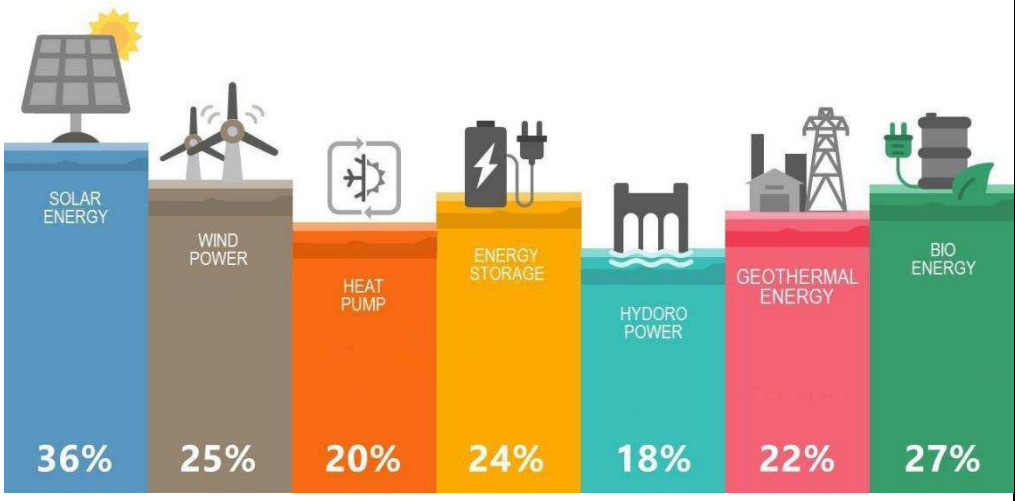
Webquest title	Green energy
Involved Subjects	Citizenship and Constitution, Sociology, Information and communications technology, English, Chemistry, Business
Timing	4h (classroom)+ 4h (homework) +2h (feedback)

Leading in Timing: 1h (classroom)	

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https://www.youtube.com/watch?v=zypPDeH_fQ4 (ITA)

https://www.youtube.com/watch?v=6UGsRcxaSAI (ENG)

Solar, wind, hydroelectric, biomass, and geothermal power can provide energy without the planet-warming effects of fossil fuels.
In any discussion about climate change, renewable energy usually tops the list of changes the world can implement to stave off the worst effects of rising temperatures. That's because renewable energy sources such as solar and wind don't emit carbon dioxide and other greenhouse gases that contribute to global warming.
Clean energy has far more to recommend it than just being "green." The growing sector creates jobs, makes electric grids more resilient, expands energy access in developing countries, and helps lower energy bills. All of those factors have contributed to a renewable energy renaissance in recent years, with wind and solar setting new records for electricity generation.

For the past 150 years or so, humans have relied heavily on coal, oil, and other fossil fuels to power everything from light bulbs to cars to factories. Fossil fuels are embedded in nearly everything we do, and as a result, the greenhouse gases released from the burning of those fuels have reached historically high levels.

As greenhouse gases trap heat in the atmosphere that would otherwise escape into space, average temperatures on the surface are rising. Global warming is one symptom of climate change, the term scientists now prefer to describe the complex shifts affecting our planet's weather and climate systems. Climate change encompasses not only rising average temperatures but also extreme weather events, shifting wildlife populations and habitats, rising seas, and a range of other impacts.

Of course, renewables—like any source of energy—have their own trade-offs and associated debates. One of them centers on the definition of renewable energy. Strictly speaking, renewable energy is just what you might think: perpetually available, or as the U.S. Energy Information Administration puts it, "virtually inexhaustible." But "renewable" doesn't necessarily mean sustainable, as opponents of corn-based ethanol or large hydropower dams often argue. It also doesn't encompass other low- or zero-emissions resources that have their own advocates, including energy efficiency and nuclear power.

https://www.nationalgeographic.com/environment/energy/reference/renewable-energy/

Assigned Task	Do you know what renewable-energies are? What kind of renewable-energies are used in your country and what is the percent? What is the amount of electricity consumed by you and by you family? You've been commissioned by the school to realize a brochure or a spot to inform and sensitize your peers about the importance of choosing renewable-energies. Identify working groups made of four students. Each group will create either a brochure or a spot to inform about the importance of choosing renewable-energies.

Process:	1. Watch with your family the documentary "Before the flood" (National Geographic) and write down your opinions/emotions. 2. Download on your mobile the app "Costo energia calcolatrice" and analyse your electricity family spending. 3.Read the indicated resources and discover what is the percent of renewable energy used in your country.

	4. You'll be divided into 4 groups. Each group will create either a brochure or a spot to inform about the importance of choosing renewable-energies. Assign the following roles among the group based on your abilities: director, interviewer, technical (of editing a movie) and secretary (logbook). 5. Document the backstage of your work.

Resources:

https://www.youtube.com/watch?v=zypPDeH_fQ4 (ITA)

https://www.youtube.com/watch?v=6UGsRcxaSAI (ENG)

https://www.nationalgeographic.com/environment/energy/reference/renewable-energy/

https://ec.europa.eu/energy/en/topics/renewable-energy

https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Renewable_energy_statistics

https://www.gse.it/documenti_site/Documenti%20GSE/Rapporti%20delle%20attivit%C3%A0/SINTESI%20RA%202018.pdf

Tools:

Smarthphone

App "Costo energia calcolatrice"
Videocamera

Premiere Adobe, I Movie

GIMP

Word

https://pixabay.com/it/

Learning Goals:

After completing the WebQuest assignment, you will:

- Know:
  - the meaning of renewable-energies
  - the tipology and percent of renewable-energies used in your country
- Be able to read an informative text regarding a specific thematic area
- Be able to read a product label
- Think of the society role in promoting the use of renewable-energies
- **Improve your level of participation in school life**

Acquired Competences	**Acquired Skills = Social Competences and Activism**	**Learnt knowledge and contents**
- Understand the concept of ecological sustainability - Understand the concept of renewable-energies - Identify behaviours that may reduce the energy consumption - Become an eco-sustainability influencer - Able to select products in order to become a conscious consumer	- Able to identify wrong consumer behaviours related to the environment - Know how to experience active citizenship by engaging in activities aimed at promoting correct behaviours - Able to work and collaborate with classmates - Choose providers of green energy.	- Know about the existence of eco-labels and understand them - Know which are the environmental issues caused by incorrect lifestyles -Know which behaviours lead to a sustainable lifestyle -Distinguish the tipologies of energy: the green one vs the fossil one.

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