

## Lesson Plan Plastic Model

<b>School:</b> IC "Libero Andreotti"	<b>Teacher:</b> Maltagliati Orietta
<b>Title :</b> Plastic model	<b>Time :</b> 8hours
<b>Subject :</b> English, ICT, Geography, Science	
<b>Aim:</b> Learn how to create a practical-manual product through the Clil Theme of knowledge, skills; Understanding using computational thinking in following the the different phases of the Project; Create of a plastic model.	
<b>Key CS elements:</b> decomposition, pattern recognition, abstraction, practicing algorithms	
<b>Age group:</b> 7th grade 12-13 years old students	
<b>Learning situations:</b> students classroom, Art classroom, computer room.	<b>Activity type:</b> pairs/group work; cooperative learning, problem solving
<b>Resources:</b> Google Workspace, videos, whiteboard, IWB, computers, laptops, specialized articles and websites	
<b>Learning development:</b>	
<b>1.DECOMPOSITION</b> (breaking a problem down into a smaller part)	
The teacher will ask the students to:	
<ul style="list-style-type: none"><li>-looking for still life image (a tree, an animal);</li><li>- Identifying all the components that need to be drawn within a still life image;</li><li>-Break down an object to be drawn into smaller sections;</li><li>-Use the grid method to draw an image;</li></ul>	

**2. PATTERN RECOGNITION** (looking for similarity and trend within a problem)

- Application of learned shading techniques to appropriate situations.
- Creation of continuous, looping patterns (drawn patterns)
- Following a common process when creating 3D work (creating paper mache)

**3 .ABSTRACTION** (focusing on the important part of a problem, filtering out unnecessary details)

- Creating a sketch up of a drawing
- Creating a draft model prior to building the real thing
- Creating a concept design
- Drawing the elements of the plastic model

**4. ALGORITHM DESIGN** (create a step by step sequence of instruction to solve the problem)

- Application of learned shading techniques to appropriate situations;
- Creation of continuous, looping patterns (drawn patterns);
- Following a common process when creating 3D work (creating paper mache);
- Creating a sketch up of a drawing;
- Creating a draft model prior to building the real thing;
- Creating a concept design;
- Drawing the elements of the plastic modeltate snail behavior creating an obstacle courses based on different viewing moments;
- Creating a plastic model from an initial sketch.

**Assessment:** The assessment of learning can take place through the production of the students:

- .Developing of key competences: Functional alphabetical competence, Digital competence, Personal, social and learning-learning skills.
- Promoting and facilitating the socialization and the building of relationships with the peers and adults of the school in a structured, small group environment.
- Promoting positive relationships between pupils in the class through structured interactions in small groups.
- Consolidating and strengthening the learnings related to the disciplines involved for the entire class.
- Developing of key competences: functional alphabetical competence, practical and digital competence,
- Learning by doing, Peer Tutoring.
- Deduce and compare information, make conclusions; give reason.
- Learn to use technological devices and tools.
- Cooperate with peers.

**Expected results:**

- Realization of a practical-manual product (a plastic model) for Art in which the following elements are present: mountain, hill, plain, river, lake, sea for Geography; some vertebrate animals and invertebrates in a representation of plants and flowers for Science.
- Presentation of the project and sharing of the objectives and methodologies of work within the class.
- Use of the computers to search for images and information.

**Notes:** this project starts from the idea to develop students' skills in using technological devices and tools by the realization of a plastic model, in particular the basic skills: turning on, switching off and accessing to the student's account, searching for images and information on the internet as well as Improvement in communication and cooperative learning skills.