects. At home, establish clear guidelines on screen use, emphasizing balance with hands-on activities, outdoor play, and social interaction. Discuss the risks of excessive screen time, misinformation, and online distractions, helping children understand both benefits and limitations of technology.

7. Reflect and discuss ethical digital behavior

Create opportunities for conversations about online interactions. Ask: How would this message feel if it were about you? How do we respond to teasing or misinformation online? How can technology be used to help others or solve problems? These

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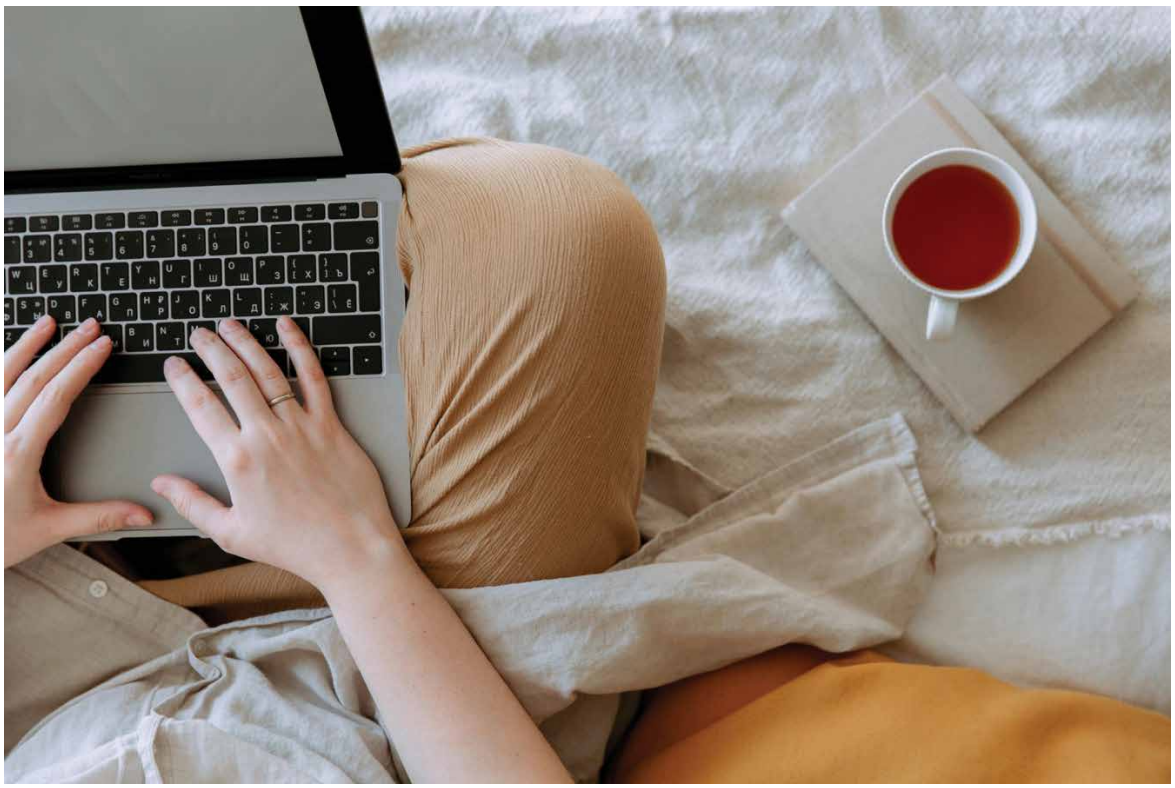
discussions connect ethical reasoning, empathy, and moral development—core elements of Montessori education—to real-life digital experiences.

8. Use technology for meaningful projects

Support children in applying digital skills to purposeful work. Examples include collaborative school projects, community initiatives, or creative storytelling. This approach aligns with Montessori philosophy, treating technology as a tool for exploration, learning, and contribution—not passive consumption.

By guiding children with these principles, parents help them develop digital competence that mirrors Montessori values: independence, critical thinking, ethical awareness, and purposeful engagement. Digital tools become a complement to real-world experiences, supporting growth without replacing the hands-on, experiential learning that forms the foundation of Montessori education.



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How digital competence is visible in Montessori Elementary classroom?	
Essential knowledge	
How digital technologies can support communication, creativity and innovation	Children use email or child-safe collaborative platforms to contact museums, plan “going out” experiences, or communicate with students in partner schools abroad. They can create digital presentations, videos, or newsletters about projects on science, history, or environmental topics. Teachers guide them in using digital tools to express ideas, not just consume content. They use digital tools for research.
The opportunities, limitations, effects and risks associated with digital technologies	Students discuss the benefits of technology for research and collaboration, the limitations of online information (bias, misinformation), and potential negative effects of overuse. Role-play and storytelling exercises illustrate cyberbullying, privacy concerns, and the consequences of sharing personal data.
The general principles, mechanisms and logic underlying evolving digital technologies	Students engage in coding simple algorithms that strengthen logic, implying an understanding of the underlying principles of programming.
The basic use and function of different devices, software and networks	Students are introduced to tablets, computers, cameras, and collaborative apps. They practice basic functions: typing, searching for information, saving documents, and using digital maps for “going out” activities. Teachers show how the internet works as a global network connecting people and information.
Validity, reliability and impact of information and data made available by digital means	Children compare multiple sources for a topic, noting the author, publication date, format, and purpose. They analyze content for bias or accuracy using classroom discussions and exercises like comparing textbooks, websites, and videos. Various classroom build early skills in verifying and cross-referencing information, critical thinking.
Legal and ethical principles involved in engaging with digital technologies	Students learn about copyright, intellectual property, and the importance of asking permission before sharing others’ work through various Grace and Courtesy activities. Teachers facilitate conversations about ethical digital behavior, respectful communication online, and digital footprints. Students practice responsible sharing and correction of mistakes.
Core skills	
Access, use, filter, process and evaluate digital content	Children use search engines, school-approved databases, or curated websites to gather information. They extract relevant information, compare multiple

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	sources, and reflect on accuracy, reliability, and purpose.
Create, program and share digital content	Students design presentations, digital stories, school newsletters, videos, or simple apps for class projects. They learn to credit sources, paraphrase, and respect intellectual property.
Manage and protect information, content, data and digital identities	Children discuss privacy and public sharing, practice safe passwords, and reflect on what information is appropriate to share. Lessons about journals and online work help them understand boundaries and digital identity.
Use digital tools to produce, present and understand complex information	Students use apps (like Canva) or slideshows to synthesize research, create charts, or communicate findings in collaborative projects. They can combine visuals, text, and multimedia for clear presentation.
Recognize and effectively engage with software and devices, artificial intelligence and robots	Depending on situation children explore coding robots, digital microscopes, and interactive simulations. They experiment with AI tools for research or creative purposes, always guided to question results critically.
Use digital technology to support their creativity and to collaborate with others towards personal, social or commercial goals	Children work in pairs or groups on digital projects such as school newsletters, environmental campaigns, or presentations for community circles. Digital tools can be used for collaboration with international Montessori schools online.
Attitudes (students value)	
Applying a reflective and critical thinking approach	Students discuss the reliability of information, the effects of their digital actions, and possible alternative solutions. They reflect on mistakes and evaluate their digital creations.
Being curious, open-minded and forward looking	Children explore new apps, tools, and research methods. They ask questions, compare sources, and experiment with technology in the context of real-world projects.
Using an ethical, safe and responsible approach to the use of digital content and tools	Respect for privacy, safe sharing, responsible communication online, and awareness of consequences guide all digital activities. Teachers discuss online teasing, data security, and respectful engagement.
Engaging in communities and networks for cultural, social and/or professional purposes	Students collaborate with peers in other schools or online communities, participate in joint projects, or communicate with experts. Digital interactions extend their sense of belonging and social responsibility beyond the classroom.

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8 CHAPTER

CITIZENSHIP COMPETENCE

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Citizenship Competence

Citizenship competence is the ability to act as responsible citizens and to fully participate in civic and social life, based on understanding of social, economic, legal and political concepts and structures, as well as global developments and sustainability.

Knowledge

Citizenship competence is based on knowledge of basic concepts and phenomena relating to individuals, groups, work organisations, society, economy and culture. This involves an understanding of the European common values, as expressed in Article 2 of the Treaty on European Union and the Charter of Fundamental Rights of the European Union. It includes knowledge of contemporary events, as well as a critical understanding of the main developments in national, European and world history. In addition, it includes an awareness of the aims, values and policies of social and political movements, as well as of sustainable systems, in particular climate and demographic change at the global level and their underlying causes. Knowledge of European integration as well as an awareness of diversity and cultural identities in Europe and the world is essential. This includes an understanding of the multi-cultural and socioeconomic dimensions of European societies, and how national cultural identity contributes to the European identity.

Skills

Skills for citizenship competence relate to the ability to engage effectively with others in common or public interest, including the sustainable development of society. This involves critical thinking and integrated problem solving skills, as well as skills to develop arguments and constructive participation in community activities, as well as in decision-making at all levels, from local and national to the European and international level. This also involves the ability to access, have a critical understanding of, and interact with both traditional and new forms of media and understand the role and functions of media in democratic societies.

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Attitudes

Skills for citizenship competence relate to the ability to engage effectively with others in common or public interest, including the sustainable development of society. This involves critical thinking and integrated problem solving skills, as well as skills to develop arguments and constructive participation in community activities, as well as in decision-making at all levels, from local and national to the European and international level. This also involves the ability to access, have a critical understanding of, and interact with both traditional and new forms of media and understand the role and functions of media in democratic societies.

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Strengthening the Role of Active Citizenship in Montessori Elementary Schools

In the 21st century, education is not solely about the transmission of knowledge but about empowering learners to become thoughtful, engaged, and responsible citizens of the world. Active citizenship—understood as the ability and willingness to participate in civic and community life based on democratic values, critical thinking, and global awareness—is a key competence for the future. As Maria Montessori profoundly stated: *"We must revise our concepts, our attitudes, our educational systems if we wish to help man to become more cultured, more disciplined, more open to abstract ideas; if our aim is indeed to help him grow to become a citizen of the world."* (Citizen of the World, p. 79)

This chapter explores how the Montessori elementary environment—characterized by its emphasis on autonomy, responsibility, and social cohesion—can play a pivotal role in fostering the European key competence of Citizenship. Anchored in the EU framework for lifelong learning, Citizenship competence is defined through three interrelated components: Knowledge, Skills, and Attitudes. These three pillars form the foundation for the development of democratic principles, ethical judgment, and civic engagement in young learners.

Montessori education offers a unique approach to embedding these pillars deeply and naturally into the child's educational journey. Children in Montessori classrooms experience democracy not as an abstract concept but as a lived reality. From collaborative decision-making and respectful dialogue to active involvement in community life, children are equipped with tools for real participation and are invited to co-create the culture of their classroom and school.

This chapter is divided into four main parts:

- principles of democracy and active citizenship embedded in Montessori education

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- a conceptual definition of Citizenship competence through Knowledge, Skills, and Attitudes, enriched with real-life examples from Montessori School Andílek
- a practical view of how each of these dimensions is developed in Montessori elementary classrooms also with real-life examples from Montessori School Andílek
- a concluding section with recommendations for educators and school leaders seeking to further strengthen active citizenship in their educational settings

The Montessori pedagogy, with its global and humanistic vision, aligns powerfully with the goals of democratic education. In a world facing ecological, social, and political challenges, fostering a generation of young people who not only understand their rights and responsibilities but are also willing and able to act upon them is not just a pedagogical aim—it is a societal imperative.

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Principles of Democracy and Active Citizenship Embedded in Montessori Education

"*How can we speak of Democracy or Freedom when from the very beginning of life we mould the child to undergo tyranny, to obey a dictator? How can we expect democracy when we have reared slaves? Real freedom begins at the beginning of life, not at the adult stage. … how can we expect them, when school-life is finished, to accept and use the rights of freedom?*"

Maria Montessori - Education for a New World p.72

Education can be a method of overcoming obstacles to democracy by working directly with children, parents and the wider community to foster the values of democracy in everyday life as well as through the curriculum. In particular, the philosophy of Montessori education is rooted in the idea that the child is a citizen, whose contribution is widely undervalued and misunderstood. It is the child that becomes the adult that influences and is influenced by society. The foundation that we lay early in life and then build upon to cultivate characteristics that support democratic culture, institutions and society is an important facet of Montessori education and philosophy.

Montessori believed that education encompassed the development of the self as well an understanding of the self in a collective. In each stage of development the child is an independent agent of their learning and development while simultaneously an active, essential member of a collective of individuals. The concept of social cohesion is foundational to the effective implementation of Montessori pedagogy and must be established in order for children to thrive in a Montessori environment. It can be interpreted as a social contract, an understanding of "how we are together" that relies on the functional independence of each individual. Montessori understood that by trusting in and enriching the child's intellect, character and by believing in their potential we could create a new society. A democratic approach is embedded in this philosophy and vital to its authentic implementation.

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The European Union definition of democracy refers to three key concepts. Maria Montessori's writings clearly support democratic principles not only in theory but through the actions of the teachers and children.

Equality

"The mind of the child takes elements from the environment and incarnates them into his being. This does not happen through heredity, but is the consequence of a creative potential within the child…The creative potential of the child is not the prerogative of one race or another; it is inherent in the nature of the child. " Maria Montessori - The San Remo Lectures, p. 28

Representation

"It is he who forges the normality of intelligence; from him depend strength of character, physical health, bodily beauty, and the unity of the personality that are to be found, or not to be found, in the adult. Is he then not to be considered as a citizen, as a contributor to universal welfare?" Maria Montessori - Citizen of the World, p. 66

Montessori advocated for an international political party for the child whom she saw as a citizen worthy of rights and capable of contribution.

Participation

"The child who has never learned to act alone, to direct his own actions, to govern his own will, grows into an adult who is easily led and must always lean upon others. "

Maria Montessori - Citizen of the World, p. 118

In practice, participation is manifested through the development of independent thought and action. Independence is the achievement and agency is one of the tools that facilitates its development. The Oxford Dictionary of Media and Communication defines the sociological use of agency as, "A central thematic opposition with structure representing the scope for human freedom of action—versus the ways in which actions may be determined by social structures."

Montessori education fosters positive developmental outcomes by leveraging an in-depth understanding of child development, its unique stages and characteristics. Maria Montessori did not develop presentations or materials that directly mention or focus on active citizenship. But democratic values are woven through the way that teachers in training learn to work with children. The nature of the relationships developed in

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Montessori environments and classrooms reflect a predisposition to democratic attitudes held by teachers and internalised by children. Through their activity and interaction in intentionally challenging and stimulating environments children build what Montessori referred to as a society by cohesion. This provides the child with real experiences that develop their character, values and understanding of their role in the community. As the child grows the creation and use of the social contract that supports the proper functioning of their collective becomes the responsibility of the individual and the group. The influence of the adult evolves with each successive plane of development although they remain role models and guides as the child develops an understanding of their role in maintaining a well-functioning community.

It can be said that in an authentic, fully implemented Montessori environment democratic culture thrives naturally because of the way children interact with the learning environment, their teachers, peers and in the way they conduct themselves. The teacher believes children possess certain rights and are deserving of respect. The teacher's training is explicit in stating the child has the freedom of choice, of movement, of thought and expression. The adult prepares an environment where children are active citizens in a micro-society where freedoms and their respective limitations are the responsibility of everyone. This begins from the earliest stages of the child experience in a Montessori setting, the infant community. A combination of understanding what is developmentally appropriate and possible for a child while considering how to support their journey in becoming a responsible, engaged and thoughtful adult citizen is a thread that runs through the Montessori approach. At each developmental stage the child is able to act on the materials and classroom and to benefit and grow from their own actions and experiences. They also interact with other children and adults to gain experience in making choices that benefit themselves, the collective and the environment itself. The adult is there as a positive role model, a guide to the environment and support to the child as an individual and to the group as a community. To achieve this, Montessori teachers use a number of techniques, strategies and methods that allow the foundation for democratic culture to be built naturally. This unfolding relies on the special and reciprocal relationship between the trained teacher, the prepared environment and the child.

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Building the Foundations of Citizenship

Citizenship is not a skill one simply acquires overnight—it is rooted in deep and nuanced knowledge about society, history, and the individual's place within both. In the context of Montessori elementary education, the acquisition of such knowledge is not merely academic; it is experiential, integrated, and personally meaningful. Children are encouraged to explore the interconnectedness of the world around them, building an understanding that citizenship is both a right and a responsibility.

Understanding Society and Human Culture

In Montessori classrooms, children are introduced to the concepts of community, cooperation, and the roles individuals play in the broader social fabric. Through stories, discussions, and interdisciplinary lessons, students learn how societies are formed, how they function, and what values and systems support their cohesion.

Children study different cultures, customs, belief systems, and historical periods—especially those relating to human innovation, cooperation, and conflict. This comparative and non-judgmental lens helps them appreciate both diversity and commonality, fostering an identity as European citizens with a global outlook.

Key Learning Goals:

- Understanding of political, social, and economic structures.
- Familiarity with national and international institutions, including the EU and the UN.
- Awareness of civic rights and responsibilities.
- Exposure to the concept of human solidarity and interdependence across time.

Historical Context and European Values

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The Montessori “Great Lessons” provide the historical and philosophical scaffolding for civic understanding. These stories introduce children to the origins of the universe, life on Earth, human beings, language, and mathematics. They provide not only scientific and cultural knowledge but also an ethical context for exploring cooperation, innovation, and justice.

In line with EU guidance, children are introduced to:

- European values as outlined in the Charter of Fundamental Rights.
- Milestones in national and European history.
- The impact of colonisation, war, migration, and globalization.
- The development of democracy and civil society.

Global Awareness and Sustainability

Through thematic work, children explore the global impact of human actions. They learn about climate change, economic inequalities, population dynamics, and sustainability. Geography, biology, and environmental studies are connected to discussions on human responsibility and the shared challenges of our planet.

Activities Supporting Global Awareness:

- UN Sustainable Development Goals projects.
- Cultural festivals and international celebrations.
- Research-based presentations on global challenges.
- Cooperation with Amnesty International or similar NGOs.

I Share with You a Story: How Our Classroom Studies World Conflicts

In one project, upper elementary students studied the war in Ukraine. They looked not only at the conflict itself but also its historical and geopolitical context. They interviewed community members, including Ukrainian peers and their families, created maps, read news in multiple languages, and wrote reports reflecting on justice, freedom, and displacement. The result? A deep, personal understanding of the costs of war, the importance of democracy, and empathy for others—rooted not in fear but in curiosity and knowledge.

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Practicing Active Citizenship through Experience

While knowledge lays the intellectual foundation of citizenship, it is through skills that children begin to enact their role in society. In Montessori education, skills are not taught in isolation. They emerge organically through meaningful experiences, self-directed learning, and social collaboration. The elementary years are especially rich in opportunities to develop the tools needed for real-world participation, from communication and cooperation to critical thinking and civic engagement.

