

Course Rationale

Everyone might think that light can only work to illuminate dim and dark places, however the concept of light goes further than getting a place brighter. This course will guide pupils through the fantastic cross over of physics and biology. Students will learn and understand the main concepts of spectroscopy, the field of physics that studies the interaction between light and matter. Furthermore, students will discuss the importance of the applications of spectroscopy to the microbiological field (the science that studies microbes) and will be able to formulate questions for possible applications on nowadays problems by working out on current situations. It will be essential to understand and analyse the background and origins of the topics to be discussed. To achieve the previous mentioned, the pupils will analyse texts and participate in challenging activities, this will strengthen their oral and verbal skills together with their motivation and self-efficacy. Since this field is completely new, students will gain the ability to analyse scientific texts and synthesize it, as a result the scholar will achieve better and efficient writing skills.

At the end, as a final assignment which will be based on an essay, the students will bring together and apply the knowledge and skills acquired throughout the course. This course is intended for any student who has a great fascination for science, who is attracted to great challenges, and who is a thirsty for knowledge.

