## **Biology S4**

- Class hours: 1h30 per week, in English
- <u>Equipment:</u> 2 science rooms containing all the required equipment (sink, electrical equipment) and one regular room, all with computers. The maximum number of students per class is 24.
- Topics covered in S4:
  - Introduction to biology (the subject domain of biology, competing definitions of "life" and the common ancestry of all life on Earth)
  - Cells (the cell theory, cell structure and function and single-celled organisms)
  - Levels of organisation in living things (levels of organisation from chemical elements to multicellular organisms and reproduction in multicellular organisms)
  - Communication (chemical communication and nervous system)
  - Transport (absorption and uptake, transport within the organism, waste disposal)
  - Control (control of the self)

Students study the different topics by performing experiments and analysing the results, as well as carrying out small projects.

## **Biology S5**

- Class hours: 1h30 per week, in English
- <u>Equipment:</u> 2 science rooms containing all the required equipment (sink, electrical equipment) and one regular room, all with computers. The maximum number of students per class is 24.
- Topics covered in S5:
- Field trip
- Evolution (history of life on Earth and evidence for evolution, variations in populations...)
- Mendelian inheritance (a particulate model of inheritance, more complex phenotypes from monohybrid crosses)
- Chromosomal inheritance (Meiosis, sex determination)
- Molecular inheritance (DNA structure and function as codes for proteins)

Students study the different topics by performing experiments and analysing the results, as well as carrying out small projects.