ERASMUS PLUS PROJECT 2016

SCIENCE DEGREE PLAN: PHYSICS for an insight into Future

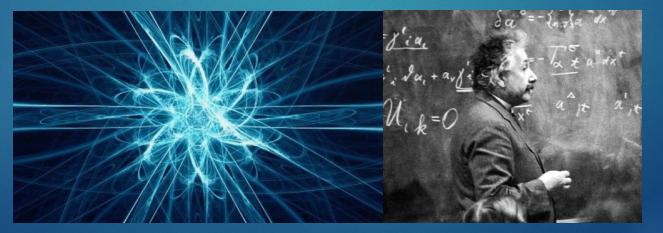


IIS LS PICCOLO OF CAPO D'ORLANDO



The excellences of LS Piccolo, between scientific research. It is and innovations:

from NEWTON's Physics to Quantum Mechanics



In March, a big group of students from the fifth year classes of IIS LS Piccolo of Capo d' Orlando took part in the 10th National Edition of Science Degree Project: Physics.

The initiative was promoted by the Headmistress Mrs Margherita Giardina, with a selection of students who showed particular interests in the scientific subjects and with the tutoring of the project referent, Antonio Smiriglia, teacher of Math and Physics. In a first phase at school, the students implemented theoretical approaches to the scientific studies. In a second phase, and in particular on the 22th of March, all the group lived a day of *Researchers* in the Lab of Physics Department of the University of Messina. As a matter of fact, they carried out various experiments concerning modern Physics.



Under the supervision of two university researchers and thanks to specific instruments made available by the University itself, it was possible to recreate the famous experiences concerning

* the photoelectric effect

* the diffraction phenomenon

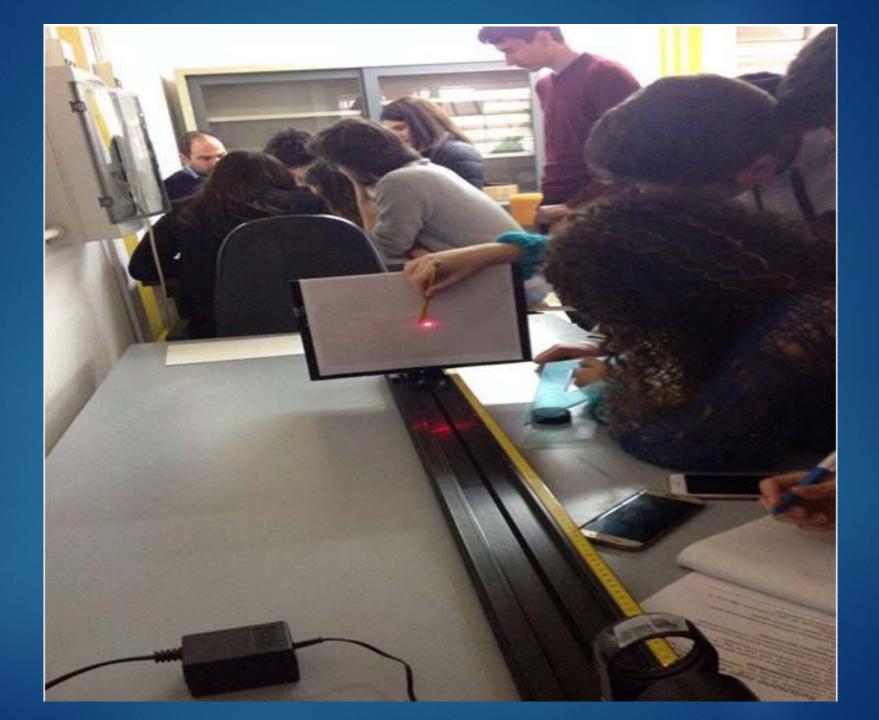
* the Frank-Hertz experiment

* the Wienn law to the black body



All the students were really motivated, curious, enthusiastic and thrilled for having personally experienced all that is normally theoretical at school and for having discovered what a different approach to Physics can be.

This experience let them deeply understand the actual and concrete potentialities of science and its daily applications to real life, thanks above all to the so called *«collateral effects»*.



A very important step was the visit to the research labs. It is there that theory becomes practice and it is there that abstraction becomes reality to be fully applied to the various

sectors of the future working world.

The students had the possibility to understand the growth of polymers realised in Physics Labs is the starting point of different subjects concerning the biomedical, biostructural, nanotechnological fields and so on...



Last but not least will be the dissemination and diffusion phase of the project. It is then that each student will make this experience deeply personal by means of a critical and rework approach and, above all, by presenting it to all the other students of IIS LS Piccolo. The Science Degree Plan was an exceptional and motivating experience for the students for many reasons...

to have much clearer ideas of what to study at university

to know that science and technology are the laboratories of life

«Physics is all that we can say about Nature» <u>Niels Bohr</u>

Project and Informative by the Math-Physics Department of IIS LS Piccolo English version and Power Point Presentation by teacher **AGLIO VALENTINA**