Students take action 4 the climate

CREATING & INNOVATING

SCIENCE & TECHNOLOGY: INSPIRATION FOR INNOVATION!
SKILLS LAB 5

OBJECTIVES-METHOD

- Relaxed pace - enhanced concentration
- Getting inspired from applied practices of innovative solutions for reducing carbon footprint
- DIY, crafts and models
- Presentation

SKILLS

- Teamwork
- Critical thinking
- Imagination
- Creating/crafting
- Putting theory into practice

WHAT IS INNOVATION?

10' • DISCUSSION

The teacher asks students to reflect: what is innovation? They discuss. The students are then asked to draw a picture that captures their idea of innovation. They show their picture. If they want, they can explain what they have drawn.

What do we see? Are there "light bulbs" that light up over a head? Is there a lot of technology involved?

Which person would the students choose as an example of innovative thinking? Leonardo Da Vinci, Steve Jobs, Disney, who?

Can students point to an object on their desk or in the classroom that they consider innovative?

In fact, everything is innovative! After all, innovation is a new idea that responds to people's needs and solves a problem. The pen was an innovation, as was the computer, but also fire and the wheel! Elon Musk is an innovator, but so is the early human who invented fire.

How are innovative ideas generated? Do they appear out of the blue, as a flash of genius in a brilliant mind? No. They are a product of collective intelligence and long processes. You may see the person at the end of the process, but prior to that, countless efforts have been undertaken by others.

The teacher delivers the presentation. Can students recognize these objects?

(a) Ancestor of the mouse

(b) Ancestor of the washing machine

(c) Ancestor of the telephone

All innovative ideas respond to real needs, take time to be perfected and require the input of many people. So, we are going to design innovative solutions for the problem we have identified. Even something that already

45'

VIDEO, POST ITS, SCISSORS, GLUE, MARKERS, RECYCLABLE MATERIALS

IN PLENARY & IN GROUPS

exists, is ‘old’, but is adopted and used in a new way by a community, a school, an organization, the society can be considered innovative.

INSPIRING SOLUTIONS!

10’ • VIDEO • DISCUSSION • COMPREHENSION
Topic: Waste

We watch a video (4:14 – 8:23) with Eugene Trivizas talking about innovation at a TEDex event.

The teacher begins the discussion: What resonated with the students? Do they agree that imagination is more important than knowledge? Do we need both? Do they agree that innovative solutions don’t have to be expensive or require expensive technology?

What materials were required for the invention of the vacuum cleaner and Velcro? Which problem did these two inventions address? The students are asked to recall the problem statement they developed about the school’s carbon footprint. They consult the work file (or the posts on the wall).

PUT YOUR IMAGINATION INTO PRACTICE!

25’ • WORK IN GROUPS • CRAFTING • IMAGINATION
“What you need for innovation is imagination and.... a pile of junk” says Evgenios Trivizas! The teacher hands out a box full of “junk” (recyclable packaging materials etc.) to each team.

The teams have 15’ to create a mockup of the solution to the problem statement from that junk! They have 5’ to imagine what it’s going to look like and 10’ to create it! Everything must happen fast!

Presentations. Reflection. What did we learn about innovation? (5’)

Close the session with 4’ inspiration from fairy tales, from the above video (13:42 – 17:38).