Communication and Dialogue

One of the central skills of an active citizen is the ability to express oneself clearly and listen to others with respect. In the Montessori elementary classroom, these skills are cultivated daily through structured and unstructured dialogue. Children are encouraged to share their thoughts, lead discussions, and resolve disagreements with empathy and logic.

Practices That Build Communication Skills:

- Daily group meetings and “community circles.”
- Moderated discussions on ethical or social topics.
- Training in nonviolent communication and active listening.
- Writing reflections, letters, and persuasive texts (e.g. letters to local leaders, peers, or fictional characters).

Critical Thinking and Media Literacy

In an age of information overload, distinguishing fact from opinion is a core democratic skill. Montessori guides encourage students to question, research, and evaluate sources. Children are taught how to verify information, recognize bias, and form well-reasoned arguments.

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This is achieved through:

- Project-based learning and independent research.
- Guided debates and fair discussion protocols.
- Media workshops led by journalists and educators.
- Mock trials, ethical dilemmas, and decision-making games.

I Share with You a Story: Detecting Fake News

As part of a media literacy workshop, our students explored how social media spreads false information. With the support of a parent who is a professional journalist, they analyzed headlines, fact-checked articles, and discussed why critical thinking is essential in a democratic society. The session sparked a spontaneous project: students created a classroom newsletter with editorial standards and peer-review practices.

Collaboration and Participation

The ability to collaborate for the common good is central to citizenship. In Montessori elementary environments, mixed-age classrooms foster cooperation across developmental stages. Children plan projects together, manage class resources, and make decisions collectively. Through these practices, they gain real experience in negotiation, compromise, and leadership.

Examples from the practice:

- Students plan excursions, create a budget, and coordinate logistics.
- Elementary parliament enables children to propose changes to classroom life.
- Responsibility rotations (e.g., librarian, gardener, conflict resolver).
- Cooperative storytelling, research projects, and science experiments.

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Problem Solving and Civic Action

Montessori children are active problem solvers, not passive recipients of knowledge. Whether addressing a broken material or a community disagreement, they are invited to assess the situation, propose solutions, and implement them. These early exercises mirror the problem-solving involved in civic life.

Civic Action Projects:

- Organizing environmental clean-ups or recycling systems.
- Running charity drives for local causes or disaster relief.
- Participating in democratic simulations like elections or referenda.
- Writing petitions or organizing school-wide votes on relevant issues.

Digital and Global Engagement

In line with the EU's Key Competences for Lifelong Learning, Montessori students are also guided to engage constructively in digital and international contexts. In upper elementary, children begin using digital tools for research, communication, and presentations, always under the guidance of ethical and respectful behavior.

Digital Citizenship Practices:

- Online collaboration on shared documents or presentations.
- Lessons on data protection, consent, and respectful online communication.
- Virtual exchanges with Montessori schools abroad.
- Use of digital maps, videos, and simulations to understand global systems.

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Cultivating Democratic Dispositions and Values

While knowledge provides the content and skills offer the means, it is attitude that shapes how a citizen shows up in the world. In Montessori elementary education, attitudes are not taught didactically. Instead, they emerge from lived experience, community practice, and role modeling. Respect, empathy, responsibility, curiosity, and integrity form the fabric of everyday interactions in the classroom and beyond.

These attitudes are not only nurtured through direct experiences but are embedded in the structure of the Montessori environment, the role of the adult, and the children's continuous interaction with the prepared space and their peers.

Respect for Self, Others and the Environment

Respect is foundational to all other attitudes. In Montessori, it is practiced through grace and courtesy lessons, conflict resolution techniques, and shared responsibilities. Respect is both expected and demonstrated — by children, guides, assistants, and parents alike.

Practices That Support Respect:

- Class agreements co-created and upheld by children.
- Peace areas for calming down or resolving disagreements.
- Observing turn-taking, voice levels, and respectful feedback.
- Stewardship of the classroom and school grounds.

I Share with You a Story: The Broken Vase

One morning, a glass vase with flowers was found broken on the shelf. Instead of seeking punishment, the children gathered to calmly discuss what happened. A younger student admitted they accidentally knocked it over and didn't know what to do. The class

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collectively reflected on how to prevent similar incidents. They proposed a new “flower helper” role to check for water spills and reviewed how to safely carry glass. The child who broke the vase offered to bring a new one from home. Accountability was matched with empathy.

Curiosity and Wonder

Citizenship begins with asking questions — about the world, society, and one’s place in it. The Montessori elementary child, with their developing reasoning mind, is hungry to understand the “why” behind everything. Guides nurture this attitude not by giving answers, but by encouraging exploration, hypothesis, and experimentation.

Ways Curiosity Is Nurtured:

- Great Lessons (e.g. the story of the universe) ignite awe and inquiry.
- Encouragement to “go out” and research real-world phenomena.
- Access to rich materials, books, maps, and charts to support discovery.
- Time and freedom to pursue personal interests deeply and meaningfully.

Responsibility and Agency

Being a citizen means understanding that your actions affect others and that you have a role in shaping the community. From managing daily classroom jobs to proposing improvements to the class routine, Montessori students internalize a deep sense of agency and accountability.

Concrete Examples of Responsibility in Practice:

- Managing the class budget and expenses.
- Organizing cultural events or school-wide initiatives.
- Preparing for trips, writing permission slips, and leading debriefs.
- Weekly community meetings to discuss what went well and what could improve.

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I Share with You a Story: Student-Led Sustainability

After a discussion on climate change, several students proposed a composting system for the classroom's food scraps. They researched what materials could be composted, how to build a compost bin, and how to rotate it. They presented their plan to the guide, wrote to the school director for permission, and involved parents to gather materials. The initiative became a long-term project managed entirely by students — demonstrating initiative, responsibility, and follow-through.

Empathy and Solidarity

Democratic societies thrive when individuals can see the world through the eyes of others. In a mixed-age Montessori classroom, empathy is built naturally: older children assist younger peers, newcomers are welcomed, and social dynamics are openly discussed.

Montessori guides create space for:

- Sharing personal stories and listening without judgment.
- Visiting elderly neighbors or helping with community needs.
- Reflecting on conflicts with empathy for each person's point of view.
- Literature and storytelling that highlights multiple perspectives and cultures.

I Share with you Story: Visiting the Senior House

A group of children prepared poems and handmade gifts before visiting a nearby senior residence. During their visit, they read aloud, listened to stories, and even helped serve tea. One child reflected afterward, "I thought they might be sad or quiet, but they were full of life and had so many things to share. It made me think how every person has a story."

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Integrity and Moral Development

In the second plane of development (ages 6–12), children become particularly attuned to fairness, justice, and consistency. They want to know: “What is right?” and “Why?” Montessori elementary guides seize this moment by presenting ethical dilemmas, engaging in historical discussion, and creating space for real-life application of values.

Moral Exploration Happens Through:

- Group discussions on ethical questions (e.g., fairness, rights, harm).
- Role plays, debates, and community decisions.
- Reading biographies of changemakers, activists, and innovators.
- School parliament simulations and real elections.

I Share with You a Story: The Fair Discussion Rules

During a unit on ethics, students co-created the rules of “fair discussion.” These included listening without interrupting, speaking about ideas — not people — and rotating the role of moderator. Later, when debating whether animals should be used in circuses, even the quietest students felt safe to voice their views. The culture of listening and respecting disagreement proved powerful in building democratic habits of heart.

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How Citizenship Competence Manifests in the Elementary Classroom – An Integrated View

Citizenship competence in a Montessori elementary environment is not taught in isolation. Instead, it is woven into the daily life of the classroom — through curriculum, materials, relationships, routines, and real-life experiences. This section explores how the triad of **Knowledge, Skills, and Attitudes** functions synergistically in the elementary classroom, offering children real agency and engagement with democratic life.

The Montessori Elementary Environment as a Micro-Society

Maria Montessori often spoke of the classroom as a "society by cohesion," where the child learns how to be both independent and interdependent. The elementary environment is prepared to mirror the structure of a community — with shared responsibilities, mutual agreements, conflict resolution strategies, and freedom within limits.

Key Features That Make the Classroom a Democratic Community:

- **Mixed-age grouping (6–9, 9–12)** that allows peer teaching, leadership rotation, and natural modeling.
- **Freedom of movement and choice**, teaching personal responsibility and time management.
- **Community meetings** to voice concerns, celebrate successes, and reflect.
- **Responsibility for environment**, including cleaning, organizing, and maintaining shared spaces.

> *"The environment must be rich in motives which lend interest to activity and invite the child to conduct his own experiences."*
>
> *Maria Montessori "Absorbent Mind"*

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Integrating Knowledge: Democratic Themes in the Curriculum

The Montessori curriculum presents children with **cosmic education** — a big picture of how humans, nature, and the universe are interconnected. This holistic framework includes history, geography, biology, mathematics, and language, all converging to form a deep sense of belonging and responsibility in the world.

Examples:

- **The Great Lessons** introduce the story of the universe, life, humans, and civilization — sparking inquiry about cooperation, innovation, and justice.
- **History and civics** explore systems of government, rights and responsibilities, revolutions, and social movements.
- **Geography and ecology** reveal global interdependence and the importance of sustainability.

Children learn:

- Why elections exist.
- How different societies structure power.
- How conflict and peace shape history.
- What climate change means for the planet and their role in responding.

Practicing Skills: Leadership, Dialogue and Action

Children are not merely passive recipients of civic knowledge. They engage in real-world decision-making and practice democratic skills daily:

- **Voting on class matters** and selecting representatives for student parliament.
- **Leading class meetings** and moderating debates.
- **Creating and enforcing community agreements.**
- **Organizing events, trips, and projects** (e.g. composting initiative, art exhibition on climate justice).

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- **Critical media literacy activities** (e.g. analyzing sources, identifying disinformation).

These experiences nurture:

- Self-confidence in public speaking.
- Negotiation and collaboration skills.
- Reflective thinking and empathy.
- The habit of engaging in civil discourse — even around disagreement.

"We must concern ourselves with the study of man not only as an individual, but also as a member of the community within the context of his relationships and his social function."

Maria Montessori - The San Remo Lectures, p. 12

Living the Attitudes: Everyday Citizenship

Everyday interactions — choosing a respectful tone, waiting a turn, resolving conflict peacefully — are where attitudes of citizenship are cultivated.

In addition:

- Children serve as **ambassadors** during school visits.
- They **welcome new students** and introduce routines and materials.
- **Service learning** (e.g. writing to Amnesty International, planting trees) builds habits of contribution.
- **Reflections** and **journaling** support inner development and ethical reasoning.

I Share with You a Story: Parliament in Practice

After a semester of preparing campaign platforms, holding speeches, and managing a fair election, the student parliament was formed. It became an active body with weekly meetings and responsibilities such as budget discussions, proposal approvals for new projects, and peer mediation of disputes. What was initially a simulation became a real experience of democratic function — owned and shaped by the children themselves.

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Recommendations for Implementation and Growth

While the Montessori method inherently supports the development of democratic culture, implementing citizenship competence intentionally and consistently requires conscious effort, strategic planning, and professional reflection. This part offers concrete recommendations, tools, and sources of inspiration for strengthening citizenship education in elementary environments.

From Philosophy to Practice: Key Implementation Strategies

To bring citizenship competence from philosophical intention into daily school life, we recommend:

1.1. Clarify Vision and Language

- Develop a **shared vocabulary** across the school community to describe and discuss active citizenship.
- Define what *citizenship* looks like at each developmental stage — from Children's House to Adolescent Program.
- Communicate this vision to **parents**, staff, and children consistently.

1.2. Embed Citizenship in the Environment

- Make **student work visible** in classrooms and hallways (e.g. projects on SDGs, class agreements, debate rules).
- Include **reflection areas** for individual and group contemplation.
- Display **symbols of justice, peace, and diversity** that invite conversation.

1.3. Align Curriculum With Civic Intent

- Use the **Great Lessons** as anchors for discussions about cooperation, responsibility, human progress.
- Create **project-based learning units** that explore real-world civic topics.

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- Connect **mathematics, science, and language** learning to issues of community, justice, and the environment.

1.4. Foster Authentic Student Leadership

- Establish **student parliaments**, **project teams**, and **committees**.
- Involve students in real **decision-making** (budget, schedules, agreements).
- Support **peer mediation** and conflict resolution initiatives.

1.5. Include Parents and the Wider Community

- Offer **parent workshops** on democracy, communication, and responsibility.
- Use **open classroom hours** and **community service events** to model participation.
- Engage local leaders, activists, and experts in **student-led interviews and panels**.

Professional Development for Educators

Developing citizenship competence in students requires adults who themselves think and act democratically. Schools must support staff in deepening their civic engagement, reflection, and facilitation skills.

The teachers can focus on the following areas

Area	**Topics & Resources**
Democratic Facilitation	Constructive dialogue, community circles, consensus building
Civic Education Foundations	EU values, human rights, environmental literacy
Media Literacy	Understanding misinformation, teaching source evaluation
Emotional Intelligence	RULER method, non-violent communication, self-regulation

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Inspirational Programs:

- Educateurs sans Frontières (AMI)
- Reading and Writing for Critical Thinking (University of Manchester)
- Forum for Experiential Education or in Czech Fórum pro prožitkové vzdělávání
- National democratic education networks (e.g. Czech NPI civic education workshops)
- Referring to EU materials directly
- Courses for teachers (example from University of Manchester - online)

Assessment and Reflection Tools

To support continuous growth and alignment with the values of citizenship competence, we recommend:

For Teachers:

- **Reflection forms** after key lessons: What civic values were supported? What skills were practiced?
- **Team discussions** on examples of civic growth and challenges in student behavior.
- **Rubrics** for assessing student collaboration, ethical thinking, and communication.

For Students:

- **Self-assessment journals** with prompts such as:
    - What choices did I make today that helped my community?
    - How did I express my opinion respectfully?
    - When did I solve a problem peacefully?
- **Portfolios** that include work related to justice, responsibility, and cooperation.

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Case Study: Citizenship Development Through School Projects - in Montessori Schools Andílek

Project	Competence Focus	Description
Mock Presidential Elections	Skills & Attitudes	Students created campaigns, held debates, voted, and reflected on fairness and integrity.
Letters to Amnesty International	Knowledge & Attitudes	Children researched human rights cases and wrote persuasive letters as active citizens.
School Parliament	All Dimensions	Real democratic structure with elected representatives making decisions and proposals.
Trip to Vienna	Skills	Students planned, budgeted, coordinated logistics, represented the school — gaining responsibility, confidence, and intercultural awareness.

Long-term Development Goals for the School

To cultivate citizenship competence as a lasting part of the school culture, we recommend:

- **Annual Citizenship Theme** across classrooms (e.g. Freedom & Responsibility, Justice, Community).
- **Democracy Week** – cross-classroom projects, visitors, exhibitions, discussions.
- **Expanded mentorship model** – older students guide younger in modeling democratic practices.
- **Documentation and Storytelling** – collect stories of democratic growth to share with wider community.

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Inspiration from the Montessori community

What and how do other schools and organizations think about democratic culture? Depending on the culture and society the inspiration is from we might find some ideas might be uncomfortable or incompatible, but more than likely we can adapt or take inspiration from these ideas.

International inspiration about democracy culture in education

- A Montessori Education for Active Citizenship
- Digital citizenship

Leadership & Parent Participation

The Montessori School of Tokyo - creating a school community, working with parents

The Montessori Institute of San Diego - course on inclusive Montessori education

Socioeconomicpolitics - research article on Montessori education and civic education

Educateurs Sans Frontières - Montessori and Human Rights

Norwegian Montessori Society - Implementing the UN Sustainable Development Goals in Montessori Settings - Montessori 2030

Global Schools Programme - Debate on SDGs with students from a Montessori organisation in Manila

Conferences and or events with students participation and teacher chaperones

- Conference Montessori model OSN
- Montessori Europe Adolescent Forum

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Reflection: Montessori Education as a Seedbed for Democracy

The strength of Montessori education lies in its trust in the child as capable, intelligent, and moral. By embedding civic education in the life of the classroom — not as a separate subject but as a lived experience — we prepare children not only to *understand* democracy, but to *practice* it.

"We must see the individual in his place in society because no individual can develop without the influence of society."

Maria Montessori - The Child, Society and the World p. 77

In Montessori elementary schools, education for active citizenship is not an afterthought. It is the *foundation* upon which knowledge, agency, and ethics are built — preparing children not only for their future roles in society, but for their active, meaningful participation in the world *right now*.

Recommended Montessori texts for citizenship and democracy education

Citizen of the World

Education for a new World

Education and Peace

The 1946 London Lectures

The Child, Society and the World

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How citizenship is visible in Montessori Elementary classroom?	
Essential knowledge	
The concepts of democracy, justice and equality	Children co-create class agreements, engage in community circles, discuss fairness during ethical debates, and practice democratic processes such as classroom voting and student parliament.
Citizenship and civil rights, including the Charter of Fundamental Rights of the European Union and international declarations	Through cosmic education, children study human rights, explore real stories, collaborate with organizations such as Amnesty International, and reflect on civic rights and responsibilities.
Contemporary events	Students work with current events through research projects (e.g., the war in Ukraine), analyze news, compare sources, and create their own classroom newspaper.
The main events and trends in national, European and world history	The Great Lessons and follow-up work introduce children to major historical developments, such as civilizations, migration, democracy, revolutions, and global change.
Aims, values and policies of social and political movements	Children study ecological, peace-oriented, and civic movements, explore stories of activists, and create their own campaigns or awareness projects.
European integration	Work with maps, timelines, and European institutions helps students understand the history and purpose of the EU, as well as the meaning of shared European values.
Climate and demographic change at global level and their underlying causes	Projects on sustainability, composting, recycling, ecosystems, and population dynamics, including links to the UN Sustainable Development Goals.
Diversity and cultural identities in Europe, and the world	Cultural celebrations, family presentations, literature from diverse cultures, and international collaborations help students appreciate both diversity and common humanity.
The European common values (Article 2 of the Treaty on the European Union and the Charter of Fundamental Rights of the European Union)	Values such as dignity, freedom, equality, solidarity, and justice are practiced daily through respectful communication, conflict resolution, and community collaboration.
Multi-cultural and sociology-economic dimensions of European societies, and how	Activities exploring migration, “global village” simulations, comparisons of lifestyles, and real stories from families with varied backgrounds.

