



**' Smarter...Greener...Safer...'**



## LESSON PLAN\_ONLINE WORKSHOP... 1 ITALY

### Topic: HOW TO BECOME ENERGY AMBASSADOR

**Brief description of the lesson:** In this activity, students act as power engineers by specifying the power plants to build for a community. They are given a budget, an expected power demand from the community, and different power plant options with corresponding environmental effects. They can work through this scenario as a class or on their own.

Many different types of engineering are needed to bring electric power to communities. Doing such is a technical process — how can you transform a fuel or water or wind or sunlight to electricity — as well a societal process with societal impacts — air quality, land use, water use and security. For these reasons all have roles to play in power engineering.

#### Objectives:

- Understand the word «energy»
- Understand the meaning of renewable energy
- Know the importance of renewable energy
- Create a slogan to remember how to save energy!
- Explain three R's: reduce, reuse, and recycle?
- Create some posters or some
- Learn to work in team

#### Methods and techniques:

- scientific method
  - Problem Solving
  - Brain Storming
  - Cooperative learning
  - Role play
  - Learning by doing

#### Materials and tools:

- plastic objects
- glue
- paper and cardboard
- scissors
- old toys
- colours

**SGS\_LESSON PLAN\_ONLINE WORKSHOP ...**

- geographical maps
- multimedia interactive whiteboard
- computers

**Preparation:** preparing the artistic workshop, dividing pupils into groups (team work)

**Class duration:** 2/5 lessons

**Class activities :** introductory stage; some questions to discuss ...Problem Solving and Brain Storming:

**The question is:** “What is the meaning of energy and renewable energy and its importance? A student write on the blackboard the answers and one of the team work create a poster. It’s important that students know the land, so they use a geographical maps to find natural resources. They can interview trained geologists; soil engineers; meteorologists to talk about the affected of the climate change. The idea is that the students look for a solution, they start a programme of research activities to find companies that work is a technical process - how to turn a fuel or water or wind or sunlight into electricity - as well as a social process with social impacts - air quality, land use, water use and safety. They prepare the work plan and they work in real life situation using knowledge and practical skills from different fields and subjects (multidisciplinary teaching/learning , roleplay).

**The task:** the final product will be prototypes of green energy sources to exploit wind power, sun power, water power...

### **Evaluation**

Students work in team and they are satisfied because they can use their ideas , they can decide, discuss with their friends and they product. They show a great interest; they enjoy their time working.

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