

Physics and Chemistry

5^{eme} (7th Grade) [1.5 hours per week, year-round]

Mr. Jonathan Pironet

Course Description

This course is taught in French.

The goal of this class is for students to acquire fundamental cognitive skills and knowledge in sciences: Chemistry and Physics.

Knowledge content in each part will be constructed by the students themselves as often as possible through guided document and data analysis and/or practical activities, allowing them to acquire reasoning and technical skills and develop a sense of self-efficacy, initiative and autonomy. Skills mobilised during the Sciences class are embedded in 5 domains of skills, knowledge and culture as follows:

- Practicing scientific languages (Domaine 1): oral and written expression; reading and analysing documents presented in different formats to communicate; choosing appropriate formats to represent data.
- Using tools and methods (Domaine 2): searching and obtaining relevant and reliable information from the internet; using relevant data from a database or a program to solve a scientific problem.
- Citizenship education (Domaine 3): Engaging in ethical, responsible and rational behaviors in terms of health and sustainable development; engaging in the elaboration of safety rules in the lab and on the field.
- Practicing a scientific approach (Domaine 4): formulating a scientific question; formulating hypotheses; designing an experimental protocol; collecting, analyzing and interpreting data; drawing conclusions from data.
- Making, creating, implementing (Domaine 4): choosing the appropriate tool to measure and observe; implementing a protocol.
- Representations of the world (Domaine 5): situating scientific discoveries in time; comprehending scales of space and time; distinguishing beliefs or opinions from scientific knowledge.

Timeline

Part 1 : Organization and transformation about matter / 22-25 hours (15 weeks)

Part 2 : Movement and Interaction / 6-7 hours (4 weeks)

Part 3 : Energy and its conversions / 15 hours (10 weeks)

Part 4 : Signals to observe and communicated / 7-8 hours (5 weeks)