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national cultural identity contribute to the European identity	
Core skills	
Engage effectively with others in the public domain	Community meetings, student parliament, moderated discussions, public presentations, and peer mediation.
Display solidarity and show interest in solving problems affecting the local and wider community	Classroom responsibilities, environmental clean-ups, charity projects, supporting younger peers, and human-rights letters.
Reflect critically and creatively on community activities	Reflection journals, class debriefs, self-assessment after projects, and group discussions about impact.
Participate constructively in community activities	Organizing trips, leading projects, coordinating cultural events, and creating systems that support the classroom community.
Participate in decision-making at local, national and European levels, in particular through voting	Classroom voting, student parliament elections, simulations of elections or referenda, and debates.
Access, have a critical understanding of, and interact with both traditional and new forms of media	Media literacy workshops, fake-news analysis, creating a classroom newsletter, and evaluating multiple sources.
Attitudes (students value)	
Human rights and equality	Daily practice of respect, fair conflict resolution, children's rights discussions, and inclusive interactions.
Being responsible and constructive	Classroom roles, stewardship of materials, self-directed project management, and contributing to group work.
Belonging to one's own locality, country, the EU and Europe and the world	Cultural projects, map work, international exchanges, and discussions about global citizenship.
Democratic principles	Fair-discussion rules, voting processes, group agreements, and valuing every voice in the community.
Participating in democratic decision-making	Regular voting, student parliament meetings, proposing changes, and co-creating community guidelines.
Social and cultural diversity	Mixed-age work, cultural celebrations, heterogeneous group work, and storytelling from different traditions.
Gender equality and social cohesion	Addressing stereotypes, equal opportunities for all roles, and collaborative problem-solving.

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Sustainable development	Composting, gardening, recycling, climate-focused projects, and environmental responsibility.
The values and privacy of others	Respectful communication, protecting personal space and belongings, and learning about boundaries.
Intercultural communication	Family stories, cultural presentations, multilingual interactions, and global projects.
Being responsible for the environment	Daily care for indoor and outdoor spaces, eco-projects, nature work, and sustainability initiatives.

(This text was written by Zuzana Kašparová and Hana Chramostová, with the use of the text "Strengthening Democratic Culture at Andílek Montessori School" written by Kavita Doodnauth for the project "Development of Democratic Culture in Andílek Montessori Schools")

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9 CHAPTER

ENTREPRENEURSHIP COMPETENCE

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Entrepreneurship competence

Entrepreneurship competence refers to the capacity to act upon opportunities and ideas, and to transform them into values for others. It is founded upon creativity, critical thinking and problem solving, taking initiative and perseverance and the ability to work collaboratively in order to plan and manage projects that are of cultural, social or financial value.

Knowledge

Entrepreneurship competence requires knowing that there are different contexts and opportunities for turning ideas into action in personal, social and professional activities, and an understanding of how these arise. Individuals should know and understand approaches to planning and management of projects, which include both processes and resources. They should have an understanding of economics and the social and economic opportunities and challenges facing an employer, organization or society. They should also be aware of ethical principles and challenges of sustainable development and have self-awareness of their own strengths and weaknesses.

Skills

Entrepreneurial skills are founded on creativity which includes imagination, strategic thinking and problem-solving, and critical and constructive reflection within evolving creative processes and innovation. They include the ability to work both as an individual and collaboratively in teams, to mobilize resources (people and things) and to sustain activity. This includes the ability to make financial decisions relating to cost and value. The ability to effectively communicate and negotiate with others, and to cope with uncertainty, ambiguity and risk as part of making informed decisions is essential.

Attitudes

An entrepreneurial attitude is characterized by a sense of initiative and agency, pro-activity, being forward-looking, courage and perseverance in achieving objectives. It includes a desire to motivate others and value their ideas, empathy and taking care of people and the world, and accepting responsibility taking ethical approaches throughout the process.

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Entrepreneurship matters: looking through Montessori lens

The European Union names entrepreneurship as one of the eight key competences for lifelong learning-and for good reason. In a world that changes faster than ever before, young people need to be adaptable, curious, and courageous. They need to make thoughtful decisions, navigate uncertainty, and transform ideas into meaningful action. Entrepreneurship competence gives them these tools, helping them shape lives of purpose and contribute to the wellbeing of their communities.

Maria Montessori herself was, in many ways, a global social entrepreneur. She sparked a worldwide movement led largely by women-teachers, school founders, and parents-who continue to create educational environments that balance mission with sustainability. Even our classrooms reflect this entrepreneurial spirit: Montessori teachers lead micro-communities with care and vision, school founders innovate to meet evolving needs, and Montessori children often grow into adults who shape new paths in technology, the arts, social justice, and beyond.

In Montessori, entrepreneurship is always tied to purpose. Success is not measured only in profit but in the positive impact one creates-socially, culturally, and environmentally. This mirrors the EU's understanding of entrepreneurship as a form of value creation that serves humanity.

At its heart, entrepreneurship includes the ability to:

- Turn ideas into action-to notice opportunities, imagine possibilities, and take initiative to bring them to life.
- Create value for others-whether through economic contributions or through social, cultural, or community-based work.

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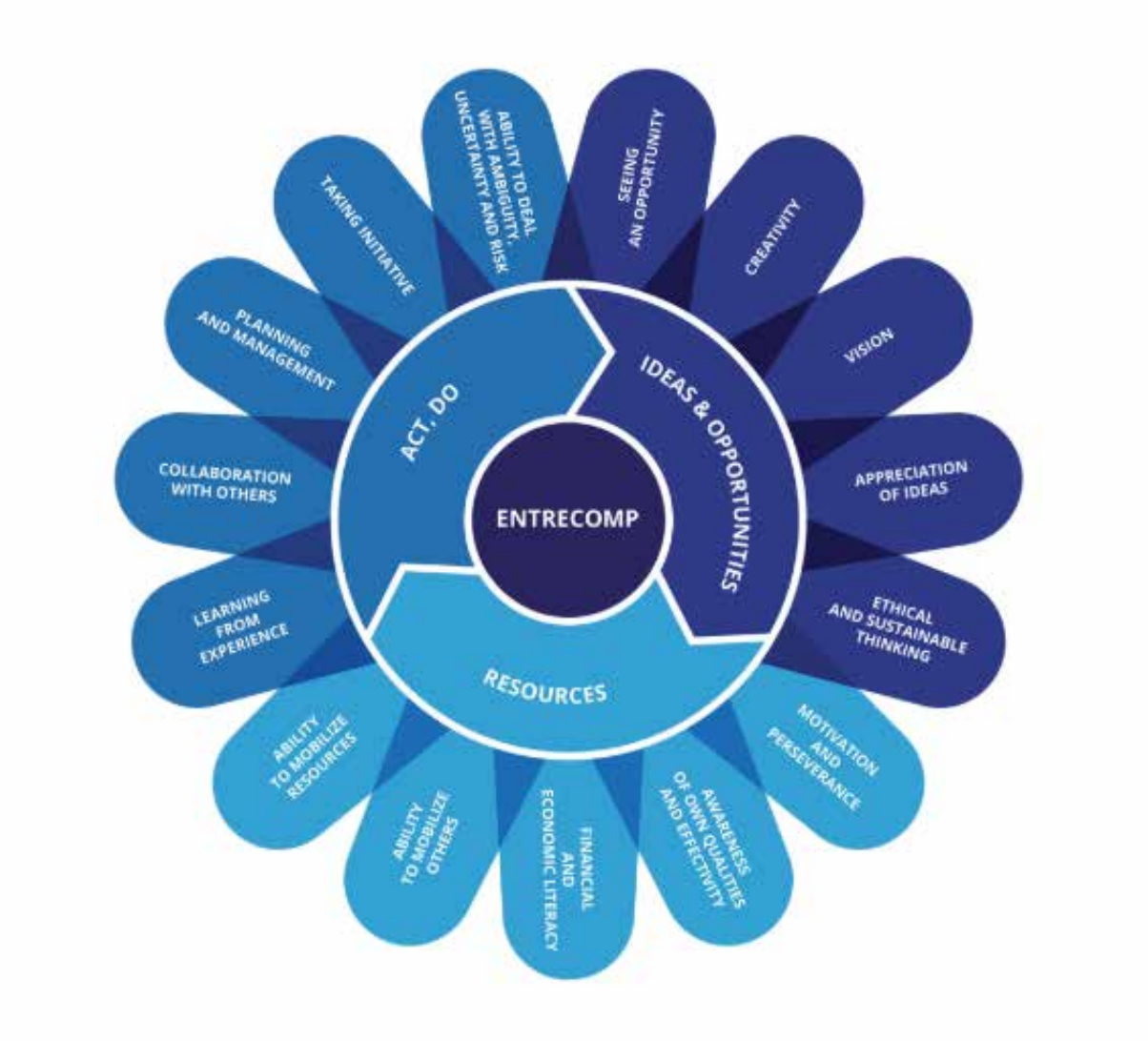
- Use creativity, innovation, and resilience-to solve problems, take responsible risks, and learn from experience.

These abilities align naturally with the Montessori approach. Our environments invite children to explore their interests, initiate projects, collaborate, and take responsibility for their work. In doing so, they practice the very capacities that will one day help them lead, create, and contribute meaningfully to the world.



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The purposeful entrepreneurial spirit in prepared environment

Entrepreneurship in Montessori does not begin with business plans or profit models. It begins with a child entering a space designed for purposeful action. The prepared environment is our quiet partner in cultivating the entrepreneurial spirit. It communicates trust, responsibility, beauty, and possibility. It invites the child to act, to make decisions, to solve problems, to collaborate, and to transform ideas into reality. In this way, the foundation of entrepreneurship is not "taught"—it is lived, every day.

Freedom Within Limits Creates Initiative

In the Montessori Elementary classroom, freedom is not an empty concept. It is structured, intentional, and deeply empowering. The environment offers clear limits—only one of each material, a shared schedule, community ground rules. But within these boundaries, children are free to choose their work, plan their time, and follow their curiosity.

This freedom-with-responsibility is the birthplace of initiative. Children learn to identify opportunities in their environment: *What calls to me today? What do I need to accomplish my idea? Which resources are available, and which must I find elsewhere?* These choices mimic real entrepreneurial thinking. The child becomes the driver of their own learning, developing the capacity to act—not because an adult told them to, but because something inside them moves them toward purposeful work.

Choice teaches them to manage their own energy. Limits teach them to do so responsibly. This balance prepares them for the real world, where autonomy and responsibility must coexist.

Control of Error Builds Resilience and Problem-Solving

In Montessori, adults do not correct every mistake; materials do. The environment is filled with tools that reveal their own inaccuracies: a miscalculated area that doesn't match the geometric control card, a science experiment that fails because water wasn't measured properly, a timeline that doesn't align when the dates are off.

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This built-in feedback system forms a quiet contract with the child: *trust yourself enough to check your work, and trust yourself enough to try again.*

Entrepreneurs understand that failure is information. Montessori children absorb this truth early. When a mistake is detected by the material rather than an adult, shame dissipates. Curiosity takes its place. A new question emerges: *What happened here? How can I fix it? What will I try next?*

This is resilience in action—what modern innovation culture calls "failing fast and learning faster." Over time, children internalize standards of excellence. They move from external correction to internal evaluation: *Is it true? Is it always true? Why does it work this way?*

In the Elementary years, control of error becomes social as well. Children check each other's work, offer suggestions, discuss reasoning, and provide peer feedback. They learn to defend their ideas and revise them collaboratively—exactly the practices that fuel team-based creativity in adult life.

Real Work Creates Value for the Community

Montessori classrooms blur the line between "school tasks" and real contributions. Children prepare shared snacks, care for plants and animals, organize materials, welcome visitors, produce class newspapers, run library systems, and create small services that support classroom life. Their actions have immediate, visible impact.

This is not symbolic work; it is genuine value creation.

A child who buys fruit for the week after researching prices, organizing a budget, and coordinating time with a classmate embodies core entrepreneurial abilities: planning, decision-making, collaboration, responsibility, service orientation.

A child who waters plants daily understands that community wellbeing depends on follow-through.

A group who organizes a "Going Out" trip must write emails, call institutions, arrange transportation, and make social decisions that mirror real-world problem-solving.

Through these experiences, children learn the essence of entrepreneurship: **My effort can make life better for others.** This understanding grows a sense of purpose and civic responsibility that no abstract lesson could provide.

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Order, Beauty, and Precision Inspire Excellence

A Montessori environment is intentionally beautiful. Materials rest on shelves in logical sequence. Tools are complete, well-maintained, and aesthetically pleasing. There is exactly one of each—never more. This scarcity by design teaches children to plan, negotiate, and collaborate:
If someone is using the material I need, how can we work together? Who can I learn from while I wait? How can we share responsibility?

Order becomes a silent guide. Beauty becomes a motivator. Precision becomes a habit of mind.

The Elementary environment deepens this experience. Materials offer only "keys"—not full answers. A chemistry card may provide ingredients but require the child to gather beakers, scales, and heat sources. A geography experiment may give instructions but rely on the child to find the equipment and organize space. This "incomplete" design is intentional. It teaches entrepreneurial resourcefulness: the ability to mobilize resources, plan steps, and bring an idea to completion.

When the environment communicates that excellence is possible—and expected—children rise to meet it. They learn to care for materials, to use resources wisely, and to produce high-quality work. These habits become the basis for thoughtful, responsible entrepreneurship in the future.

The dual environment: classroom and the world

In Montessori, the environment does not end at the classroom door. The world itself becomes material for learning. "Going Out" experiences extend the child's reach beyond familiar walls: visiting museums, interviewing experts, exploring historical sites, navigating public transportation, or contacting community organizations.

These experiences demand real initiative. Children must plan, communicate, assess risks, manage money, and act with independence. The world becomes a training ground for responsible agency. They learn that opportunities exist everywhere—and that they are capable of stepping into them.

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This bridge between protected environment and real-world action is one of Montessori's greatest entrepreneurial gifts. It builds confidence, adaptability, and the courage to explore the unknown.

The environment as the first entrepreneurial teacher

Entrepreneurial adults often describe childhood moments when they felt capable, trusted, or inspired. In Montessori, these moments are not accidents—they are the natural result of an environment designed for purposeful action.

It supports children in discovering that they are active agents in their community and in the world. And with this understanding, they grow into adults who can imagine, create, collaborate, and bring meaningful ideas to life.

The Montessori prepared environment is not just a place to learn. It is the child's first entrepreneurial ecosystem— a place where purpose, creativity, and initiative take root.

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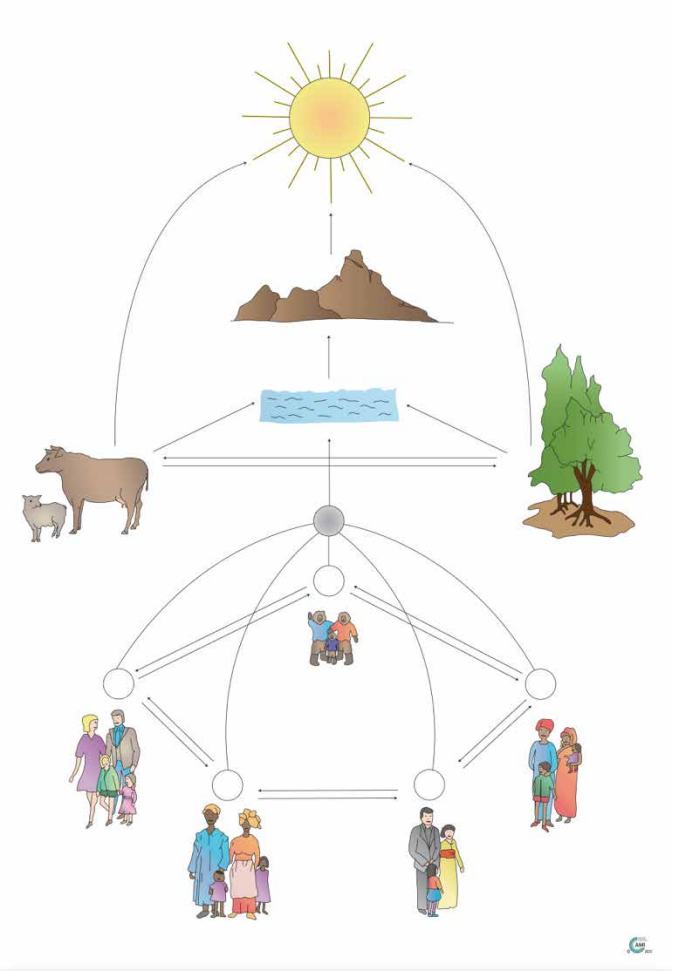
Building understanding how humans create value

In Montessori Elementary, entrepreneurship begins long before a child ever hears the word. It grows from a deep understanding of how humans meet their needs, work together, and create value for one another. This understanding is not taught through abstract definitions—it is built slowly, through stories, materials, and real observations of the world. When children see how people collaborate to bring even the simplest item into their hands, they begin to grasp the essence of an economic system: humans working together to create value that no one could produce alone.

We begin with the **Interdependencies Chart**, a key Montessori lesson that gently opens the child's eyes to the web of relationships that sustains human life. It shows that farmers need tools made by metalworkers, and that metalworkers rely on miners, and miners on engineers, and engineers on teachers who once taught them to read and think. This chart becomes a living map of human collaboration. It is often the child's first glimpse into the idea that value is not created in isolation—economic systems are networks of people supporting one another.



From there, the exploration becomes more concrete. Children are invited to follow the journey of a single product. *Where does our bread come from?* What seems like a simple question becomes a rich investigation: wheat fields, millers, bakers, drivers, shopkeepers, designers of

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packaging, producers of tools, manufacturers of trucks. As children trace this chain, they gain a new respect for the invisible hands that make everyday life possible. They start to see that value is created not just by one person, but by many people working together with intention, skill, and effort.

Another doorway into economic understanding comes through storytelling. Montessori guides often share the tale of **"barter to the use of money,"** helping children imagine early humans trading goods—firewood for grain, cloth for tools—and the challenges that arose when needs didn't match. Through stories of ancient shells, metal coins, paper notes, and today's digital transactions, children step into the long human effort to simplify exchange. They see how money evolved to solve real problems: storing value, facilitating trade, helping societies grow. And they also realize that money today is often invisible—an idea, a number on a screen—raising new questions about what value truly is.

These lessons spark natural conversations. *What is money? Who decides what things are worth? Why do some things cost more than others? Can value be created without money?* Children begin to see that value can also come from time, attention, and care. Helping a classmate, preparing a snack, or contributing to a community project becomes part of their economic understanding. The idea emerges that we can "exchange" not only goods, but service—an hour of help, an act of kindness, the willingness to contribute.

Through these stories, explorations, and discussions, Montessori children develop a grounded, human-centered view of the economy. They understand that behind every object is a network of real people; that exchange began as a way to meet community needs; that money is a tool humans invented and continue to reinvent; and that value can be measured in many ways—not only in currency, but also in contribution.

This foundation prepares them to engage with the world as future creators and contributors. They learn that entrepreneurship is not just about business; it is about understanding how humans work together to bring ideas to life and improve one another's lives.

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Practicing initiative, planning, and collaboration

Entrepreneurial skills do not appear suddenly in adolescence or adulthood—they are built slowly, through countless small experiences in daily life. In the Montessori Elementary environment, these skills are woven into the fabric of everyday routines. Children learn to take initiative, plan their actions, and collaborate with others not because they are instructed to do so, but because the environment requires it, invites it, and rewards it.

