APRIL 2024 MTINY PROGRAMMING

ERASNUS +



PRIMARY SCHOOL COLLODI FLORENCE

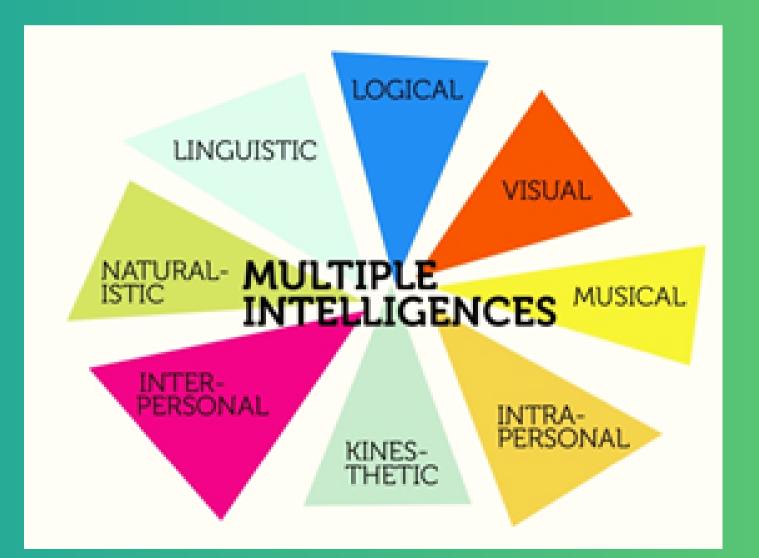


Pedagogical Approach

Early Childhood Education builds the foundation for lifelong learning, wellbeing and preparation for primary education. It focuses on the social, emotional, cognitive and physical development needs of young students. Social emotional development is one of the key development points for the early years. Positive experiences in their interactions plays a big role in a healthy social and emotional development. Makeblock Education's Early Learning utilizes the basic application of coding through play, to develop curiosity, imagination, cognitive abilities as well as promoting social and emotional development. Lessons allow for the exploration of the topic in a collaborative and communicative environment.

MULTIPLE INTELLIGENCES

by Prof. Dr. Howard Gardner Harvard University mTiny was designed with the Theory of Multiple Intelligences in mind. Logical thinking and problem-solving skills can be developed through interactive games that truly engage young children at the level and pace they are capable of.

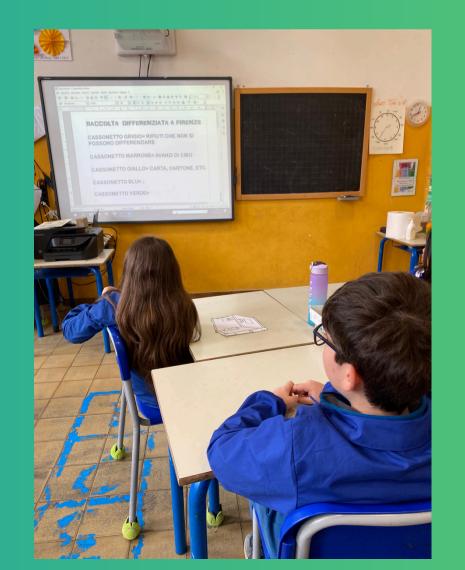


- **Early Childhood Education Robot**
- mTiny is an early education robot, with a tap pen controller, which brings computer programming into children's lives. **Coding cards and various**
- interactive-themed maps guide the child through exploration, spacial perception and creativity using highly interactive, stimulating and fun group games.
- **Tangible programming**
- Screen-free, tangible programming introduces the youngest of students to the world of programming through devicefree
- coding cards and themed maps. Students immerse themselves in programming, creating algorithms in a step-by-step process while developing their problem-solving and computational thinking skills to solve the task and reach their goal.
- Social emotional skills
- mTiny is an extremely interactive educational tool for the development of social and emotional skills, which uses its diverse personality to engage with the student through sound, motion, light and very expressive eyes.

Step:

1. Talking about Waste sorting in Florence (brainstorming)

During International Earth Day (on April 22) through a brainstorming the teachers spoke with the students about the importance of correct waste disposal in order to protect our planet. In Florence, domestic waste is collected and separated in bins of different colors based on their composition (yellow for paper, green for glass, blue for plastic, brown for organic waste, etc.)



2 MTiny Presentation

After this lesson, the teachers introduced the mTiny robot to the children. MTiny is a minirobot suitable for children and able to follow the commands they give it through a remote control that recognizes and sends the commands to the robot.

