USING ENERGY IN EACH COUNTRY, QUESTIONNAIRE: USAGE OF ENERGY AT HOME, AT SCHOOL AND IN EACH COUNTRY

Activity n. 35

AIM: To hold a discussion with pupils about the types of energy , their usage in participating schools and countries , questionnaire /discussion how to use energy, green energy and to save energy .

Methodology

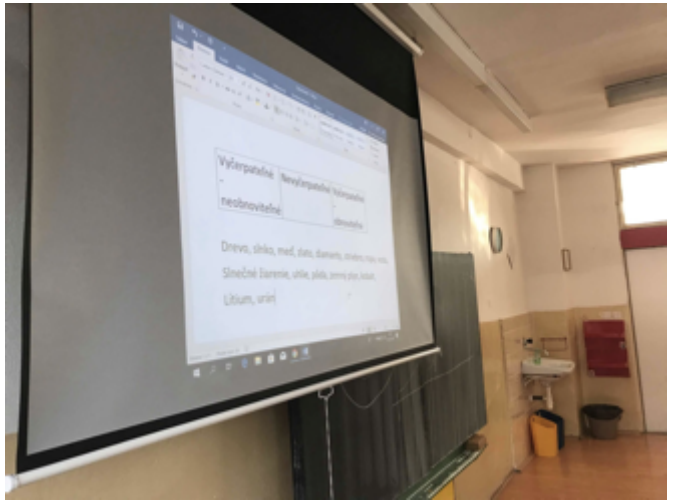
Activity suggestions:

Introductory lecture about the types of energy - arises by transformation of natural resources, discussion about exhaustible and inexhaustible natural resources.

- Traditional sources of energy - oil, natural gas, coal - polluting the environment (air - greenhouse effect, global warming, etc.)
- Alternative energy sources - water, wind, solar, geothermal, biomass (with its impact), atomic, other sources of alternative energy.
- Project work and discussion with pupils about energy.
- Information and questionnaire about the use of energy in the participating schools and countries.
- Saving energy - the best type of energy is the one which is never produced and never exhausted.

Presentation of findings, discussion about energy.

Introduction to the topic energy and natural resources



What is energy? How is it generated?

What are natural resources? What do we know?

Types of natural resources - exhaustible / inexhaustible - renewable / non-renewable

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PPT of pupils – Types of energy (posters and presentations)

- Pupils presentations about traditional and alternative energy sources - thermal energy produced from coal, oil or natural gas.
- Green energy from renewable and inexhaustible energy sources - solar, water, wind, geothermal, biomass and other energy sources (tides, sea waves, sea currents), special energy sources.

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Saving energy at our school

- Replacing ordinary lights with LED lights - saving electricity.
- The roof repairing, replacement of windows with plastic - saving energy for heating.
- Replacing of ordinary water taps with sensors and batteries - saving water.

Support projects:
https://2zs.edupage.org/a/svietime-kvalitne-a-usporne-2018
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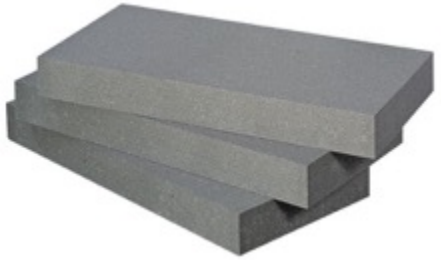
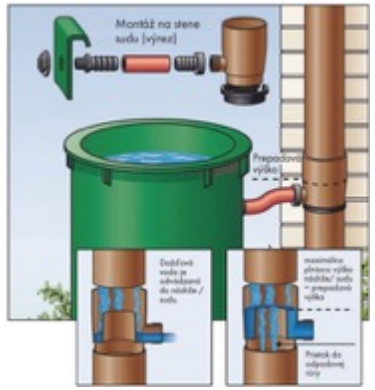
https://2zs.edupage.org/album/?photo=album&wid=album_Paginator_1&offset_album_Paginator_1=80#photos:album:848

What more could we do at school to save energy?

Matej Havran, Simon Drenka (VI. class)

•Green roof with natural lighting.
•Solar panels - water heating for gym and kitchen, power generation.
•Thermal insulation of building - polystyrene / glass wool / thermoregulation coating = reduction of heat leakage.
• Rainwater Capture = Reduction of Water Resources Requirements, e.g. for watering.
• Charging station for electric cars / hybrids