In the Children's House, materials are presented neatly on trays, complete and ready for use. But in Elementary, the world expands—and so does responsibility. When a child decides to conduct a geography experiment, for example, nothing is pre-assembled. They must look around the room, identify the tools they need, locate the materials, and gather them independently: basins, sand, water pitchers, measuring tools, cloths, maps. This simple act of preparation becomes a lesson in **resource mobilization**—a cornerstone of entrepreneurial action.

This pattern repeats everywhere: science investigations, geometry constructions, art projects, research work. Each task invites the child to survey their environment, anticipate needs, collect supplies, and maintain their workflow. Over time, they develop an intuitive sense of planning: *What do I need? Where will I find it? Who might help me? How can I keep my project going?* These early habits form the roots of project management and strategic thinking.

Equally essential is the skill of **working with others**. In Montessori Elementary, almost all lessons are given in small groups. The adult introduces a key idea, and then children are encouraged to continue the work together—co-researchers exploring the same universe of knowledge. The classroom itself supports this social learning, with large communal tables where ideas, tools, and responsibilities are naturally shared.

Through these collaborative experiences, children learn to communicate, negotiate, listen, and compromise. They discover that others can be resources, partners, and co-

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creators. They experience the joy—and sometimes the challenge—of building something together. These early experiences with teamwork lay the foundation for the cooperative mindset needed in future entrepreneurial ventures.

Perhaps one of the richest opportunities for practicing initiative and planning comes through **Going Out**, a fundamental component of the Elementary experience. Here, children step beyond the classroom to explore museums, interview specialists, gather natural materials, or visit local shops. But these excursions do not simply happen. The children must initiate the process, determine their purpose, and organize every detail.

Consider something as everyday as stocking the classroom snack table with fresh fruits and vegetables. The children first survey the class to learn what items are preferred. They then compare prices online or in local shops, calculate budgets, plan the timing of the trip, and arrange transportation. After purchasing the food, they take responsibility for ensuring it is eaten and not wasted. Through this process, they grapple with real questions: *How much should we buy? Is this price reasonable? How do we divide our time? What if something goes wrong?*

These experiences cultivate decision-making, financial literacy, time management, and responsibility—all within a meaningful, real-world context.

Through daily rituals, group work, and excursions into the community, Montessori Elementary children practice the essential skills that support entrepreneurship. They learn that ideas require action, that planning supports success, and that collaboration makes work richer and more joyful. By the time they reach adolescence, they carry within them not only the knowledge of how to initiate and organize, but the confidence that they can.

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Story from the classroom

Entrepreneurs in St. Casimir Fair

In the days leading up to the St. Casimir Fair, the Elementary students eagerly prepared their handmade products—bracelets, bookmarks, mini–story books, artwork, and even bags of warm popcorn. But the fair wasn't just about crafting; it became a full entrepreneurship project woven into their classroom work.

Each student or small team rented a table from the school, learning right away that running a business comes with costs. Practical planning followed: those selling popcorn checked if they needed electricity, others counted how many bags or labels were required, and everyone discussed fair pricing based on time, effort, and materials.

On the day of the fair, the school transformed into a cheerful marketplace. Children welcomed visitors, used their own marketing ideas—signs, posters, special offers—and practiced giving change. Some products sold quickly, others needed extra advertising, and the students observed it all with curiosity.

After the fair, they gathered to evaluate their experience: Which marketing strategies worked? What was their most successful product? What would they change next time?

Finally, they faced the most meaningful decision—what to do with their earnings. In recent years, the students chose to donate their profits to Ukrainian children, a generous choice that showed how entrepreneurship can also nurture empathy and social responsibility.

Through this simple school fair, the children gained real-life experience in planning, budgeting, creativity, reflection, and giving.

Montessori Akademija, Lithuania

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Cultivating Purpose, Empathy, and Responsible Agency

Cultivating entrepreneurial competence in the Montessori Elementary classroom is inseparable from nurturing a deep sense of purpose, empathy, and responsible agency. These qualities grow not through abstract instruction, but through daily lived experience within a community where each individual matters and each action has meaning.

In Montessori Elementary, the Great Stories lay the foundation for this moral and emotional development. They invite children to contemplate the laws that govern the universe, the long history of life's adaptation, and the unique human gifts of imagination, intellect, and love. From the beginning, children are encouraged to see themselves as part of a much larger narrative—one in which their choices and contributions shape both their community and the wider world. This understanding of belonging naturally awakens empathy and a sense of responsibility.

Purpose and care are practiced through concrete, meaningful activities. Children tend the classroom environment, polish shelves, dust materials, garden, and care for animals—small acts that communicate that the world depends on their attention. This sense of stewardship expands beyond the classroom when children engage with the local community, such as visiting elderly care homes, offering their time, presence, and kindness. These experiences strengthen the understanding that their actions can bring comfort, joy, and connection to others.

Responsible agency also takes shape through the Elementary child's growing initiative. Children choose their work, plan projects, and begin their day by deciding how they will spend their time. Their motivation comes not from external demands but from an emerging inner drive. This habit of initiative becomes the seed of entrepreneurial spirit—the ability to see possibilities, take action, and follow through with intention.

Group work plays a significant role in forming purpose-driven collaboration. The 6–12 child is naturally social, and the classroom becomes a living space where teams form, leaders emerge, and roles are negotiated. This mirrors early human cooperation—

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collaboration was essential for survival and remains essential for innovation. Through this “social laboratory,” children practice teamwork, communication, and conflict resolution, developing the interpersonal competence needed to create value with others.

During the sensitive period for morality, children are actively shaping their ethical framework. Conflicts, class meetings, and restorative practices help them learn fairness, accountability, and empathy. These real-life experiences teach an essential entrepreneurial truth: creating value means serving others responsibly and acting with integrity. Ethics becomes not a lesson delivered by the adult but a lived experience shaped through community problem-solving.

Daily community contributions further deepen their sense of agency. Classroom jobs, helping a peer, planning a Going Out, or preparing something for the collective good transforms children from passive participants into active contributors. They begin to see that their actions have impact—that they can improve their community, respond to needs, and make life better for others. This mindset forms the foundation of social entrepreneurship, where the goal is not personal gain but meaningful contribution.

Virtues such as courage, perseverance, integrity, responsibility, and collaboration are not just discussed but practiced. Children use them to navigate academic challenges, social dynamics, and long-term projects. These virtues support the development of character strengths essential for entrepreneurship: resilience in the face of setbacks, courage to explore new ideas, honesty in decision-making, and responsibility for the consequences of one’s actions.

Cosmic Education strengthens this further by revealing humanity’s long arc of contribution. Children come to understand that human beings have shaped the world through curiosity, creativity, and cooperative labor. The idea of “supernature”—the human-made world—helps them recognize that they too are creators with the power to influence the future. This understanding nurtures a profound sense of purpose: their work matters, and their choices have significance in the unfolding story of humanity.

In contrast to the Children’s House, where work supports personal development, Elementary children work to serve the community. They maintain shared spaces so others can function well, create research materials for their peers, or teach a new skill

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to someone who needs help. This shift marks an important developmental step: the desire to contribute to the well-being of the group. They experience that their efforts create real value—an essential insight for future entrepreneurial thinking.

Finally, Going Out and long-term projects connect classroom learning with authentic societal needs. When children test local water quality, organize a donation initiative, or grow and share food, they learn that knowledge gains meaning when applied to real life. They discover that ideas must be transformed into action to create impact—an understanding at the heart of responsible entrepreneurship.

Even the rotating system of classroom jobs, where small groups become “experts” and pass their knowledge to the next team, reinforces responsibility, continuity, and shared ownership. Children learn that sustaining order, beauty, and functionality requires ongoing, organized effort. They begin to value service as meaningful work and understand that long-term success depends on stewardship, not just initial enthusiasm.

Through these experiences, Montessori Elementary students cultivate not only empathy and purpose but also the responsible agency that empowers them to become future innovators, collaborators, and compassionate leaders who create value for their communities and the world.

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Into the action: nurturing balance and self-direction

Developing entrepreneurial competence in the Montessori Elementary classroom requires more than practicing initiative or understanding economic interdependence. It also involves cultivating the capacity for self-direction, strategic planning, and balanced decision-making—skills firmly aligned with EU entrepreneurship competencies such as self-awareness, mobilizing resources, planning and management, and learning through experience. Montessori pedagogy supports these competencies not through external control, but through structures that help children understand themselves, manage their responsibilities, and take ownership of their learning journey.

The Work Diary: Self-Management and Accountability

One key tool is the work diary. Children record what they have worked on, note the balance across different subjects, and observe patterns in their interests, strengths, and efforts. This is not a system of teacher surveillance—it is a practice of self-knowledge. As Montessori notes, “The work diary helps the child to develop good work habits… awareness of organisation of time… balance between presentations and independent work.”

Here, children learn the entrepreneurial competence of self-management: monitoring their own work, assessing what still needs attention, and making intentional choices. Entrepreneurs must be their own managers—this daily habit builds precisely that capacity.

Individual Conferences: Co-Creating the Learning Path

Regular teacher–child conferences deepen this reflective process. These moments are not checklists of compliance but collaborative development meetings. Children bring their work, express the challenges they have encountered, reflect on their interests, and help determine next steps.

Through this process, children practice strategic thinking, a key entrepreneurial skill: evaluating their current position, identifying resources they need, articulating a

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direction, and taking responsibility for their development. They learn that their learning journey is something they actively shape—not something handed down to them.

To-Do Lists Versus Deep Choice: Balancing Requirements and Passion

A crucial entrepreneurial ability is learning to balance external expectations with intrinsic motivation. In the classroom, children must meet curricular requirements and complete essential tasks, but they also have extensive freedom to pursue personal projects and areas of deep interest.

This dynamic mirrors real entrepreneurial judgment: managing priorities, meeting obligations, and still creating space for innovation and passion. Children learn that discipline and creativity are not opposites—they are partners in meaningful work.

From "When and How" to "Why and What If": Growing Intellectual Independence

The transition from the Children's House to Elementary further supports this developmental trajectory. While Casa children receive precise presentations, Elementary children receive the "keys to exploration"—broad, inspiring lessons meant to spark further inquiry. After a multiplication lesson, the child creates their own problems; after a Great Lesson on civilizations, they choose what they want to research.

By age 12, Montessori emphasizes that children "should be able to use their minds and give reasons for behavior, opinions and ideas." This ability—independent reasoning, questioning, generating ideas—is central to entrepreneurial innovation. The elementary environment encourages children not only to follow instructions but to think critically, ask "Why?" and imagine "What if?"

Through these practices, Montessori Elementary students build the internal structures necessary for responsible, balanced, self-directed work. They learn to plan, monitor themselves, evaluate progress, make informed decisions, collaborate with mentors, and act with purpose. These are not only academic skills—they are life skills that prepare children to navigate complexity, pursue meaningful goals, and take entrepreneurial action in the world with clarity, confidence, and ethical grounding.

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Envisioning Possibilities: Imagination as the Engine of Innovation

Imagination is not an ornament in the Montessori Elementary classroom—it is a tool of reasoning, abstraction, and creative problem-solving. While the child in the Children's House builds understanding through the hand, the Elementary child increasingly understands through the mind that can imagine what cannot be seen. This developmental shift is essential for entrepreneurial competence, where the ability to imagine possibilities, envision solutions, and design what does not yet exist forms the core of innovation.

Imagination as a Pathway to Understanding

In daily work, imagination becomes the bridge between concrete experience and abstract thought. Through stories, experiments, and open-ended exploration, the child travels through time to meet ancient civilizations, descends into the Earth to understand geological processes, and pictures mathematical relationships far beyond what their hands can physically manipulate.

The prepared environment deliberately nourishes this power. The Great Stories invite the child into a universe filled with unanswered questions and unfolding mysteries. Materials and lessons offer keys, not closed systems: they point toward possibilities rather than dictating procedures. Children are regularly encouraged to ask "What if?"—and to pursue their answers through research, experimentation, and creation.

This is precisely the entrepreneurial competence of creativity and vision: the capacity to look beyond present reality, imagine alternative futures, and explore them with curiosity and confidence.

Imagining What Does Not Yet Exist

Entrepreneurs transform imagination into value through purposeful action. Montessori children learn this connection early. Each time they design an experiment, create a model, write a play, or plan a Going Out experience, they practice the essential skill of turning an idea into something real—something that can be shared, tested, improved, and used by others.

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Montessori understood this deeply. She noted that humanity arrived on Earth not with the sharp claws or instincts of other species, but with something far more powerful: three gifts that make human progress possible.

- A mind that can imagine what is not yet there,
- A heart capable of caring and connecting with others,
- And hands that build, create, and transform the environment.

These three gifts represent the essence of human innovation—and they mirror the EntreComp vision of entrepreneurship as the capacity to turn ideas into action that creates value for others.

Integrating Mind, Heart, and Hand

In Montessori education, imagination does not float freely; it is grounded in purpose, guided by ethical awareness, and directed toward meaningful work. The Elementary environment cultivates all three human gifts in harmony:

- The mind stretches outward, forming hypotheses, imagining systems, and crafting new solutions.
- The heart provides motivation, empathy, and the awareness that ideas must serve others.
- The hand gives form to imagination—building models, conducting experiments, writing presentations, or planning community projects.

This integration prepares children not only for academic abstraction, but for the kind of creative and responsible agency that defines entrepreneurial thinking. It shows them that ideas are powerful not because they are clever, but because they can be transformed into meaningful action.

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A Child as a Citizen of Future World: creator and contributor

"The child is both a hope and a promise for mankind."
—Maria Montessori

Entrepreneurship in Montessori education is not a narrow preparation for business—it is the cultivation of a way of being in the world. It equips children with the mindset, capacities, and moral orientation needed to become problem solvers, creators, and contributors throughout their lives. Montessori education helps them grow into individuals who can imagine a better future and take meaningful action to create it.

A Developmental Journey Toward Contribution

Across the developmental planes, Montessori education follows a clear human trajectory: from constructing oneself to contributing to society. Each stage deepens the child's ability to think independently, act purposefully, and take responsibility for their place in the world.

6–12 years: The Reasoning Explorer

In the Elementary years, the child becomes a thinker—capable of questioning, reasoning, imagining, and understanding how complex systems work.
Key achievement: "I can think for myself."
Project work, collaborative research, Going Out, and community responsibility all lay the foundation for initiative, planning, leadership, and meaningful action.
The child discovers both their independence and their interdependence with the wider world.

12–18 years: The Social Newborn

During adolescence, the young person begins to construct social and economic independence.
Key achievement: "I can contribute and stand on my own."

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Montessori Erdkinder programs, micro-economies, and farm work give adolescents the direct experience of creating value through real work—balancing resources, responding to community needs, solving practical problems, and learning from the consequences of their choices.

18–24 years: The Age of Spiritual and Moral Independence

In early adulthood, the individual seeks deeper purpose and the freedom to act upon it.
Key achievement: “I can give back and shape the world.”
This is where the seeds planted in childhood—initiative, empathy, imagination, and resilience—become the compass for responsible adulthood.

The Capacities Our Future Needs

Creativity, innovation, problem-solving, risk-taking, initiative, responsibility, and resilience—these are the competencies the EU describes as essential for entrepreneurship. They are also the qualities Montessori education nurtures organically from early childhood onward. But entrepreneurship, in the Montessori sense, extends far beyond starting a business:

- It includes social entrepreneurship, where ideas address real human and environmental needs.
- It includes intrapreneurship, the ability to innovate within teams, organizations, and communities.
- It includes cultural entrepreneurship, the creation of meaning, beauty, and shared understanding.
- And it includes community building, where individuals work together to improve collective life.

Montessori children grow up understanding that work is not merely a personal pursuit—it is a contribution to the ongoing creation of our shared world.

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A Hope and a Promise

When Montessori wrote that the child is both hope and promise for humanity, she was describing precisely this: a future shaped by individuals who know how to imagine better possibilities, collaborate with others, solve complex problems, and act responsibly for the common good.

A child who grows in such an environment does not wait for adulthood to become a citizen—they practice citizenship every day through the choices they make, the responsibilities they take, and the care they show for others and the Earth.

These are the citizens of the future world:
innovators with imagination, leaders with empathy, and creators who understand that their work can—and must—serve the whole human family.

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How Entrepreneurship is visible in Montessori Elementary classroom?	
Essential knowledge	
Different contexts and opportunities for turning ideas into action in personal, social and professional activities and understand how these arise	Children choose personal projects, participate in Going Out experiences, and collaborate on community initiatives such as classroom events, snack preparation, or environmental projects. They see how ideas can create value beyond themselves.
Planning and managing of projects, including processes and resources	Children organize experiments, research projects, or presentations: they gather materials, allocate time, coordinate with peers, and follow steps from conception to completion.
How the economy works	Through stories from barter to modern money, tracking product journeys (e.g., where bread comes from), and class discussions on trade, supply, and resource interdependence.
Social and economic opportunities and challenges facing an employer, organisation or society	Children explore micro-economies, community service projects, or simulations of collective work that require resource management, collaboration, and understanding of social needs.
Being financially literate: managing personal finance, savings, investment and borrowing	Planning classroom purchases (snacks, materials), calculating budgets for Going Out activities, comparing prices, evaluating cost vs. benefit of projects.
Ethical principles	Daily life in the classroom, collaborative work, community rules, restorative justice practices, discussions on fairness, honesty, and responsibility.
Their own strengths and challenges	Regular self-reflection in work diaries, individual conferences with teachers, identifying areas of interest, skills they wish to improve, and strategies for growth.
Core skills	
Use their imagination within creative processes and innovations	Designing experiments, inventing models, creating research presentations, proposing new ways to approach projects, “What if?” questions driving inquiry.
Think strategically and problem solve	Planning steps for Going Out trips, resolving conflicts during group work, adapting projects when resources or information are limited.
Manage projects: plan, organise, manage, lead and delegate	Children lead small groups, assign roles, sequence activities, track progress, and ensure collaborative projects reach completion.

