Lesson Plan based on LTT activities in Carlentini, Italy

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| **Title**: Let’s coding together | **Subjects**: maths, technology |
| **Age:** | **Teachers’ names: Melinda Scalisi, Veronica Buda** | **Country: Italy** |
| Objectives | The motivations of this educational path arise from the objective of making the "development of computational thinking" possible, through the Code.org platform, and promoting the ability to apply the CODING operating methods across all the disciplines or problematic situations of everyday life. CODING is the most effective and funny way to develop computational thinking. It is the tool that allows us to move from an idea to a process to achieve it, a tool that helps us formulate thoughts that are directly CONSTRUCTIVE, that is to "put together" a series of fundamental steps that describe a procedure to make our own ideas or solve our problems of whatever nature. The adoption of CODING as an interdisciplinary tool favours the process of informal acquisition of the programming language that is made possible by the very nature of the techniques and tools of CODING. In particular it will be possible to allow students to use immediately the most important concepts that are the basis of CODING and computational thinking, even without having to first study them theoretically. The first approach of the pupils with the Coding were unplugged activities that the teachers proposed them in traditional classroom teaching. The students have the following prerequisites:• Perceive and communicate one's position and that of objects in physical space.• Perform routes, represent them graphically and record them.• Use simple digital learning materials.CLASSES 1A / 5DFrom the perspective of the didactic scaffolding strategy, a first-class student was assigned to each fifth-grade student (tutor). The scaffolding is applied to help and support a child during his learning process, especially when he has to perform a difficult task to complete in total independence. The tutor has not only the task of transmitting theoretical information but also of offering support on an emotional and cognitive level. The virtual class which was created on the Code.org digital platform consists of 10 students from the first class and 10 students from the fifth class. Each student has a personal account with a password. The students will carry out the activities proposed by the Course 1 of the platform working in pairs.DISCIPLINES INVOLVED1) TECHNOLOGY2) MATHEMATICSEUROPEAN KEY COMPETENCE N. 1Basic competence in mathematics and technology.Specific skills:- Recognition and solution of problems of various kinds, identifying the appropriate strategies and justifying the procedure followed.- Use of the most common technologies, identifying the potential applications.EUROPEAN KEY SKILLS No.2 Digital competenceSpecific skills: - Use of new technologies and performance of simple tasks.LIFE SKILLS1) Self-awareness 2) Emotion management 3) Stress management 4) Critical sense 5) Problem solving 6) Creativity 7) Effective communication 8) Empathy 9) Interpersonal relationship skills |
| Equipment and didactic methodologies | * Computers
* Internet
* Interactive Whiteboard
* Cooperative learning
* Peer education
* Problem solving
* Scaffolding
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| **Procedure** |
| Directions | Step 1: In the first phase the students access the Code.org platform and the virtual classroom through the credentials generated by the same platform. To make it easier for the little ones, images are chosen as passwords.Step 2: Course 1activitiesThe fundamental concepts proposed by the course are the sequence of instructions and instruction repetition. The comparison with the automatic performer, which allows to correct possible errors, requires accuracy, critical sense and creativity, since the student must necessarily think of every detail and take full responsibility for the effects that he gets. The continuous check of the correctness of the operations through the graphic output provides an immediate feed-back and the stimulus to try and try again to reach the solution.The teacher has the role of a Facilitator who, in addition to providing support and clarifications, constantly monitors the progress of the activities through the Control Panel that provides the Code.org platformStudents who are able to complete all the activities proposed by the course will receive a certificate. |