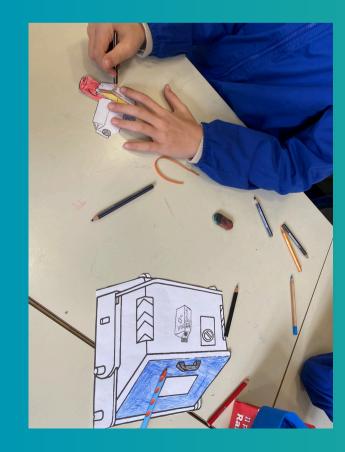
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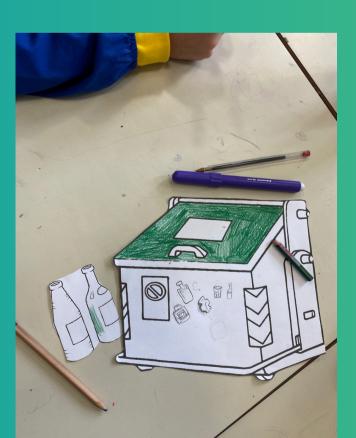


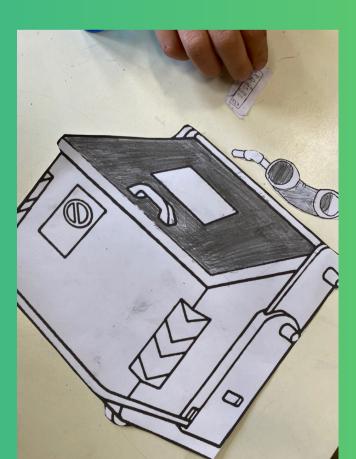


3 Learn with Mtiny: Classroom activities

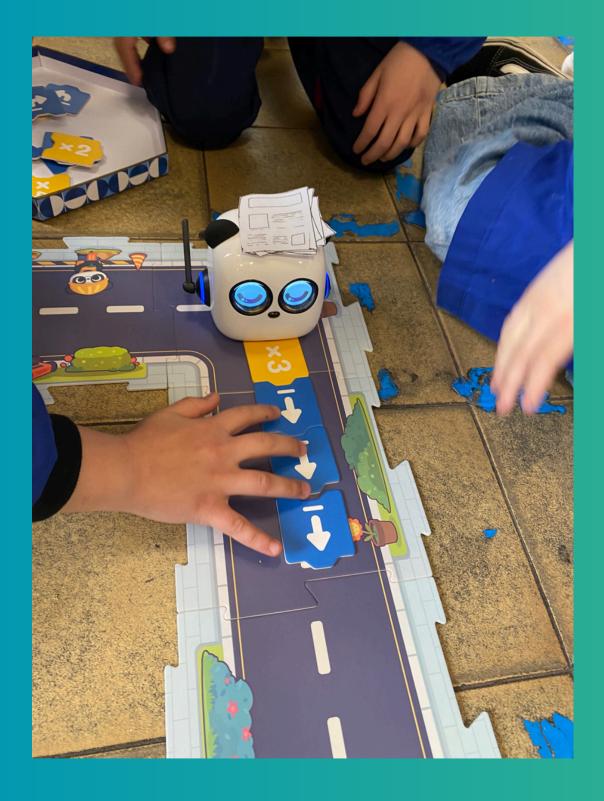
- Children worked in groups.
- Each group was given drawings of waste to dispose of in the right bin. On the classroom floor, the teachers built a map for mTiny to walk on. The drawings of the bins were located at different points on the map and the children had to guide the robot with the waste on its head to the right bin.
- The first path was created by the teachers in order to show the children how to control mTiny. Afterwards, all the children, group by group, performed the activity correctly, moving mTiny on the map thanks to the commands and until they reached the right bin.