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Make financial decisions relating to cost and value and estimate the cost of turning an idea into a value-creating activity	Budgeting for classroom needs, planning purchases for science experiments, evaluating materials needed for art or geography or other projects.
Plan, put in place and evaluate financial decisions	Reviewing spending outcomes, checking that purchases met needs without waste, reflecting on the impact of resource use.
Cope with uncertainty, ambiguity and risk as part of making informed decisions	Taking responsibility for Going Out trips, experiments that may fail, or group projects with unpredictable outcomes, learning to adapt and revise plans.
Work autonomously	Selecting work, gathering materials, completing independent projects, pursuing self-chosen research topics.
Collaborate with others	Small group work, teaching younger students, peer review, co-leading projects, negotiating turns on scarce materials.
Identify their own strengths and limitations	Reflection in diaries, teacher conferences, peer feedback, setting goals based on past experiences and challenges.
Attitudes (students value)	
Taking initiative	Choosing projects, volunteering for classroom tasks, proposing new ideas or experiments, etc.
Being proactive and forward-looking	Anticipating what materials are needed for a project, planning steps ahead for experiments or Going Out activities.
Courage and perseverance in achieving objectives	Completing long-term projects, persisting after errors in experiments, tackling challenging research questions.
Being motivated and determined	Following personal interests in extended projects, consistently caring for classroom and community responsibilities.
Others' ideas	Listening to peers, integrating feedback, adapting projects based on suggestions, participating in group decision-making.
Empathy and taking care of people and the world	Classroom jobs, gardening, caring for animals, community visits, and service-based projects.
Being responsible and ethical	Maintaining shared spaces, using resources mindfully, honesty in recording experiments and financial decisions, fairness in group work.

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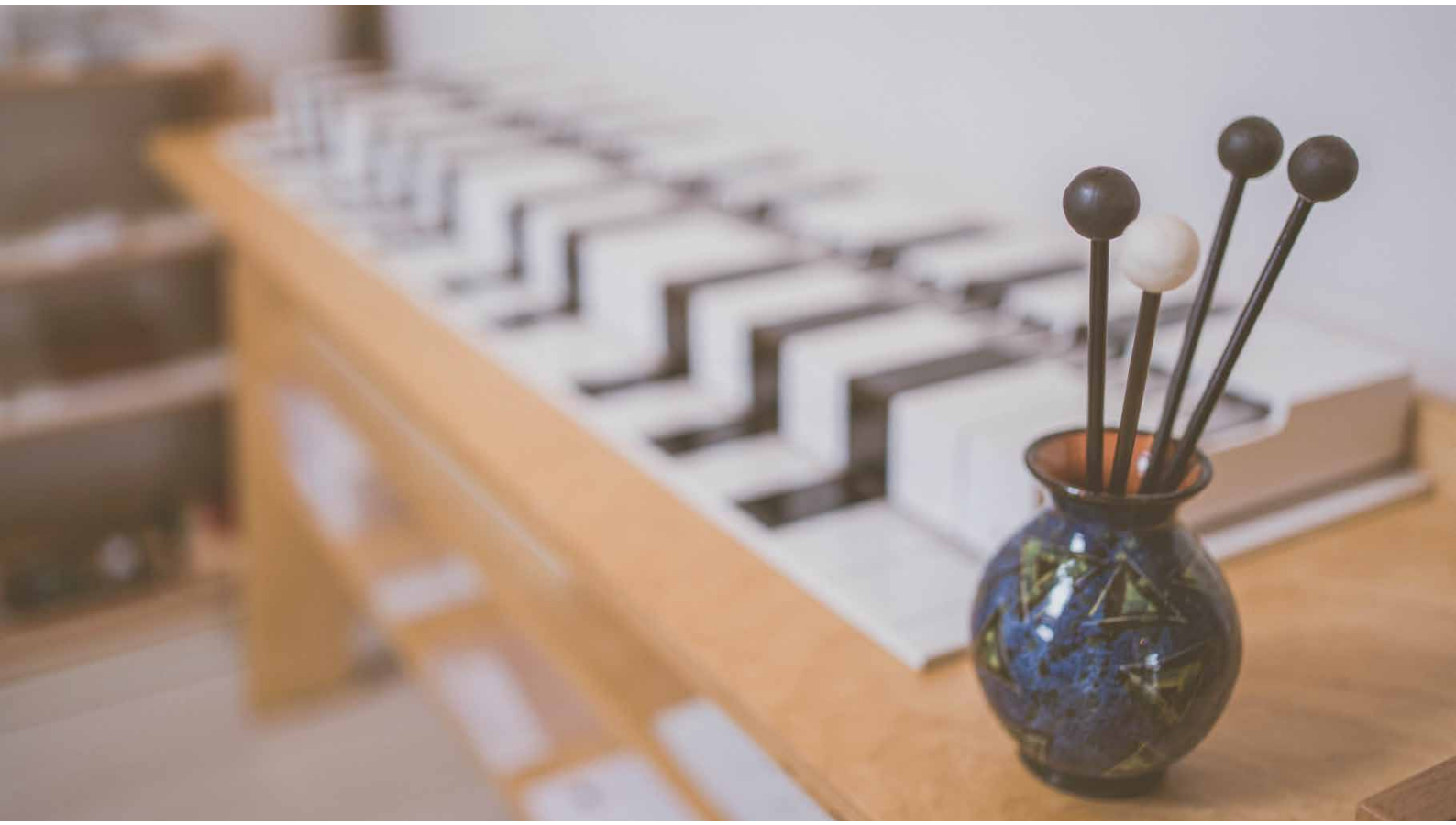
10 CHAPTER

CULTURAL AWARENESS AND EXPRESSION COMPETENCE



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Cultural Awareness and Expression Competence

Competence in cultural awareness and expression involves having an understanding of and respect for how ideas and meaning are creatively expressed and communicated in different cultures and through a range of arts and other cultural forms. It involves being engaged in understanding, developing and expressing one's own ideas and sense of place or role in society in a variety of ways and contexts.

Knowledge

This competence requires knowledge of local, national, regional, European and global cultures and expressions, including their languages, heritage and traditions, and cultural products, and an understanding of how these expressions can influence each other as well as the ideas of the individual. It includes understanding the different ways of communicating ideas between creator, participant and audience within written, printed and digital texts, theatre, film, dance, games, art and design, music, rituals, and architecture, as well as hybrid forms. It requires an understanding of one's own developing identity and cultural heritage within a world of cultural diversity and how arts and other cultural forms can be a way to both view and shape the world.

Skills

Skills include the ability to express and interpret figurative and abstract ideas, experiences and emotions with empathy, and the ability to do so in a range of arts and other cultural forms. Skills also include the ability to identify and realise opportunities for personal, social or commercial value through the arts and other cultural forms and the ability to engage in creative processes, both as an individual and collectively.

Attitudes

It is important to have an open attitude towards, and respect for, diversity of cultural expression together with an ethical and responsible approach to intellectual and cultural ownership. A positive attitude also includes a curiosity about the world, an openness to imagine new possibilities, and a willingness to participate in cultural experiences.

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Building Foundation in the First Plane of Development

In the first plane of development, the child lives deeply inside the world of his own culture. His days unfold between home and the Montessori Children's House, two places that quietly shape who he is becoming. Everything around him—how food is prepared, the songs adults hum while working, the way people greet each other, the local art on the walls—forms a cultural landscape the child absorbs effortlessly through his Absorbent Mind. He does not learn culture the way older children do; he breathes it in simply by living.

In the Montessori kindergarten, culture is woven gently into daily life. Practical life activities reflect the traditions and habits of the local community: polishing wooden objects made by local artisans, arranging flowers in the style familiar to the region. These are small acts, but for the young child, they are profound. He is not "studying" his culture—he is participating in it. Through these experiences, his cultural identity begins to root itself deep within him.

Alongside this foundation, the environment also opens a window to the wider world. Cultural folders, maps, flags, and stories from different continents invite the child to notice that humanity expresses itself in countless ways. A child may place a tiny picture of a Japanese temple next to a photo of a Lithuanian church, or listen to a story about how children in South America celebrate a holiday. These simple moments stretch his imagination and plant the seeds of global curiosity. He learns that while he belongs to one culture, many others exist, each beautiful in its own way.

Expression is an essential part of culture, and in the Children's House, the child learns to express himself freely. This begins with something often overlooked: the attitude toward mistakes. In a Montessori environment, errors are treated as friends. No one rushes to correct or judge. Instead, the child discovers that his ideas, attempts, and experiments are welcomed. This freedom builds confidence—an essential element of cultural expression later in life.

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Practical skills follow naturally. The child learns how to hold a pencil with ease, how to use a brush with intention, how to cut, glue, fold, and choose colours with sensitivity. The Sensorial materials refine his perception of size, sound, texture, and tone, giving him the artistic vocabulary he will later use to create. And so, the child begins to express himself. In music, through the Montessori bells, he experiments with tone, rhythm, and songs that echo through the classroom. In art, he draws, paints, designs patterns, and mixes colours, discovering the joy of making something that comes from within. In early writing, he creates small handmade booklets, first expressing ideas with the Movable Alphabet, then slowly transferring them onto paper in flowing cursive.

Each of these experiences is a key—a key to creativity, to confidence, and to feeling at home in both his own culture and the wider world. By the time he moves into the elementary years, he carries these keys with him. He walks forward ready not only to understand culture but to participate in it, express it, and one day, contribute something new of his own.

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Planting the Seeds of Global Citizenship

In the heart of Montessori education lies a quiet, powerful invitation: for every child to come to know themselves not only as individuals, but as vital participants in the great unfolding story of humanity. This is not a story bound by time or geography—it is a story that stretches across centuries, cultures, and continents. It is the story of human curiosity, of invention, of courage, of beauty, and of connection. In the Montessori elementary classroom, we do more than teach facts—we offer children the keys to understanding their place in this vast, interconnected world.

At the core of this vision is the principle of *cultural awareness*. It is here that the child begins to recognize that they are not just a member of a family or a local community—but a citizen of the world. In today's global society, where ideas, goods, and experiences cross borders effortlessly, cultural awareness is no longer a luxury or an abstract concept. It is essential. It fosters empathy. It celebrates diversity not as difference, but as the radiant expression of a shared humanity. It prepares children to navigate a complex, interdependent world with respect, curiosity, and peace.

Montessori education sees the child as a builder of the future. Through cultural studies, we do not merely inform but we inspire. We provide the context and the keys, so that children can explore civilizations, traditions, beliefs, and values—not to memorize them, but to feel them, connect with them, and honor them. We help them see that behind every language, every artifact, every ritual, is a human being—just like them—seeking meaning, beauty, and belonging.

Cultural awareness rooted deeply in Montessori philosophy, becomes a powerful tool in nurturing global citizens: *children who not only understand the world, but who care for it, and who are ready to shape it with wisdom and compassion*.

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Knowledge Development Through History Lessons: The Fundamental Needs - A Universal Mirror

Let us begin with a question. *When was the last time you experienced a cultural misunderstanding?* Perhaps you felt misunderstood… or you were the one who misread something—someone's words, gestures, or way of doing things. How did it make you feel? Did it create distance? Did it make you pause and reflect? Now imagine being a child—still learning how to name emotions, still discovering your place in the world—and encountering those moments. Montessori education prepares the child not to avoid these experiences, but to understand them, and to approach the world with curiosity, empathy, and connection.

But how do we help children raise their awareness of the *universality* of what it means to be human? We begin not with culture itself, but with something deeper: with what all people have in common. The starting point is the *Fundamental Needs of Humans*.

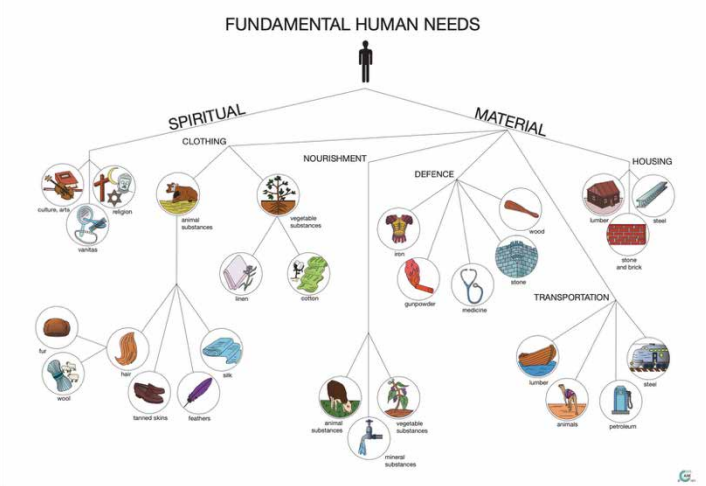
In the Montessori elementary classroom, the study of culture and history begins in a very human way: not with facts or timelines, but with the child himself. We gather the children in a circle, the Fundamental Needs Chart beside us, and invite them to pause and look inward before they look outward. The chart is simple at first glance—two broad categories, material and spiritual—but it holds within it the key to understanding every human story ever lived.

We begin with something familiar. "What did you have for breakfast this morning?"

A hand lifts. "Bread."

And then we follow the thread together: "Where did the bread come from? Who grew the wheat? Who harvested it? Who ground it into flour? Who baked it?"

Suddenly, a slice of bread becomes a doorway to the entire human community. The children begin to see that their



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everyday lives are touched by countless hands—people they will never meet, living in places they may never visit. This is usually the moment when they lean in a little closer. Interdependence stops being a moral lesson or a distant idea; it becomes something they can feel.

From here, we turn to the chart. “What do all people need to live?” we ask.

The children quickly call out nourishment, shelter, clothing, transportation. Then they pause, reflecting on the second half of the chart—those spiritual needs that are less visible but just as essential: art, love, belonging, religion, beauty, meaning. These needs reach beyond survival. They define who we are. And here, the children begin to sense something profound: no matter where we live, no matter the age or culture, these needs belong to all of us. They are the universal fingerprints of humanity.

With this foundation, the study of history unfolds naturally. We turn to the Ancient Egyptians or the people of the Arctic, or a civilization nestled deep in a rainforest. But instead of memorizing dates or kings, the children look through a different lens:

“How did these people meet the same needs we have?” “How did their environment help or challenge them?” “What solutions did they invent? What beauty did they create?”

History becomes a long, unfolding story of human creativity. Culture stops being something “different” or “other” and instead becomes a celebration of human ingenuity. A child no longer says, “That’s strange,” but rather, “That’s clever… That’s beautiful… That’s human.”

This shift is transformative. Through the Fundamental Needs, the children discover that every culture is a response—an imaginative, courageous, intelligent response—to the same fundamental conditions of life. And in this recognition, a quiet respect begins to grow. They start to see themselves in others and others in themselves.

This is the heart of cultural awareness in the Montessori approach. It does not begin with geography lessons or historical sequences—it begins with empathy. With wonder. With recognizing the shared human story. And from this foundation, the child steps forward ready to encounter the world not with judgment or distance, but with curiosity, admiration, and belonging.

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Story from the classroom

Where does the Bread Come From?

We have cards that illustrate human interdependencies within a local community. For example, when we look at something as simple as bread, we explore where it comes from. Bread needs water and wheat, so we ask, where does the wheat come from? How does it get to us? And this leads all the way back to the farmer who grows it. In this way, children begin to see the complex web of relationships and dependencies that support even the most everyday things. It's a powerful way to show them how we rely on each other within our communities.

But we don't stop there. We also study international and global exchanges, like trade between countries. For older children, we create a special map that shows our country's trade with others, using two colors—blue and red—to represent imports and exports. While we don't explain all the details to the children, for us educators, it's like watching the human body in action—the blood transporting everything that each part needs—just like global trade moves resources around the world.

This is where we connect with our presentations about the human body to make this parallel even clearer for children. Global trade resembles the bloodstream supplying the entire body, and the internet, which now transports knowledge and information, acts like the nervous system. Through this, we help children understand that we are actually one fascinating, interconnected organism—almost like one body where every system depends on the other. This is a beautiful key that allows children to discover for themselves how deeply connected and interdependent we ALL are—not only locally but on a global scale.

Jolly HOME SCHOOL, Slovakia

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The Cosmic Vision: Everything Is Interconnected

To help children truly understand culture, we must also help them understand the world it grows from. Culture does not float in isolation—it is born from climate, land, animals, resources, history, and the needs of communities. It is shaped by rivers and mountains, by soil and rain, by sunlight and seasons. And so, in the Montessori elementary environment, we offer children another essential key: the Interdependence Chart.

When we unfold this chart before the class, it is as if we are opening a window into Maria Montessori's way of seeing the world. Long before modern science described ecosystems and systems thinking, she observed life as a great cosmic dance—each being following laws, fulfilling a task, and contributing to the harmony of the whole. She watched the ant, the tree, the river, the bird, and she saw purpose. She watched the children in her classroom and saw the same thing: the need to understand why everything exists and how everything fits together.

The second-plane child, the 6–12-year-old, is filled with this hunger for meaning. Naming is no longer enough. Their eyes brighten with deeper questions: "Why does the sun matter?" "What would happen if bees disappeared?" "How do mountains help life?" "Who depends on whom?"

And so, we guide them gently through the web of life. "Look at the sun," we say. "It follows laws. It gives energy." "Look at the mountain. It follows laws. It shapes rivers." "Look at the bird, the tree, the water—they too follow laws and serve their part."

Slowly, the children begin to recognize that nothing stands alone. Every life is connected to another life, every system supports another system. Even human beings, who often imagine themselves separate, are woven into this same fabric of laws— not only of nature, but of society, culture, and morality.

This cosmic lens changes everything. When we introduce culture, it is never simply a list of traditions or artifacts. Instead, it becomes a story of human response—how people, across time and place, have read the environment around them and shaped

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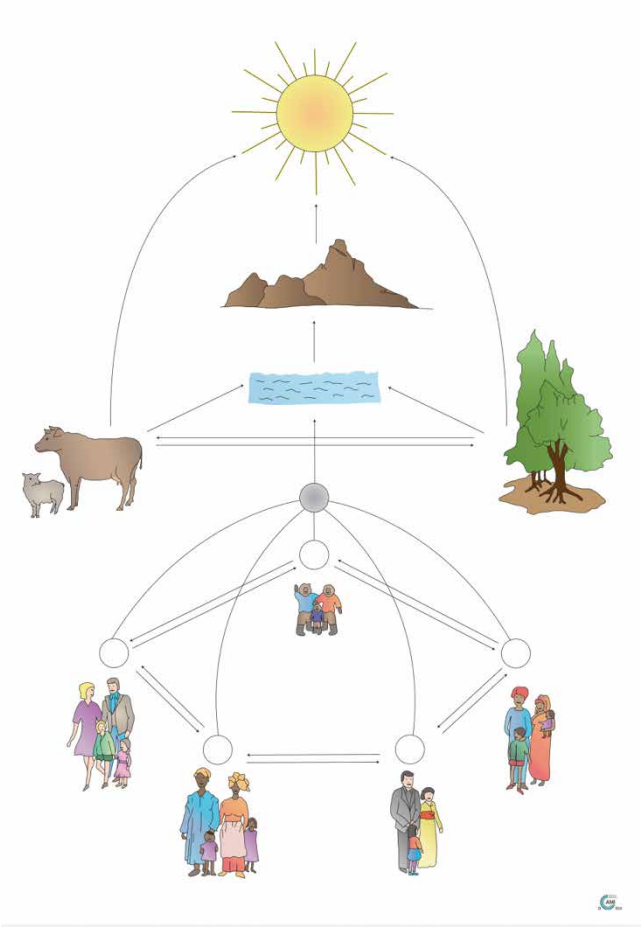
their lives in harmony with it. Culture becomes a contribution, a gift to the world's balance: how people build homes adapted to climate, develop food systems based on local ecology, create tools that meet shared needs, and express beauty inspired by their surroundings.

