

Project PON 1.4 L

Communitary languages and Technology for the preparation of the scientific subject teachers

**SCUOLA SECONDARIA DI 1° GRADO “Giovanni XXIII”
Cava de’ Tirreni (SA)**

Programming scheme

<i>Class involved</i>	Class 2 C
<i>Teachers involved</i>	Teacher of Maths and Science - Teacher of English Language
<i>Subject chosen for on the inclusion in the programming curriculum</i>	Floatation: Coke and Coke light. The activity is connected to the learning unit: Proportionality and relation between largenesses. Specific weight. Principles of Archimedes.
<i>Times</i>	12 hours(in different times the students , will be guided through practical activities to learn floatation or not of a object in water.It depends by the relation between his weight and his volume(specific weight).
<i>Methodology</i>	<ol style="list-style-type: none"> 1) Italian entry test(verification of prequirement and/or knowledges). 2) It will be left from the sense contest: objects of common use in a full transparent water container. With the question” which objects float? the pupils will be stimulate to you to formulate several hypotheses. 3) A series of pratical activities will fallow in order to try the correctness of the formulates hypotheses. They will be put to comparison P and V(using objects of various materials) in order to reach tho concept of specific weight. 4) The experiment with two coke bottles will be introduced with two identical bottles without label dipped in a full transparent water container. The pupils, using the acquired acquaintances previously, will have to be in a position to explain that the various behaviour of the bottles, depends on the various specific weigh of the two contained liquids: one is coke lighth and the other not. 5) Final test into Italian/English to prepare with the teacher of English language <p>Discussion in class in English and Italian:comments about activity in particular about scientific words into English Language.</p>
<i>Places</i>	Class room - Laboratory
<i>Material required</i>	<ul style="list-style-type: none"> • Common objects • Transparent container • Water • Coke and Coke light 0,5 l without label
<i>Phases of activities</i>	<ul style="list-style-type: none"> • Activity of laboratory +Entry test (2 h) • Activity of laboratory with the two teachers(Maths and English) about variables that come into play in the floatation: volume – weight to get to the concept of specific weight(6h). • Preparation of the experiment with the two bottles of coke and discussion (2 h)- with the two teachers(Maths and English. • Final test (1h for the treatment and e 1h for the correction/discussion).
<i>Product of the exsperiments</i>	<ul style="list-style-type: none"> • Entry test • Programming scheme • Board diary • Board diary scheme • Laboratory scheme • Final evaluation test