CARING FOR THE ENVIRONMENT

CARBON FOOTPRINT: THE INVISIBLE VILLAIN
SKILLS LAB 7

OBJECTIVES-METHOD

- Slideshow Presentation (secondary education)
- Speaker Notes for presentation (secondary)
- Slideshow Presentation (primary education)
- Speaker Notes for presentation (primary)
- School Audit Worksheet
- Analyze the carbon footprint concept
- Split into groups
- Design a school audit

SKILLS

- Critical thinking
- Teamwork
- Action planning
- Systemic thinking
- Communication

LINK TO PREVIOUS ACTIVITIES

10' • REVIEW • STUDENT PRESENTATIONS
After completing their research, the students present the information on the Fridays for the Future movement. How important are social movements in helping to find solutions for the Climate Crisis?

As "solution designers for the Climate Crisis", do we understand the importance of movements and technological solutions?

WHAT IS CARBON FOOTPRINT?

15' • KNOWLEDGE RECALL • BRAINSTORMING
Let's focus on our school. What comprises the carbon footprint of our school (building and lifestyle)? What is its visible and what its hidden footprint? Let's map our ideas in the form of a "sun" or "spider" diagram.

The teacher delivers a presentation on the topic. The class then adds to and organizes the concepts mapped in the "sun" or "spider" diagram.

How familiar are students with the concepts of building and lifestyle carbon footprint at school? How familiar do they think the rest of the school community is. Discuss.

TEAMING UP: DESIGN & ACTION

5' • SELECT THE ISSUES • SPLIT INTO GROUPS
The teacher points out to the students that they will now act as designers of practical solutions to reduce the carbon footprint of the school with the help of science and technology. The teacher points out to the students that they will now act as designers of practical solutions to reduce the carbon footprint of the school with the help of science and technology. We will

45' | **PRESENTATION, PAPER ROLL, MARKERS** | **IN PLENARY & IN GROUPS**

come up with solutions which we will then present in 3D mockups, as "prototypes"[1].

Students reflect on the aspects of the school's carbon footprint they want to explore further: energy (lighting, heating, appliances), waste, food, green, building, habits, etc.) and split into respective groups of 4-5. They will be working together in those teams to conduct the school audit.

TILL NEXT TIME

Using the School Audit Worksheet, students (a) observe daily life at school, the habits and building operations that increase its visible or hidden carbon footprint and (b) design their group's logo which they print on a badge or use in their presentations.

PREPARING A SCHOOL AUDIT

15' • TEAMWORK • DESIGN

The "Climate Crisis solution designers" are now tasked with designing a short "school audit" of the building focusing on the topic (or combination of topics) they have chosen. They can use the School Audit Worksheet

They map out the route they will take on their tour of the school. What will they observe, what will they look for and capture in their notes? Will they be moving about all together or split up, taking on different roles and tasks? What are the team's rules of conduct? What constitutes responsible behavior? "All for one and one for all" means that I now represent my team and make it proud or expose it by the way I work.

One representative from each team has 2' to present the methodology of the audit.

The school audit as such will be carried out afterwards. Depending on the topic assigned to each group, it can be carried out during the breaks or during a class period, with or without the teacher's supervision.

Once they have completed their audit, a representative from each group will present their main findings in plenary.

[1] It is important for students to understand that they will now be acting as solution designers. They may even have a distinctive badge that they wear whenever they work on the project. (The term "designers" should recur throughout the project to remind students that the ultimate goal is to design a solution in the form of an object or a school operation.)