Through the Interdependence Chart, children see that humans are not outside of nature—we are participants. Our cultural choices leave fingerprints on the earth, just as the earth leaves fingerprints on our cultural evolution.



And when children grasp this, culture becomes more than an academic subject. It becomes a living awareness:

- that we belong to a world where everything depends on everything else,
- that our choices matter,
- and that, just like the sun, the mountain, the bee, and the river, we too have a task to fulfill in the harmony of the whole.

This is the cosmic vision that shapes the Montessori approach—the understanding that everything is interconnected, and that human culture is one of the many beautiful threads in the great tapestry of life.

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Story from the classroom

The Timeline of Human Beings

One morning, a small group of children unrolled the Timeline of Human Beings *across the classroom floor. The long ribbon of images and symbols stretched in the room, inviting them into the slow, unfolding story of humanity. They gathered around it with quiet anticipation, tracing the earliest signs of human life—simple tools, fire, shelters made from materials found in nature. As the children moved along the timeline, they were not led to focus on specific nations or isolated events. Instead, they observed how human societies gradually became more complex as people responded to their environments and worked to meet their fundamental needs. With the help of their imagination and stories that they heard they noticed repeating pattern on the timeline: how early humans shaped stones into tools, created pigments to paint their experiences, and followed animal herds or seasons to find food, imagine migrations across deserts, forests, and oceans, observing and reasoning that movement was often driven by exploration, survival, or the search for community. The timeline no longer appeared to be a collection of distant cultures or strange customs, but a continuous thread of human creativity and adaptation.*

As they continued along the long paper path, the children saw the universality of human tendencies unfold—our urge to explore, to create, to imagine, to belong. Across thousands of years and countless landscapes, every group of people had used their hands, minds, and hearts to shape lives that met the same fundamental needs. By the time they reached the end, it became clear to the group that the story was not finished. The timeline placed them gently within the same narrative—another generation with the capacity to contribute, invent, and express what it means to be human. And this is the quiet power of the timeline in Montessori education: it roots cultural awareness not in difference, but in shared humanity. It invites children to step into history with a sense of unity, gratitude, and belonging—seeing themselves as part of a vast and interconnected human journey.

Jolly HOME SCHOOL, Slovakia

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Belonging to the Whole and Building Identity

As children journey through these cultural lessons, something subtle yet powerful begins to unfold within them. At first, they listen with curiosity—about ancient peoples, faraway lands, different customs. But gradually, a deeper understanding takes root. They stop seeing human beings as distant tribes, exotic cultures, or isolated civilizations. Instead, they begin to sense the quiet truth that has always been there: we are all human, shaped by different landscapes yet bound by the same needs, the same planet, the same great story.

This shift is not merely intellectual. It is emotional. It is personal. A child begins to feel belonging—not only to their family or community, but to the vast family of humanity. A sense of identity starts to take form, grounded in the knowledge that "I come from somewhere," and equally, "I am part of something much bigger."

And as this awareness grows, a new kind of expression emerges. Children begin to create not as imitators, but as individuals discovering their own voice. Their art becomes more intentional, their writing more reflective, their projects more meaningful. They no longer express themselves to please the adult; they express to communicate who they are.

"This is my perspective." "This is my story." "This is how I understand the world."

This is the essence of cultural awareness—not just learning about culture, but internalizing a foundation of identity that is rooted, confident, and open-hearted. Montessori education aims for this: an identity that can proudly say, "I belong to my family and my people," while also whispering with equal conviction, "I belong to humanity."

When we weave together all the threads of Montessori cultural education—the Fundamental Needs lessons that show our shared humanity, the Interdependence Chart that reveals our place in the cosmic web, the Great Lessons that spark awe, and the child's own natural drive to understand—we are not giving answers. We are giving keys.

- Keys to wonder: "How did they live?"
- Keys to connection: "They are like me."

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- Keys to peace: “We are all part of one world.”

Maria Montessori believed that humanity is already united—through nature, through the movement of goods and ideas, through the invisible threads that bind ecosystems and communities. The true challenge, she said, is that we do not yet act like we are united. Education, therefore, must offer children a new perspective: one that does not erase differences but celebrates them as beautiful expressions of the same human spirit.

And so, in our Montessori classrooms, we plant these seeds with intention and care. We tell the great stories of the world. We explore how people meet their fundamental needs. We follow the lines of interdependence that stretch across continents and centuries. And as children grow in knowledge, they also grow in awareness—developing empathy, humility, and a quiet confidence that they, too, have a meaningful role in this shared world.

This is the heart of Montessori cultural education. This is how understanding becomes identity. And this is how we begin to raise children who are not only citizens of their countries, but citizens of the world.

„It is necessary to understand that every nation has its own task, and yet all of these tasks are part of a single work – the creation of a peaceful world.“

Maria Montessori, Education and Peace, Chapter 13

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Building Essential Skills to Make Identity Visible

In Montessori, creative expression is not an extracurricular activity—it is a natural extension of the child's inner life and a vital part of the prepared environment. The classroom is rich with possibilities: materials, tools, and presentations that invite children to explore who they are and how they see the world. The guide offers lessons that open doors to multiple forms of expression. Calligraphy, for example, becomes more than handwriting; it is an exploration of style, intention, and the message we wish to convey. Art lessons go far beyond simple drawing. Children encounter lino printing, crochet, ceramics, watercolour, and other techniques that offer different textures and languages of expression.

Through these experiences, children refine their abilities and discover the value of handwork—something often overlooked in today's fast-paced world. Whether they are crafting a handmade book, sewing bags for classroom materials, or designing their own cards, they are not simply practicing skills. They are embedding their identity, their choices, and their vision into what they create.

We also broaden their understanding by inviting them into the world of real art and music. Music is not limited to what plays on the car radio; instead, children listen to Mongolian throat singing, traditional songs from various cultures, classical compositions, and contemporary instrumental works. In visual art, they encounter masterpieces in museums, explore galleries, and handle sets of art cards grouped by style, theme, or technique. They learn, for example, how different artists interpret the sea—each painting unique, each perspective valid. This becomes a quiet but powerful lesson: You can shape the world according to how you see it.

Such exposure does more than cultivate appreciation—it awakens creativity and helps children find their own voice. They also deepen these skills through collaborative

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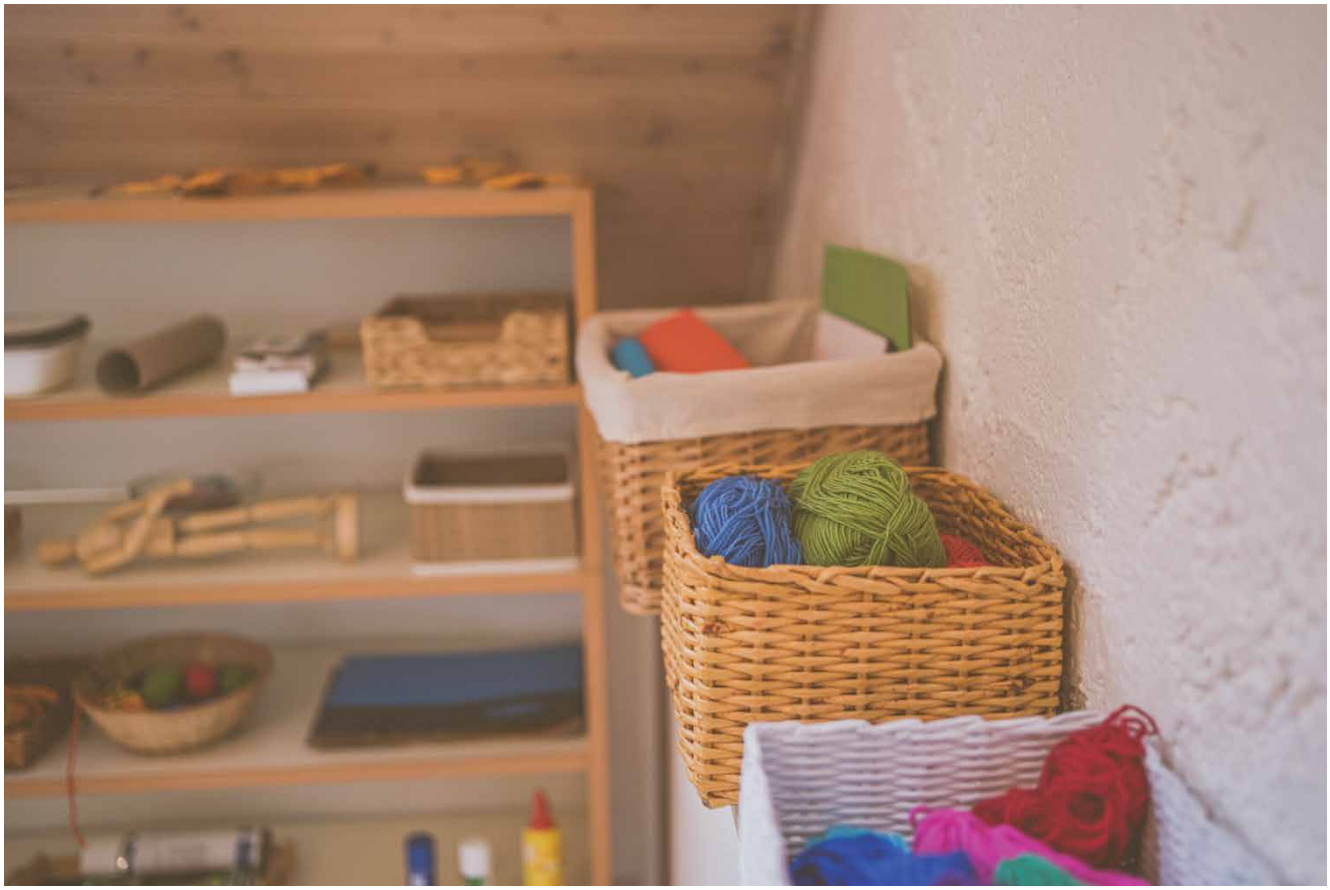
projects. Working together, they discuss, negotiate, and decide how something should look or what story it should tell. Even a simple question like “What did you have for breakfast?” can become a doorway into culture, leading them to explore agriculture, geography, trade, and technological innovation across history.

Research, dialogue, and storytelling unfold naturally as they ask: *How did Egyptians stay cool in the desert? What fruits grew in places without apples? How did different cultures express joy or nourish their spiritual life?* Through such investigations, children strengthen essential academic skills—critical thinking, comparison, analysis, synthesis—while simultaneously cultivating empathy and cultural awareness. They begin to see the world not as a place divided by differences, but as a mosaic of shared human needs expressed in beautifully diverse ways.



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Story from the classroom

A Path to Creativity

In Montessori Akademija, the arts and crafts shelf has a special magic of its own. Each time the guide presents a new technique—how to thread a needle, mix watercolours, blend pastels, or fold paper into simple shapes—the classroom gathers in a quiet semicircle. The children watch carefully, their eyes following every movement. The presentation is not just about learning a skill; it is an invitation to enter the creative process with confidence and independence.

Once the presentation ends, the room opens again into gentle activity. One by one, children begin to flow toward the arts and crafts shelf. Some arrive with a clear plan—a bracelet they've been meaning to finish, a drawing they started yesterday. Others come simply because the materials call to them: soft yarn, coloured pencils, clean paper, tiny scissors that fit perfectly in their hands. Here, creativity becomes part of everyday life. For some, this corner of the classroom brings a deep sense of calm. They settle into quiet concentration, carefully choosing colours and arranging their tools. The rhythm of cutting, gluing, or painting helps them centre themselves. Their breathing slows. Their shoulders relax.

For others, the shelf becomes a place of joyful experimentation. They try new techniques, combine materials unexpectedly, or proudly show a friend how they just discovered a new pattern. Their work carries a simple beauty—an aesthetic that gently spreads through the classroom as finished pieces decorate shelves, hang near windows, or become gifts for classmates.

What begins as a short demonstration from the teacher turns into a long, unfolding journey for the children—a space where creativity, peace, and independence naturally weave into their daily Montessori life.

Montessori Akademija, Lithuania

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Attitudinal Development Recognizing Human in Every Culture

In Montessori education, attitudinal development does not happen through lectures or moral reminders. It grows quietly—through the stories we tell, the materials we offer, the art we explore, and the freedom children have to express their inner lives. At the heart of it all is one essential truth: **every culture is an expression of universal human needs.** When children begin to see this, they no longer look at cultural differences with confusion or judgment, but with curiosity, gratitude, and respect.

Participating in Cultural Experiences: Entering the Story, Not Just Studying It

Children in the Montessori elementary classroom do not simply learn *about* cultures—they *experience* them. They explore West African rhythms, study Islamic geometric design, and examine how the landscape has been painted by dozens of artists across centuries. They handle real artifacts, visit museums, participate in festivals, taste and make foods, read folktales, and learn dances or games from different parts of the world. By participating rather than observing from a distance, children develop an attitude of openness. Cultural life becomes something they belong to—not something foreign or separate. They come to understand that human creativity lives everywhere, and that entering the expression of another culture is an act of respect.

Valuing the Diversity of Cultural Expression: Seeing Humanity in Many Forms

As children discover both ancient and modern civilizations, they begin to recognize universal human tendencies—our need to orient, to build, to communicate, to celebrate, to create beauty, to seek the sacred. These insights shift their attitude:

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differences are no longer “strange,” but simply **different expressions of the same human heart.**

Through the Great Lessons, fundamental needs charts, timelines, origin stories, and research projects, children come to see diversity not as contrast, but as richness. This nurturing of attitude goes beyond tolerance—it becomes appreciation, even gratitude.

Ethical and Responsible Cultural Ownership: Honoring the Work and Wisdom of Others

Montessori children grow up surrounded by the creations of human civilizations: the Indian number system, the Arabic astrolabe, Chinese papermaking, Mesopotamian writing, Egyptian architecture, Greek philosophy. They learn where ideas came from, who discovered them, and how they spread across continents. This builds a moral attitude toward knowledge itself:
ideas are gifts passed down through humanity, not things to claim as our own.

When they study music, they learn to credit the composer; when they reproduce artwork, they acknowledge the artist; when they share information, they cite their sources. Respect for intellectual and cultural ownership becomes natural—because they understand they are participating in a vast human story, not collecting isolated facts.

Curiosity About the World and Imagining New Possibilities: From “Why?” to “What If?”

The Montessori environment invites children into a lifelong posture of wonder. Whether exploring how early humans survived in deserts, why different languages developed unique scripts, or how seeds traveled across trade routes, children learn that the world is full of unanswered questions. And unanswered questions become invitations.

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This curiosity is intentional: *we do not give children all the answers—we give them keys.* Keys to explore, to question, to imagine different futures. Curiosity becomes not just an academic skill but an attitude toward life. The child begins to walk through the world not with fear of the unfamiliar but with excitement for what can be learned from it.

Artistic Self-Expression and Participation in Cultural Life: Finding One's Own Voice

Expression in Montessori is not a separate subject—it is woven into every corner of the classroom. Children practice different ways of drawings, write stories, compose music, make maps, create timelines, and even bind their own books. These skills are not taught so children can copy a standard—but so they can express who they are. As they explore diverse artistic traditions, they also begin shaping their own.

This nurtures a deeply personal attitude: **My voice matters. My perspective has value. I, too, contribute to culture.** Creative work becomes a bridge between knowledge and identity, between personal expression and global awareness.

Ultimately, Montessori cultural education builds attitudes that go far beyond academic understanding. It shapes how children *see* people. When faced with the unknown, do they react with judgment—or curiosity? With fear—or interest? With indifference—or respect?

By grounding children in universal human tendencies, exposing them to the "supramind" of shared human wisdom, and giving them endless opportunities to express themselves authentically, we cultivate humility, appreciation, and wonder.

This is the foundation of cultural awareness:
a heart that recognizes humanity everywhere,
a mind that values diversity,
a spirit that participates in culture with responsibility and joy,
and an identity that knows:
"I belong to my people… and I belong to humanity."

That is the attitude we grow—one creative act, one story, one moment of wonder at a time.

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Indirect Preparation for Expression: Creating the Conditions for the Child's Voice

In Montessori education, expression is never forced, staged, or extracted. It is not something we demand from children—*"Express yourself now!"*—because anything produced under pressure rarely reflects the inner world of the child. True expression rises gently, like breath, when the conditions are right. That is why Montessori spoke so passionately about freedom: freedom in time, in space, and in choice. This freedom is not a vague ideal; it is an essential part of the child's preparation for authentic expression.

A Space Where Expression Can Breathe

In the Elementary classroom, long stretches of uninterrupted work time become fertile ground for creativity. A child who is composing a melody, carving a linoprint, or writing a mythological story needs depth of time—time that doesn't expire with a bell or get interrupted by constant transitions. Expression cannot grow in a rushed environment. It needs spaciousness, the sense of "I can stay with this as long as my heart wants to."

Children choose what they want to work on and *how* they want to approach it. A study of volcanoes might become a hand-drawn booklet, a three-panel comic, a dramatic performance, or a small documentary filmed on a tablet. When the "how" belongs to the child, expression becomes natural, not imposed.

Skills as Seeds, Not Scripts

While freedom opens the door, knowledge and skill give expression its wings. For this reason, Elementary classrooms are rich with small, quiet presentations that teach techniques detached from any specific project. The children might learn how to create a mosaic, how to crochet a small pouch, how to bind a booklet, how to use watercolor washes, or how to carve patterns into clay. They might practice writing in calligraphy, exploring how different fonts communicate different moods. These lessons are gifts—keys placed gently into their hands. The children do not need to use them immediately; they tuck them away until inspiration calls.

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Because the presentations focus on technique rather than finished products, the children do not imitate the guide. A watercolor lesson may begin with the science of pigments or the way water carries color across the page. Afterwards, the room fills with landscapes, swirling abstract shapes, soft portraits, constellations—each piece unmistakably belonging to its creator.

The same is true for music. Instead of starting with other people's compositions, children first explore what sound can *do*—how repeating patterns form rhythm, how silence creates tension, how a simple three-note phrase can feel joyful or sorrowful. They first *compose* and express, and only then learn to read the music of others. As in language, writing (expressing one's own thoughts) comes before reading (accessing the thoughts of others).

An Environment of Inspiration and Order

Expression thrives where beauty and order support the mind. In Montessori classrooms, materials are arranged with intention: paints sorted by hue, papers stored by texture, instruments ready for hands to try, threads and needles waiting in small baskets. An environment like this communicates a message: *Your ideas matter here. Your creations have a place.*

The classroom is also alive with storytelling—cosmic tales, history stories, scientific discoveries, cultural narratives. Each story becomes a spark. A child who hears about ancient cave art may begin mixing natural pigments to create their own mural. A lesson on early agriculture may inspire another to weave small baskets or build a miniature granary. Expression grows when the imagination is fed with wonder.