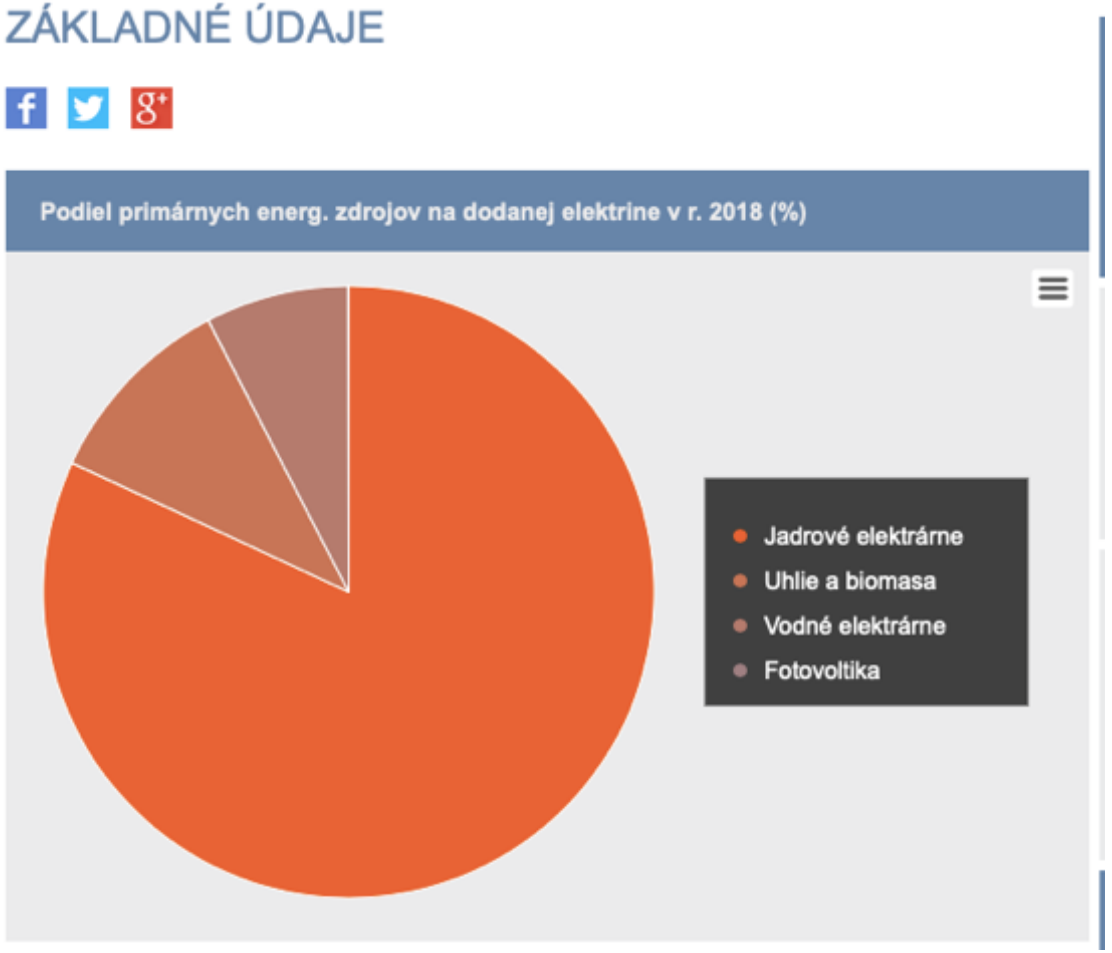


Sources: www.zaujimavosti.net, www.syrecom.sk www.estrechy.sk, www.byvanie.pravda.sk, www.energiaslnka.sk, www.eautoportal.sk www.lo3energy.com, www.ambyrne.com

In Slovakia it is like this (questionnaire)

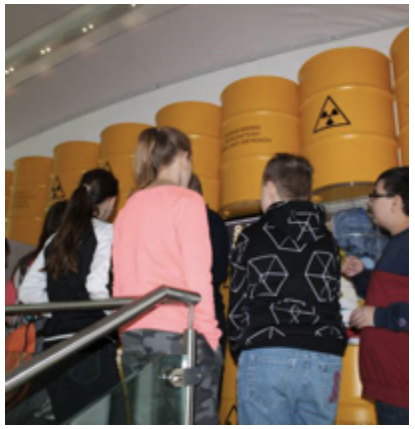
The portion of electricity in Slovakia:

- 81.9% of nuclear power plant (EMO Mochovce near Levice, Jaslovské Bohunice nuclear power plant - gradually shutting down, activated at the times of Czechoslovakia)
- 10.5% coal and biomass (Vojany Power Plants (Eastern Slovakia) and Nováky (Western Slovakia) co-incineration
- 7.6% of hydroelectric power plants (the largest on the river Danube - Gabčíkovo, smaller on the river Váh - Vážska Cascade, local power plants on the river Hron).
- Small local solar (photovoltaic) and geothermal power plants.



https://www.seas.sk/zakladne-udaje, https://www.seas.sk/atomova-jadrova-elektraren

Excursion in EMO Mochovce - we discuss with energy experts the impact of atomic energy on the local environment



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