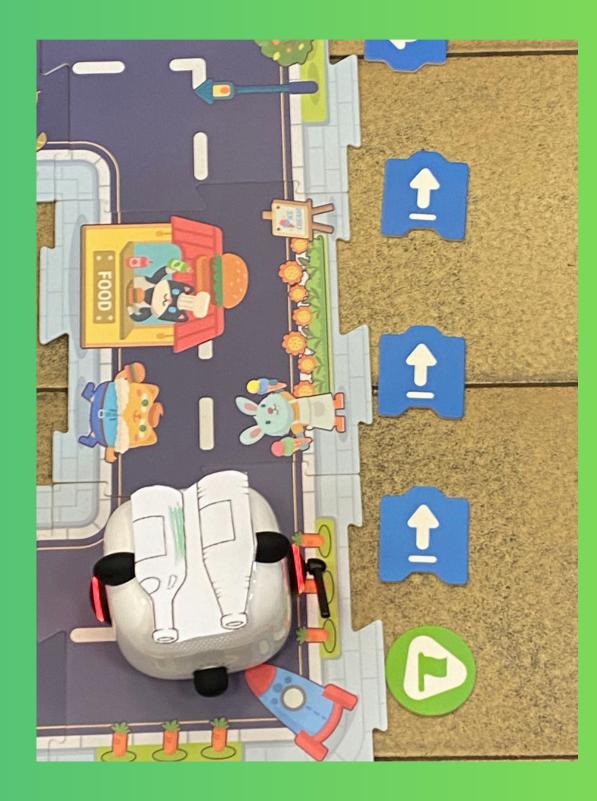






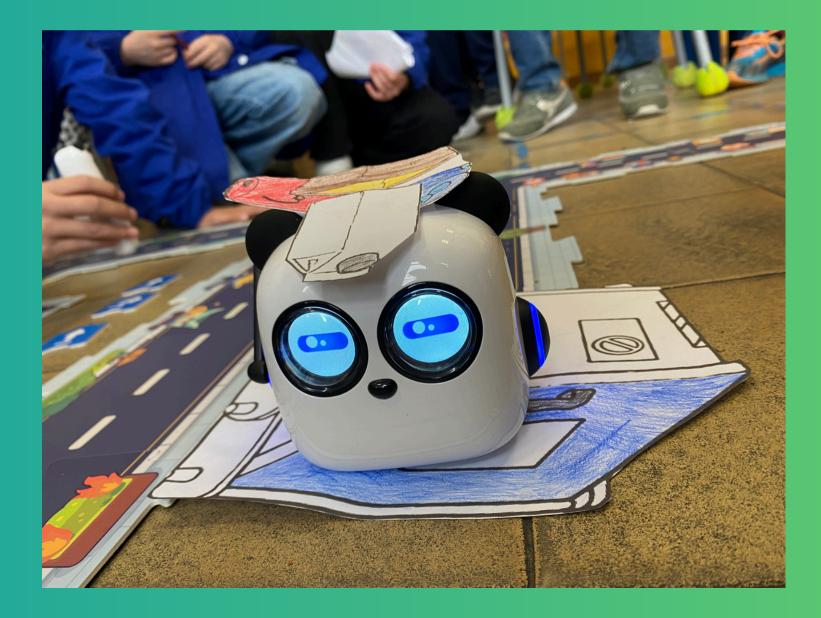






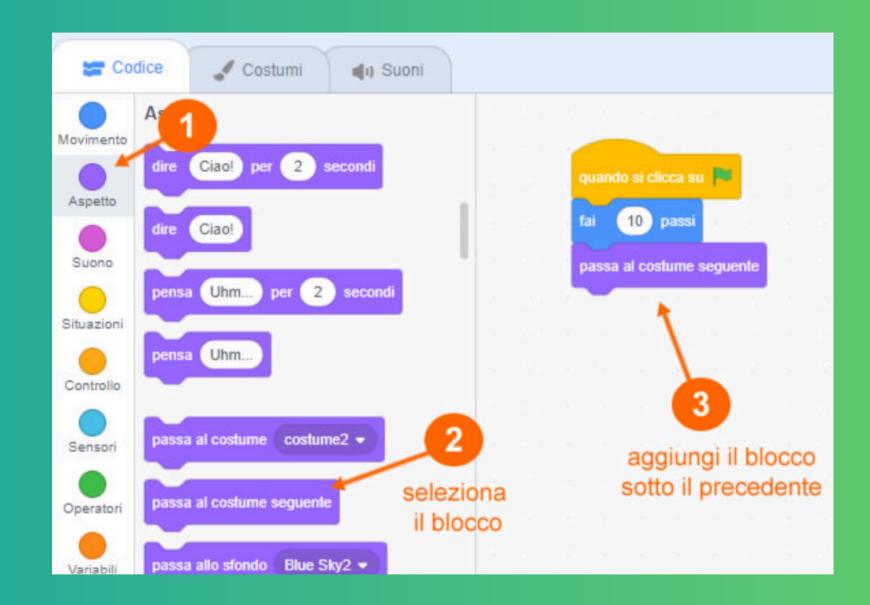


Can be used with a remote control that receives instructions...





.. or can be programmed with Scratch



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