

Physics-Chemistry

3^{eme} (9th Grade FB) [1.5 periods per week]

Mme. Emeline Alvarez

Course Description

The goal of this class is for students to acquire fundamental cognitive skills and knowledge in two experimental sciences: Physics and Chemistry. 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 mobilized during the Physics class are embedded in 5 domains of skills, knowledge and culture as follows:

- Practicing scientific languages (Domaine 1): oral and written expression; reading and analyzing 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 any source; performing measurements and observations.
- 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.
- Natural systems and technical systems (Domaine 4): formulating a scientific question; formulating hypotheses; designing an experimental protocol; performing a relevant experimental approach; interpreting a result.
- Representations of the world (Domaine 5): understanding the evolution of science and its impact in the society.

Timeline

Part 1: Organization and transformation of matter / 12 hours (8 weeks).

Part 2: Movement and interactions / 9 hours (6 weeks).

Part 3: Energy and its conversions / 9 hours (6 weeks).

Part 4: Signals to observe and communicate / 5 hours (3 weeks)