The Inner Freedom to Create

Freedom, skill, and inspiration prepare the soil—but the seed of expression rests within the child's spirit. For expression to emerge, the child must feel safe. Not safe from physical harm, but from judgment. If every piece of work is corrected, evaluated, or praised too intensely, the child learns to create for approval rather than for truth. In the beginning, many children still seek validation—"Do you like my picture?"—but with time, reflection, and gentle redirection, they discover something more precious: the quiet satisfaction of their own inner approval.

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Expression should never be performance-driven. Its value lies in the act itself. Sometimes a child draws not to display a picture but to process a feeling. Sometimes they write a poem to understand an idea. Sometimes they spend days weaving a bag, not because the bag is needed, but because the process soothes the soul. These moments matter. They are acts of integration, healing, and growth.

Many Doors Into Expression

In a Montessori community, expression never sits in a single corner—it is offered through many doors. One child finds their voice through drama, reenacting a myth with classmates. Another becomes captivated by geometric art, exploring how circles evolve into mandalas. Another discovers weaving or ceramics as their preferred medium. Some use storytelling, movement, mathematics, or quiet observation.

We offer visual, verbal, musical, mathematical, physical, and social forms of expression because we do not know which doorway the child's inner voice will choose. The more pathways available, the more children find their own authentic route.

Expression Rooted in Cultural Awareness

Expression does not grow in a vacuum. Cultural stories, history charts, and keys to understanding civilization become the child's palette. Through these lessons, children encounter how different cultures met the same universal human needs—and how creativity shaped each response.

History cards showing the evolution of lighting, from fire to lanterns to electricity, reveal ingenuity across centuries. Fundamental Needs Charts show that clothing, shelter, transportation, education, and worship vary beautifully across time and place—yet arise from the same inner drives.

When children explore these patterns, they begin to see culture not as decoration or trivia but as the living expression of humanity's tendencies: our need to belong, to create, to understand. This recognition deepens their own expression. Their work begins to reflect gratitude, curiosity, and connection with the wider human story.

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The Child as Creator, Not Performer

Montessori guides do not create artists. We create the *conditions* in which artists emerge. We do not produce musicians, poets, scientists, or inventors. We offer keys, tools, and freedom—and the children shape themselves through their work.

Expression spills into every subject: a geometric theorem illustrated with art, a geology story turned into a diorama, a cultural study transformed into a song. Children collaborate, discuss, question, revise. They express themselves socially as much as artistically, weaving ideas together in community.

The World as Their Workshop

Ultimately, expression comes alive most fully when the world becomes part of the child's workshop. The second-plane child longs to explore beyond the classroom—to visit museums, attend concerts, meet artisans, interview experts, and walk through history with their own feet. Through these experiences, their imagination grows roots in reality. Their hearts open to empathy, and their identities are shaped by a sense of belonging to a vast, interconnected world.

Where Knowledge Meets Imagination, and Expression Meets Identity

When all these conditions come together—freedom, skill, beauty, storytelling, cultural keys, and real experiences—expression becomes more than a school activity. It becomes the child's way of making sense of themselves and their place in the universe.

In this sacred dance between knowledge and imagination, the child's identity slowly unfolds. They become creators of meaning, keepers of culture, and contributors to the human story. Their expression becomes a pathway toward belonging, empathy, and peace.

And so, in Montessori, we nurture not just learners, but whole, vibrant souls—ready to step into the world with clarity, curiosity, and a boundless sense of possibility.

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How Cultural awareness and expression is visible in Montessori Elementary classroom?	
Essential knowledge	
Local, national, European and global cultures and expressions, including their languages, heritage and traditions, and cultural works of art	Children explore cultural works through classroom materials, cultural folders, Big Work projects, museum visits, and storytelling. They learn about music, art, architecture, rituals, traditions and languages from different times and places.
How these cultural expressions can influence the ideas of the individual and others	Children observe and discuss how different cultures solve same fundamental needs—food, shelter, art, and spiritual expression—and reflect on how these ideas inspire innovation, problem-solving, or personal creativity. They discuss how one culture's art or invention can influence another, connecting historical ideas to modern applications.
The different ways of communicating ideas between creator, participant and audience within written, printed and digital texts, theatre, film, dance, games, art and design, music rituals, and architecture, as well as hybrid forms	Children create presentations, posters, short films, songs, or performances to share their understanding of cultural topics. They explore how different media—text, music, art, drama—convey meaning and evoke emotions, learning to adapt their own communication to audience and context.
Their own developing identity within a world of cultural diversity	Through projects, timelines, and discussions, children recognize universal human tendencies and needs and see themselves as part of a larger human story. They connect their personal experiences with the histories and customs of other peoples, fostering empathy and self-awareness.
The role of arts and culture as a way to both view and shape the world	Children see how culture reflects human needs, values, and imagination. They learn that art, architecture, music, and traditions can influence society, express ideas, and inspire change, encouraging them to engage creatively and responsibly with the world.
The importance of aesthetic factors in daily life	Classrooms and activities emphasize beauty and order: calligraphy, illustrated booklets, art projects, teachers' handmade materials, and well-prepared workspaces teach children to value aesthetics as part of culture and self-expression.
Core skills	
Express and interpret figurative and abstract ideas, experiences and	Children create various products: paintings, musical compositions, dramas, or storytelling projects that communicate ideas, emotions,

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emotions with empathy in a range of arts and other cultural forms	and cultural concepts. They reflect on how different cultures express similar experiences in diverse ways.
Enjoy/ appreciate works of art	History and art materials, listening to diverse music, visits to galleries, museums, and cultural events cultivate appreciation of artistic expression across cultures and time periods.
Express themselves through different media - using/improving one´s innate capacities	Children use different techniques: drawing, painting, sculpture, ceramics, watercolor, music, movement, storytelling, and writing to express their understanding of culture and identity, integrating knowledge and personal creativity.
Identify and realise opportunities for personal, social or commercial value through the arts and other cultural forms	Collaborative projects, classroom exhibitions, and community events allow children to share their work publicly, fostering confidence, social responsibility, and understanding of cultural impact.
Engage in creative processes, both as an individual and collectively	Children work alone or in groups on projects like murals, performances, research presentations, or various media projects, learning to plan, negotiate, and collaborate creatively.
Attitudes (students value)	
Participating in cultural experiences	Children actively engage in storytelling, “Going Out” visits, museum and gallery trips, music performances, cultural workshops, and classroom events that bring culture to life.
Diversity of cultural expression	Students explore art, music, rituals, and traditions from different cultures, learning to value difference as expressions of shared human needs and creativity.
An ethical and responsible approach to intellectual and cultural ownership	Lessons emphasize crediting sources, respecting copyright, and asking permission before using others’ work, in both everyday classroom work and their projects.
Being curious about the world and imagining new possibilities	Big Work projects, cultural investigations, and research tasks encourage children to ask questions, explore unfamiliar traditions, and envision new ways of expressing ideas.
Artistic self-expression and participation in cultural life	Children are encouraged to create, perform, and present in diverse artistic forms, integrating their cultural knowledge and personal perspective into authentic expressions.

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11 CHAPTER

PERSONAL, SOCIAL AND LEARNING TO LEARN COMPETENCE

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Personal, social and learning to learn competence

Personal, social and learning to learn competence is the ability to reflect upon oneself, effectively manage time and information, work with others in a constructive way, remain resilient and manage one's own learning and career. It includes the ability to cope with uncertainty and complexity, learn to learn, support one's physical and emotional well-being, to maintain physical and mental health, and to be able to lead a health-conscious, future-oriented life, empathize and manage conflict in an inclusive and supportive context.

Knowledge

For successful interpersonal relations and social participation, it is essential to understand the codes of conduct and rules of communication generally accepted in different societies and environments. Personal, social and learning to learn competence requires also knowledge of the components of a healthy mind, body and lifestyle. It involves knowing one's preferred learning strategies, knowing one's competence development needs and various ways to develop competences and search for the education, training and career opportunities and guidance or support available.

Skills

Skills include the ability to identify one's capacities, focus, deal with complexity, critically reflect and make decisions. This includes the ability to learn and work both collaboratively and autonomously and to organize and persevere with one's learning, evaluate and share it, seek support when appropriate and effectively manage one's career and social interactions. Individuals should be resilient and able to cope with uncertainty and stress. They should be able to communicate constructively in different environments, collaborate in teams and negotiate. This includes showing tolerance, expressing and understanding different viewpoints, as well as the ability to create confidence and feel empathy.

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Attitudes

The competence is based on a positive attitude toward one's personal, social and physical well-being and learning throughout one's life. It is based on an attitude of collaboration, assertiveness and integrity. This includes respecting diversity of others and their needs and being prepared both to overcome prejudices and to compromise. Individuals should be able to identify and set goals, motivate themselves, and develop resilience and confidence to pursue and succeed at learning throughout their lives. A problem-solving attitude supports both the learning process and the individual's ability to handle obstacles and change. It includes the desire to apply prior learning and life experiences and the curiosity to look for opportunities to learn and develop in a variety of life contexts.

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Introduction: „Help me to do it by myself “

In Montessori philosophy, fostering personal and social competence and the ability to learn can be found under the famous motto, "Help me to do it by myself." The very foundation for this motto is a well-prepared environment. Only in such an environment can children truly take responsibility for themselves, their relationships, and their learning. Thanks to this preparation, provided by adults, children can act based on their inner motivation while also taking responsibility for their actions, for themselves, and for their interactions with others.

The first prerequisite for preparing a suitable environment is a deep understanding of a child's developmental needs. The second prerequisite for success is the awareness that the child itself has the best access to information about its own feelings and experiences. In other words, the child, indirectly but better than anyone else, "knows" the most about its unmet needs. It's crucial to teach children to stay in conscious contact with their inner experiences. Even young children in a Montessori environment can often name their feelings or needs. They frequently hear the question from a guide, "What would help you right now?" This also gives them the opportunity to perceive themselves and take responsibility for themselves in small steps.

From an adult's perspective, a child is an independent, unique being and a relevant partner for conversation. The adult purposefully observes children, perceives them, and listens to their opinion, helping them stay in contact with their own inner motivation. While observing, the guide utilizes his/her insight and knowledge of psychosocial development, which allows him to consider the child's needs and, if necessary, adapt the environment. In a prepared environment of acceptance and freedom, within clear boundaries and rules, even young children can act independently, responsibly, and even genuinely kindly and considerately. It's crucial to understand that every member of the community, just like myself, has their unique needs and the exact same desire to have them fulfilled.

The feeling of one's own strength and competence to meet one's needs independently naturally leads to empathy, respect, and responsible, loving relationships within a group. When children feel competent to fulfill their needs, they perceive their power to

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influence their own lives – this is the best motivation for further growth and development. If they sense their own strength, they are eager to demonstrate their abilities and competence, face challenges, exert effort, and become active creators of their own lives. Thus, Maria Montessori's words: "The child is the maker of man," gain a deeper meaning, where the child genuinely becomes the creator of oneself – an active participant in building their own life.

It is essential to see every child as an independent being with unique needs and the unique ability to take responsibility for identifying and fulfilling them. Children receive precisely the amount of support they need – no less, no more. That's why the Montessori approach is based on an optimally prepared environment. Adults guide them and create a safe environment, but they don't take over the responsibility for children perceiving their own feelings or finding ways to meet their needs. In Montessori, we call this: "Helping children stay in contact with their inner motivation." It's important to foster in children the ability to perceive their needs and the conviction that they have the power to fulfill them.

Focusing on inner motivation in education and upbringing is key to children developing a sense of competence. This allows them to perceive their experiences, feelings, and needs, to articulate them, and to find ways to fulfill them. From an early age, children are thus guided toward self-reliance, independence, and taking responsibility for themselves, their behavior, and their actions. They are guided toward responsibility for themselves, responsibility toward others, and responsibility toward the environment. Such an attitude toward oneself and others is, in essence, personal and social competence, and its consequence is also the ability to take responsibility for one's own learning. If a person is self-aware and knows they can meet their needs, they don't feel threatened by others – they believe in themselves and care about themselves just as much as they care about others. If they trust themselves, they also trust that others can take care of their needs. This is why this competence – true self-awareness – is built upon what is the deep foundation of Montessori pedagogy.

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Knowing Myself, Knowing the World: Foundations of Personal and Social Awareness

In Montessori Elementary, we often say that by the age of six we have "given the child the whole world." What does this mean? It means that a child enters the second plane of development with a mind ready to imagine, reason, and connect ideas. Our task is to offer them the *big picture*—the story of the universe, life, humanity, and the development of knowledge—so that they can begin to understand not only how the world works, but also where *they* belong in it.

This might sound ambitious. Yet this is precisely the Montessori vision for ages 6–12. And, of course, it is not achieved in a single lesson or one inspiring sentence. We begin from the very beginning—the origin of the universe—and we keep revealing connections. Layer by layer, story by story, key concept by key concept, the child builds a map of knowledge. They start to see patterns, interdependencies, and meaning.

And while they learn about the world, we help them learn about *themselves*. When a child is consistently invited to observe their feelings, choices, progress, and responsibilities, they slowly come to a deeply personal question:
"Who am I, and what is my place within the whole?"
Supporting the child in this inner work—gently, respectfully, and without pressure—is one of the central aims of the Montessori prepared environment.

In Montessori education, the child's personality is not built through direct instruction, but through carefully prepared environments and indirect guidance. We select materials, design routines, and cultivate a community atmosphere that invites reflection, independence, collaboration, and self-awareness. Knowledge is always presented together with an attitude—our curiosity, our wonder, our respect for truth. Children feel this. They copy it. They make it their own.

In this way, the adult becomes not just a presenter of information but a model of how to approach learning and life: with care, humility, and joy. When we adults see the world

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as an interconnected order, where every person has a meaningful role, this worldview is quietly passed on to the child—lesson by lesson, conversation by conversation, moment by moment.

For children ages 6–12, education is never just about *what* they know. It is equally about *how* they relate to that knowledge—how they see themselves, their peers, their community, and the larger world. The Montessori approach supports them in developing:

- **personal competence** (self-knowledge, emotional awareness, independence),
- **social competence** (collaboration, empathy, responsibility to the group), and
- **learning-to-learn competence** (metacognition, curiosity, and the ability to plan, reflect, and refine their own learning).

Montessori is uniquely suited to building these EU key competencies because knowledge is always offered in context and always tied to a lived attitude. The result is a learning experience where the child not only acquires information but also develops the inner tools—personal, social, and cognitive—to navigate life with confidence, awareness, and a strong sense of belonging to the world.

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Story from the classroom

Exploring Cultures

In the Montessori Elementary classroom, children begin their exploration of humanity with a simple yet powerful image: the ***Basic Human Needs chart****. Sitting together around this drawing, they quickly discover something profound—that every person who has ever lived, no matter where or when, has shared the same essential needs for food, shelter, protection, belonging, and meaning. This realization becomes their doorway into cultural understanding.*

As the year unfolds, the children are introduced to the ***History Question Charts****, and their curiosity deepens. They begin to wonder:* How did people in ancient times build their homes? What tools did they invent? How did they live together? What did they believe? *Each chart opens up another layer of inquiry, guiding the child to compare how different societies met the same universal needs in wonderfully diverse ways.*

From the very first days in the Elementary community, children show a natural fascination with human stories—those close to them and those from distant times and places. Again and again, they return to the same foundation: that ***all humans share the same needs****, and that cultures are simply the many creative strategies people have developed to meet them.*

Through these lessons, children observe both successful and unsuccessful attempts at meeting human needs. They study inventions that changed how people lived, and they explore the social structures that helped communities thrive—or sometimes struggle.

We present all of this with a deliberate attitude: we show human beings as imaginative and capable, as problem-solvers who shape their world with intelligence, effort, and cooperation. We also show humanity as deeply relational—capable of kindness, beauty, and love.

In this way, the child begins to understand culture not as something distant or abstract, but as a reflection of human choices, creativity, and values. And quietly, almost invisibly, this work builds something essential in the child:
a sense of personal agency and confidence in their own ability to contribute to the world.

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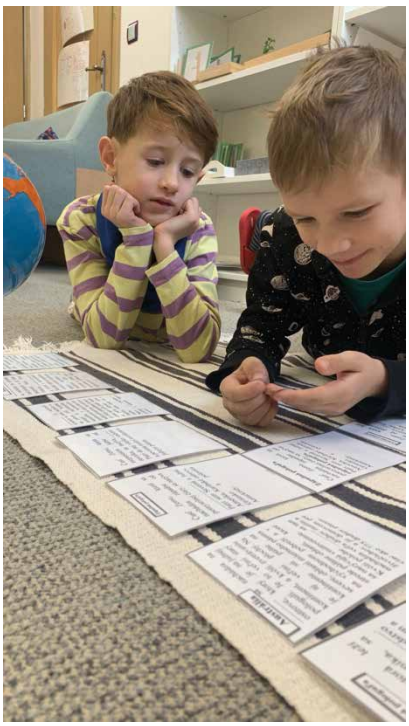
Story from the classroom

Presenting the Human Being



In the Montessori Elementary classroom, children are invited early on to meet the human being—not only as a figure from history, but as a being gifted with ***intelligence (mind)****,* ***skil (hand)I****, and* ***the capacity to love (heart)****. These three gifts become the foundation for all further historical exploration. As the children move through timelines, stories, and research, they begin to see history as the unfolding story of how humans have used these gifts to shape their world.*

This perspective subtly weaves together personal and social development with the process of learning itself. When children observe how past generations solved problems, created tools, built communities, and cared for one another, they start to understand that these same capacities live within themselves. Personal competence, social awareness, and the ability to learn become inseparable from their understanding of what it means to be human.

The adult's role is patient and respectful. We do not tell the child what to think or who to be. Instead, we wait for the quiet moment when the child begins to recognize that this grand story—this story of human potential—is also their *story. Such awareness cannot be forced or imposed. It must arise naturally from within the child's own experience.*

The confidence to trust oneself, to believe in others, and to act cooperatively grows out of daily life in the Montessori community. Through meaningful work, collaboration, and shared responsibility, children gradually build an inner conviction:
I, too, possess these human gifts. I, too, am capable of shaping my life and contributing to the world.

This is the essence of presenting the human being in Montessori education—a lesson that nourishes not only the mind, but the child's emerging identity and sense of purpose.

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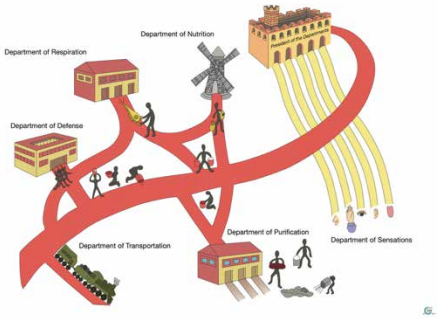
Story from the classroom

The Story of the Great River



In biology, one of the most meaningful stories we share with children is the tale of a great river. At first, the child does not realize that this story is about their own body. This is intentional—Montessori education often takes an indirect path, inviting attitudes and insights to grow naturally from within.

