

# ERASMUS+ exchange at the Lycée Livet as part of the exchange with the Lycée Attilio Bertolucci

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We are delighted to share the highlights of the ERASMUS+ educational exchange which took place from April 15<sup>th</sup> to 19<sup>th</sup>, 2024 at Lycée Eugène Livet. This exchange brought together 16 Italian 10<sup>th</sup> grade pupils from the Lycée Attilio Bertolucci in Parma, accompanied by 3 teachers, with our 17 French 10<sup>th</sup> grade 9 "eTwinning -Life and Earth Sciences and Engineering Sciences-" pupils and 2 Livet teachers.

The workshops of this exchange are centered on the theme validated by the European eTwinning structure "Bringing Virtual Reality benefits in scientific experiments" for this year 2023-2024. The workshops' aim is to develop pupils' cross-curricular skills while communicating in English. The diversity of the partners is a choice that we feel is essential for enriching the pupils' learning experience.

Activities carried out during this week at Lycée Livet, which follows the mobility of French pupils to Parma, Italy in November 2023:

## 1. Welcome and icebreaking activities:

- The stay began with a welcome breakfast followed by a guided tour of the Lycée Eugène Livet.
- A treasure hunt in Nantes to discover the city, using a digital key to progress through the various stages of the game.

## 2. Scientific experiments:

- The students took part in educational experiments, such as measuring light absorbance on plants using a spectrophotometer based on an Arduino board and LEDs with color settings, soldering printed circuits with surface-mounted components (SMDs) on an ATtiny 85 microcontroller board, and programming to control SMD LEDs on a digital USB key.

## 3. Creative activities:

- Students put their creativity into practice by making DIY virtual reality headsets using laser cutting of particle boards, with a design provided by Anne de Bretagne Middle School in Orvault. These headsets are used to display and transmit the experimental content developed during the project.

## 4. Cultural discoveries:

- The exchange was also an opportunity to discover the local heritage, in particular the Machines de l'Île de Nantes and their associated galleries. The difference in school rhythms was also frequently mentioned by the participants.

## 5. Collaborative workshops:

- The Nantes FABLAB "PING - Hyperlien" offered a singular experience made possible by their innovative installation: the students made by laser cutting and coding a light device simulating the five Olympic rings in preparation for the Paris 2024 Games.
- The Maison des Hommes et des Techniques in Nantes gave students the opportunity to explore the technique of "light painting" to create artistic images.
- The Jules Verne Manufacturing Academy immersed the group of students in a series of workshops and Escape Games focusing on the challenges of Industry 4.0.