

# Sciences de la Vie et de la Terre/ Earth and Life Sciences- Spécialité

1<sup>ere</sup> (11<sup>th</sup> Grade FB- Specialty) [1.5 hours per week, year-round]

Mr. Julian Riviere

## Course Description

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This course is taught in French.

The goal of this class is for students to acquire fundamental cognitive skills and knowledge in Biology and Geology and to prepare them for the baccalaureate exam and colleges studies in these two subjects.

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

- Practicing a scientific approach: formulating scientific questions; formulating hypotheses; designing and implementing strategies to solve scientific problems (experimental protocols, observations, modelizations); collecting, analyzing and interpreting data; drawing conclusions from data; distinguishing beliefs or opinions from scientific knowledge; understanding links between natural phenomenon and the mathematical language; breaking down complex observable phenomenon in fundamental elements.
- Making, creating, implementing: choosing appropriate notions, tools and techniques to explain natural phenomena scientifically; implementing a protocol.
- Practicing scientific languages: communicating results; arguing about choices; using relevant data format, digital tools and scientific languages.
- Using tools and methods: searching and obtaining relevant and reliable information from the internet; using relevant data from a database or a program to solve a scientific problem.
- Engaging in ethical, rational and responsible behaviors: identifying impacts of human activities on the environment and public health at different scales; adopting responsible behaviors in terms of environmental protection and health; engaging in the elaboration of safety rules in the lab and on the field.

## Timeline

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Part 1: Transmission, variation and expression of genetic information / 36 hours (9 weeks).

Part 2: Internal dynamic of the Earth / 34 hours (8-9 weeks)

Part 3 : Ecosystems and environmental services / 24 hours (6 weeks).

Part 4 : Human body and health / 38 hours (9-10 weeks).