The story begins in a vibrant land where a mighty river flows. Along its banks live countless inhabitants, each one working tirelessly for the good of the whole community. Their needs are always met because the river brings everything required for life. In return, every inhabitant contributes by doing exactly what they were created to do—nothing more, nothing less. Each performs their own unique task with dedication, and because of this perfect cooperation, the entire land thrives.

Only later does the narrative reveal that the "command center" is the brain, the "ministries" are the body systems, and the countless diligent inhabitants are the cells that make life possible. As the connection becomes clear, children begin to develop a deep appreciation for this remarkable harmony inside themselves. They see how every cell works with purpose, and how the health of the whole depends on the contribution of each part.

By the end of the story, a gentle inner question is planted:
"How can I help?"

Children come to understand that their choices—how they move, breathe, eat, rest, and relate to others—either support or hinder this beautiful internal cooperation. They begin to see themselves not as passive passengers but as responsible caretakers of their own well-being.

Through this narrative, children discover a powerful truth:
They are capable of influencing their own lives.
Their actions matter, their choices shape their health, and they possess the competence to care for the remarkable "land" within them.

This story becomes a foundation for personal responsibility, self-awareness, and respect for the wonder of the human body—a quiet but profound step in their journey of learning to learn and becoming stewards of themselves.

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Tools for Life: Developing Skills to Navigate Self and Society

In a Montessori Elementary classroom, children learn far more than academic knowledge—they learn how to navigate themselves, their relationships, and the world around them. The environment itself becomes a living community in which personal growth, social responsibility, and independent learning develop naturally each day.

A hallmark of the 6–12 environment is its mixed-age structure: a vibrant group of children who differ in age, personality, interests, and stages of development. This diversity is intentional. It creates a dynamic social ecosystem where everyone has a place and a purpose. Younger children observe the possibilities that lie ahead, while older students practice leadership, mentorship, and kindness. Together, they learn that a community thrives when everyone contributes in their own way.

The prepared environment supports this balance. Materials are always available on open shelves, allowing children to access knowledge independently instead of waiting for an adult to deliver it. Because of this, the teacher's role shifts from "keeper of information" to guide, observer, and supporter. Freed from the need to lead the entire group through the same lesson at the same time, the adult can focus on what truly matters: connecting each child with meaningful work, adjusting the environment when needed, and offering support at just the right moment.

In such a community, children grow into roles that reflect both their strengths and their developing skills. They learn to help one another spontaneously—not because they are told to, but because it is the natural rhythm of the classroom. They collaborate on projects, teach and learn from one another, negotiate responsibilities, and practice empathy during everyday interactions. A child who needs extra support finds it not only in the adult, but also in peers. A child with advanced skills discovers how meaningful it is to share knowledge generously.

This structure gives children real responsibility for their learning. They make choices, plan their work, reflect on their progress, and adjust when needed. The adult does not take this responsibility away but instead trusts the child's inner motivation and

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competence. In this trust, personal and social skills grow organically: self-awareness, self-regulation, teamwork, problem-solving, perseverance, and the confidence to take initiative.

Ultimately, the classroom becomes a community where learning is not something done *to* the child, but something lived *with* others. Through freedom, responsibility, and thoughtful adult guidance, children acquire the essential tools to understand themselves, contribute to their community, and navigate the wider world with confidence and compassion.

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Story from the classroom

Recording daily activities and managing one's own work

In a Montessori Elementary classroom, each child keeps a journal—a personal record of their daily learning, discoveries, and reflections. These journals are not meant for the adult to check or evaluate, but for the child themselves. They are tools of self-awareness, helping children observe their own choices, reflect on their decisions, and see how their actions lead to results.

From the very first day, children begin building their own portfolios—collections of notes, drawings, research findings, and observations. Each portfolio becomes a personal map of understanding: a place where the child captures what they have learned, what questions they still have, and how they are developing their skills. In this process, children gradually gain insight into their own capabilities and the consequences of their decisions.

The beauty of this approach lies in responsibility. Children set their own goals, plan their work, and decide how to record it. The adult never takes this responsibility from them, but instead ensures the environment is rich with materials, guidance, and opportunities for exploration. The adult's role is to support, observe, and present knowledge—but always with respect for the child's autonomy.

Through journaling, children learn that knowledge is theirs to acquire for themselves. They practice turning decisions into actions and develop the confidence to manage their own learning. When they reflect on successes and challenges, they begin to understand that their progress depends on their effort and choices.

In this way, Montessori children do not simply follow instructions—they become architects of their own learning. They discover the art of self-organization, the satisfaction of achieving goals, and the independence of knowing that their growth is in their own hands. Journals and portfolios are not just records—they are mirrors of the child's journey, capturing both the knowledge they build and the habits of mind they are cultivating for life.

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Story from the classroom

Teacher – child conferences

In the Montessori classroom, meaningful conversations between the child and the guiding adult are woven naturally into the rhythm of daily life. These exchanges happen on multiple levels. During the work itself, the adult offers gentle, immediate feedback—subtle guidance that helps the child refine a skill, clarify understanding, or explore a new approach.

Beyond these day-to-day moments, periodic reflective conversations provide deeper support. Once every few weeks, the child and adult may sit together to review progress, discuss challenges, and consider next steps. These conversations are not evaluations in the traditional sense; they are opportunities for reflection, self-discovery, and guidance.

At longer intervals—perhaps at the end of a semester or school year—an overall conversation helps the child see the arc of their own growth, the skills they have developed, and the insights they have gained. Yet at every stage, the child never reports to the adult as though they are accountable to them. Responsibility for learning remains firmly in the child's hands.

The adult's role is that of a coach, a mirror, and a guide. Through careful observation, encouragement, and thoughtful dialogue, the adult models respect for learning and confidence in the child's ability to grow. Their belief in the child's competence is contagious, quietly shaping the child's own confidence and self-direction.

In these conversations, the child learns to reflect, to set goals, and to make choices with intention. They discover that learning is not about performing for someone else—it is a personal journey. The guidance of the adult helps them navigate this journey, supporting their development of independence, self-management, and lifelong learning skills.

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Story from the classroom

Working with error

In the Montessori classroom, a mistake is never a failure—it is simply part of learning. Every material, every activity, carries within it a built-in way for the child to discover their own errors. Sometimes it is a control chart, sometimes the design of the material itself reveals the outcome when something is out of place, sometimes is their critical thinking.

The teacher trusts the child to use these tools. There is no rush to correct them, no fear of them consulting the "answer key." Instead, the child is invited to explore, test, and reflect. This freedom teaches an essential attitude: mistakes are natural, expected, and even joyful.

Children learn to approach challenges with curiosity rather than fear. They test their knowledge, adjust their actions, and see the immediate results of their decisions. Over time, this builds resilience, confidence, and independence.

In this environment, the error becomes a teacher. The child learns to observe, correct, and improve. They discover that mastery is a process, not an instant achievement, and that learning itself is the reward.

Mistakes are not obstacles—they are invitations to grow. And with each one, the child's confidence and love of learning quietly flourish.

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Becoming a Learner of Life: Fostering Respect, Responsibility, and Self-Confidence

If we had to choose one guiding principle for all the knowledge, skills, and attitudes we cultivate in Montessori Elementary classrooms, it would be helping a child develop a positive attitude toward themselves—the foundation of self-respect, responsibility, and confidence. When a child learns to value their own personal, social, and emotional well-being, it naturally sparks motivation to explore, create, and learn. From this inner spark grows not only competence in navigating life, but also genuine personal, emotional, and cognitive growth.

Building this positive attitude is both the greatest opportunity and the greatest challenge for an educator. It cannot be handed to a child through words or praise alone—it must emerge from their own experience. The secret lies in leaving responsibility where it belongs: in the hands of the child. Our role is to prepare the environment, offer guidance, and provide opportunities, while allowing children to take ownership of their learning and actions.

The first risk we face as adults is taking over responsibility for the child's happiness or success. When we intervene too much, we unintentionally send the message: "You are not strong enough to handle this." This can create a sense of helplessness, frustration, and dependency. Montessori education invites us instead to offer challenges that are real, meaningful, and manageable, allowing children to test their strength, overcome obstacles, and experience success for themselves. In doing so, they build a deep awareness of their own competence and power over their life.

The second risk is relying on empty praise. Telling a child they are special or talented does little if it is not grounded in lived experience. A true sense of self-worth grows

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from action, discovery, and mastery. In a Montessori classroom, we nurture this through careful preparation of the environment and thoughtful guidance. Children fall in love with their own abilities first, then with the world around them—the order of nature, the connections between things, the roles humans play in society. Over time, these experiences create a deep, internal sense of value and competence. By the time a child consciously asks, “Who am I? What is my role in the world?” they already carry a foundation built through years of indirect guidance, exploration, and reflection.

Ultimately, the child’s development depends on the attitudes of the adults around them. Respect, curiosity, and confidence that we model in our own lives are absorbed by children in the subtle rhythms of daily life. When we show them how to value themselves, respect others, and approach the world with care and responsibility, children naturally grow into learners of life—capable, self-aware, and ready to contribute meaningfully to their communities and beyond.

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Story from the classroom

Freedom of Choice in Work, Place, Group, or Partner

In the Montessori classroom, freedom is not about doing whatever a child wants—it is about giving them the chance to make meaningful choices and learn to manage the consequences. Each day, children can choose their own work, decide where they want to work, select a partner or group, and even decide how long to spend on a task. Every decision carries responsibility, and it is through these choices that children begin to understand themselves, their needs, and their capacities.

Sometimes a child is ready for full freedom: they move independently from one activity to another, select their own materials, and work with peers who share similar goals. Other times, a child needs guidance. Perhaps they are offered only two options for a task, or the adult helps them structure their time so that the work becomes manageable. In every case, the child is given only the freedom they are capable of handling, always balancing choice with responsibility.

As children grow in self-organization, they learn to observe their own abilities and limits. They notice which tasks hold their attention, how long they can focus, and how collaboration affects their work. The adult's role is not to control but to support—providing guidance when needed, stepping back when the child is ready, and helping them reflect on the outcomes of their decisions.

Over time, this careful balance of freedom and responsibility nurtures independence, self-discipline, and confidence. Children discover that their choices matter, that they are capable of managing themselves, and that they can contribute meaningfully to the life of the classroom. In this way, freedom becomes not just a privilege, but a tool for growing self-awareness, responsibility, and the ability to organize one's own learning and life.

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Story from the classroom

Uninterrupted Working Cycle

In a Montessori classroom, one of the most powerful gifts we give children is time—the freedom to immerse themselves in work without interruption, without a strict timetable telling them when to stop or move on. This is what we call "uninterrupted working cycle" and it is the foundation for deep concentration, self-motivation, and genuine personal growth.

When a child chooses a task that resonates with their curiosity or interest, they enter a state of focused engagement. Even young children, when trusted to follow their inner drive, can sustain attention for remarkable periods of time. They carefully manipulate materials, observe outcomes, refine their approach, and return again and again to perfect a skill or explore an idea. This sustained effort is not imposed; it comes naturally from the child's own desire to understand, create, or achieve.

During these moments of concentrated work, children experience satisfaction and pride—not because someone praised them, but because they see their own growth. They recognize the results of their effort, the mastery of a new skill, or the solution to a problem they have solved independently. This self-recognition fuels their inner motivation, reinforces their confidence, and nurtures both personal and social competence. They learn patience, persistence, and the joy of accomplishing something through their own initiative.

In contrast, a rigid schedule that interrupts their flow can disrupt this delicate process. When children are constantly told to stop, shift, or hurry, they are prevented from fully engaging with their own learning. Pressure replaces curiosity, and frustration can arise from the inability to work at a pace that suits their individual rhythm. True learning, however, grows from freedom—

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the freedom to follow one's own interest, to linger, to explore, and to make mistakes along the way.

Free work also cultivates a deeper understanding of time and responsibility. Children learn to estimate how long a task might take, how to manage materials, and how to balance different activities across the day. They develop self-discipline organically, not through external enforcement, but through the natural consequences of managing their own work.

By allowing this freedom, the classroom becomes a place where children can experience the joy of mastery, the satisfaction of achievement, and the confidence of knowing they can direct their own learning. Concentration becomes not only a skill but a doorway to self-discovery, independence, and the pleasure of building one's own competence. In the Montessori elementary environment, free work is not just an activity—it is a vital pathway to cultivating capable, thoughtful, and motivated learners who carry their inner drive and confidence into every part of life.

Story from the classroom

Presentations go Hand in Hand with Attitudes Skill-Building

In a Montessori classroom, the way a material is introduced is far more than a simple demonstration—it is a subtle, powerful way to cultivate knowledge, skills, and attitudes simultaneously. Each prepared material is designed for independent exploration, allowing the teacher to step aside from traditional "lecturing" and instead focus on guiding the child's connection to the work.

The true strength of the presentation lies in the teacher's ability to convey their own attitude toward the material. Enthusiasm, curiosity, and respect for the subject are quietly communicated as the teacher demonstrates, planting the seeds of appreciation and interest in the child. Once the child begins hands-on work, they don't just absorb information—they develop practical skills, apply their understanding, and internalize attitudes toward learning, all at once. This holistic approach naturally builds personal and social competence, as well as the ability to learn independently.

In a 6-12 classroom, presentations typically happen in small groups of two to five children, with three being optimal. The teacher begins by connecting to what the child already knows, a

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gentle reminder of the familiar before introducing the new. From there, the teacher offers a concise, clear demonstration, highlighting the essence of the material and how it can be used. This step is always grounded in context, showing the child not only how the material works, but why it matters.

The conclusion of the presentation is just as important as the demonstration itself. Together, teacher and child explore the material's relevance: What can this help the child understand? How might they use it creatively or practically? What further questions arise, and what paths of exploration might follow? The child is invited to make decisions, experiment, and take ownership of their work, building confidence alongside competence.

Through this careful balance of guidance and freedom, each material becomes a doorway—not only to knowledge, but to the development of skills and attitudes that empower the child to navigate learning, life, and relationships with curiosity, responsibility, and joy.

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How Personal, social and learning to learn competence is visible in Montessori Elementary classroom?	
Essential knowledge	
The components of a healthy mind, body and lifestyle	Children learn about their bodies through stories like *The Story of the Great River*, exploring nutrition, exercise, and habits that support well-being. Daily routines and self-care tasks help them develop awareness of their physical, emotional, and mental health.
Codes of conduct and rules of communication for social participation	Through Grace and Courtesy lessons, group projects, peer collaboration, and teacher-child conferences, children learn respectful communication, turn-taking, and constructive interaction.
Inclusion and equality	Multi-age classrooms and heterogeneous group work foster understanding that each child has unique strengths and responsibilities. All children are encouraged to participate and contribute according to their abilities.
The learning process and learning strategies	Children maintain journals, portfolios, and project records, reflecting on their own learning, strategies, and progress, building meta-cognition and self-directed learning.
Their own competence development needs and various ways to develop competences	Freedom of choice in work, materials, and groups allows children to recognize their interests, strengths, and areas for growth. Teachers guide children to select work that develops skills and attitudes.
How to search for the education, training and career opportunities and guidance or support available	Teachers model research and exploration strategies during Going Out experiences, cultural studies, and Big Work projects, showing how to identify resources, gather information, and seek mentorship.
Management of time and information	Uninterrupted work periods and self-organized projects teach children to plan, pace, and prioritize their own work. Journals and portfolios help track progress.
Motivation, confidence and self-discipline	Children experience natural consequences for their choices, receive regular supportive feedback during conferences, and learn to persevere through challenges, building intrinsic motivation and self-regulation.
Core skills	

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Identify their own capacities, focus and set goals	Children set personal goals for projects, journal reflections, and Big Work tasks, evaluating their own progress and adjusting strategies.
Motivate themselves	Freedom to select work aligned with interests encourages intrinsic motivation; successful completion of tasks builds internal drive.
Deal with complexity	Multi-step projects, research on human history, and integrated Cosmic Education activities challenge children to analyze, synthesize, and problem-solve.
Critically reflect and make decisions	Journals, portfolios, and teacher-child conferences provide opportunities for self-reflection and conscious decision-making about learning.
Learn and work autonomously and collaboratively	Individual projects, peer mentoring, and small group work encourage independence while teaching cooperation and teamwork.
Organise and persevere with their own learning, and evaluate and share it	Portfolios, Big Work presentations, and project planning help children develop persistence, organization, and reflection skills.
Self-assess	Regular reflection in journals and teacher conferences enables children to evaluate their progress honestly.
Develop resilience and confidence to pursue and succeed at learning throughout their lives	Working with errors, problem-solving tasks, and long-term projects teach children that mistakes are part of learning and that persistence leads to mastery.
Seek support when appropriate and effectively manage their learning, their career and their social interactions	Children are guided to ask for help when needed, consult peers, and seek guidance from teachers without losing ownership of their learning.
Cope with uncertainty and stress	Work period, extended focus periods, and collaborative problem-solving support children in handling uncertainty, ambiguity, and complex tasks.
Communicate constructively and collaborate in teams	Classroom projects, presentations, and collaborative research cultivate teamwork, discussion skills, and constructive dialogue.
Negotiate effectively and express and understand different viewpoints	Multi-age groups and cooperative projects provide natural situations for negotiating roles, respecting others' ideas, and finding compromise.
Empathise with others, show tolerance and create confidence	Daily community interactions, cooperative work, and exposure to diverse cultures through Cosmic Education foster empathy, understanding, and social awareness.

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Attitudes (students value)	
Looking after their personal, social and physical well-being	Daily routines, self-care tasks, reflection exercises, and project work reinforce responsibility for their own well-being.
Learning and working collaboratively	Multi-age group projects, cooperative research, and peer mentoring promote collaboration and shared responsibility.
Problem solving	Integrated projects, Big Work, and independent research require children to identify challenges, plan strategies, and test solutions.
Being assertive	Freedom of choice, self-directed work, and reflective conferences encourage children to express their needs and opinions confidently.
Integrity	Students learn to take responsibility for their choices, complete tasks honestly, and respect community rules.
Intercultural awareness and communication	Cultural studies, history projects, music, art, and Cosmic Education teach children to appreciate diversity and communicate respectfully across cultures
Diversity	Exposure to multiple cultures, histories, and perspectives reinforces acceptance and celebration of difference.
Showing respect to others, overcoming prejudice and compromising	Group projects, discussions, and Grace and Courtesy lessons teach children to value others' contributions and practice compromise.
Seeking opportunities to learn and develop in a variety of life contexts	Work Cycle, Going Out experiences, and project-based learning encourage curiosity, initiative, and self-directed exploration beyond the classroom.

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