

Sciences de la Vie et de la Terre - Earth and Life Sciences

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

Mr. Julien Rivière

Course Description

The goal of this class is for students to acquire deeper cognitive skills and knowledge in Biology and Geology, to prepare them for the *Diplôme National du Brevet* (DNB) exam and for high school studies in these two subjects. Knowledge content in each part will be constructed by 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. Reflection is a key component in the learning process and will be evident throughout the program to facilitate evaluation and progress as a learner. Metacognition empowers students to distinguish between opinion, beliefs and scientific constructs and their interplay in the production of knowledge.

Skills mobilized in the SVT class are embedded in 5 domains of skills, knowledge and culture as follows:

- Practicing scientific languages (Domain 1): oral and written expression; reading and analyzing documents presented in different formats (texts, tables, graphs...); choosing appropriate formats to represent data.
- Using tools and methods (Domain 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 (Domain 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 (Domain 4): formulating a scientific question; formulating hypotheses; designing an experimental protocol; collecting, analyzing and interpreting data; drawing conclusions from data.
- Making, creating, implementing (Domain 4): choosing the appropriate tool to measure and observe; implementing a protocol.
- Representations of the world (Domain 5): situating scientific discoveries in time; comprehending scales of space and time; distinguishing beliefs or opinions from scientific knowledge.

Timeline

Part 1: Life on Earth and its Evolution / 20 hours (13 weeks).

Part 2: Human Body and Health / 22 hours (14 weeks).

Part 3: Planet Earth, the Environment and Human Actions / 10 hours (7 weeks).