

Technology and Skills

4^{eme} (8th Grade) [2 periods per week]

Mr. Anthony Menard

Course Description

The goal of this class is for students to be reflective about a technical object operating. They will improve their design knowledge with 3D design. Students will take part in group projects, which will request partnership and organization.

Knowledge content will be constructed by the students themselves as often as possible through guided document, 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 Tech and skills class are embedded in 5 domains as follows:

- Practicing appropriate languages: Describe the components and operating of an object oral and written expression; using appropriate description language; use elementary coding and algorithmic.
- Using tools and methods: explain and represent its ideas; present its technical solutions; simulate the behavior of a structure; pilot a connected system
- Citizenship education: Engage in ethical, responsible and rational behaviors in terms of health and sustainable development; engage in the elaboration of safety rules in the lab.
- Practicing a scientific approach: imagine and conceive technical solutions to a given problem and argue its choices; participate in the organization of a group project.
- Making, creating, implementing: identify a need and explain a technical problem; identify matters, energy and information flows; respect terms of reference; realize a part of an object resolving a technical problem.
- Representations of the world: identify group or family objects; identify technical evolutions.

Timeline

Due to covid-19 and the main difference between learning this material remotely or on-site, the following timeline may be readapted during this year.

1st day of school-October break: functional analysis of a technical object - part 1

October break-Thanksgiving: video game coding

Thanksgiving-End of year: end of year present (3d design and 3d printing)

New year- February break: functional analysis of a technical object - part 2

February break-Spring break: technical project group work

Spring break-Last day of school: EPI