



RAZVIJANJE ODNOSA DO TRAJNOSTNEGA RAZVOJA PRI POUKU ANGLEŠČINE

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IZHODIŠČA

- Učni načrt: OKOLJSKE TEME -----> MEDPREDMETNO POVEZOVANJE
- angleščina kot 'lingua franca' -----> zavedanje pomena obvladanja jezika
- šibka motivacija za poglobljeno znanje -----> iskanje vedno novih pristopov k poučevanju



PROJEKTNO DELO

CILJI

- ozaveščanje o aktualni okoljski problematiki
- raziskovanje alternativnih virov (IKT)
- predstavljanje teme (plakat)
- kritično soočanje
- razpravljanje
- argumentiranje

V ANGLEŠČINI

POTEK DEJAVNOSTI

- 1 PRIKLIC PREDZNANJA: viri energije (obnovljivi, neobnovljivi)
- 2 SEZNANITEV S PROBLEMOM: Pridobivanje energije v naših krajih v prihodnosti
- 3 NAKLJUČNE SKUPINE: hidroenergija, vetrna energija, sončna energija, biomasa, geotermalna energija
- 4 RAZISKOVANJE (tablice)
- 5 IZDELAVA PLAKATOV



6 PREDSTAVITVE OBNOVLJIVIH VIROV

WIND OR WIND POWER PLANTS FARMS



COUNTRIES

- CHINA
- INDIA
- USA
- UK - offshore

WHY

- LESS IMPACT ON THE ENVIRONMENT
- ONE OF THE GREENEST ENERGY

GOOD	BAD
JOB CREATION	• IMPACT ON WILDLIFE
• COST EFFECTIVE ENERGY	• NOISE
• MINIMAL WATER USAGE	• WEAR AND TEAR (20-25 years)
• LOW GLOBAL WARMING POTENTIAL	
• NO FUEL USAGE	

WHERE

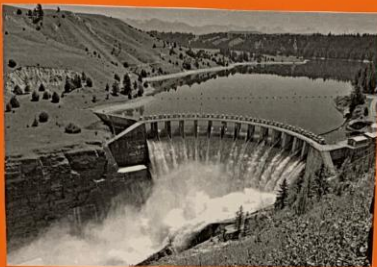
- MOUNTAIN PASS
- SAN GORGONIO PASS
- ALMONT PASS

SLOVENIA

- 3 WIND FARMS
- AROUND NOVA GORICA

WHAT'S HYDROENERGY?

is a renewable source of energy that generates power using a dam or a diversion structure to alter the natural flow of a river or other body of water



HOW IT WORKS?

-Hydroenergy uses turbines and generator to change kinetic energy into electricity which is then fed into the electrical grid to our homes, other businesses and industries.

HYDROENERGY

ATTRACTIONS

- It's mostly used in Idaho, Washington and Oregon, so they have lower energy bills.
- China uses the most hydroenergy, followed by Brazil, the USA and Canada.
- In Europe Norway uses it the most

DISADVANTAGES

- Impact on fish
- Flood risk
- Higher impact on nature
- Higher initial costs
- Large carbon and methane release

ADVANTAGES OF HYDROENERGY

- The electricity is inexpensive
- It's locally produced (we have 1 in Krško)
- It can be used for irrigation
- It is renewable and clean
- It pairs very well with other renewable sources of energy

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SOLAR ENERGY

WHAT ARE SOLAR PANELS?

A solar panel is a device that converts sunlight into electricity by using photovoltaic cells. PV cells are made of materials that produce excited electrons when exposed to light.

WHAT ARE THEY USED FOR?

Solar technologies convert sunlight into electrical energy either through photovoltaic (PV) panels or through mirrors that concentrate solar radiation. This energy can be used to generate electricity or be stored in batteries or thermal storage.

WHAT ARE THEY MADE OF?

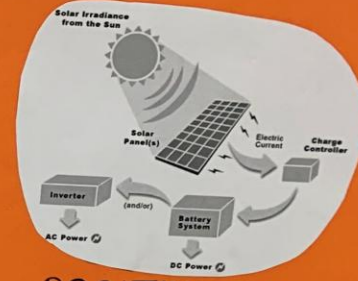
They are usually made from SILICON, or another SEMICONDUCTOR MATERIALS installed in a metal panel frame with a GLASS CASING.

WHAT DO THEY DO WITH OLD SOLAR PANELS?

Solar panel recycling typically involves dismantling the panels, separating the materials, and reclaiming valuable components like aluminum, glass, and silicon for reuse in new products. The process can be expensive but helps recover resources.

NEGATIVE:

- Increased property value
- Energy storage challenges
- Solar energy doesn't work at night and in cloudy weather
- Space requirements



POSITIVE:

- Low maintenance
- Reduced utility bills
- Energy independence
- Renewable energy source
- Environment benefits
- Reduced carbon emissions
- Solar energy reduces your carbon footprint
- Solar is renewable
- Cutting energy costs
- It can be used in any climate

COULD WE USE THIS TYPE OF ENERGY IN OUR TOWN, KRŠKO?

Yes, we can.

They can be put on top of houses and other buildings like schools...

BIOMASS

ADVANTAGES

- is always and widely available as a renewable source of energy
- it is carbon neutral
- it reduces the overreliance of fossil fuels
- is less expensive than fossil fuels
- biomass production adds a revenue source for manufacturers
- less garbage in landfills

DISADVANTAGES

- biomass energy is not as efficient as fossil fuels
- it is not entirely clean
- can lead to deforestation
- biomass plants require a lot of space

TYPES OF BIOMASS

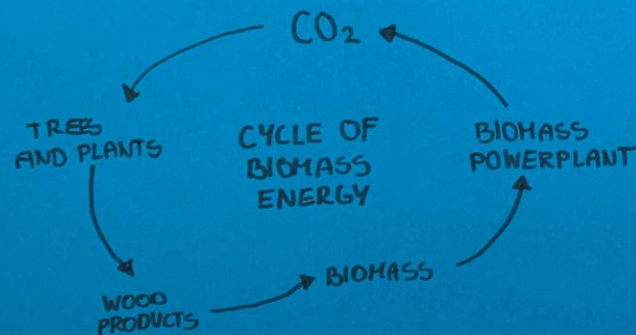
- GARBAGE
- WOOD
- LANDFILL GAS
- CROPS
- ALCOHOL FUELS

KRŠKO

- yes, but we don't have space for that.
- because we already have nuclear power and other sources of energy.

WHAT IS THAT?

- The mass of living biological organisms in the area or ecosystem.
- It can be the biomass of particular species or particular community or habitat



WHERE IT COULD BE BUILT

- Where there are springs, geysers or volcanic activity
- There must be plenty of space
- It must be on the right ~~kind~~ plane

WHAT IS GEOTHERMAL ENERGY

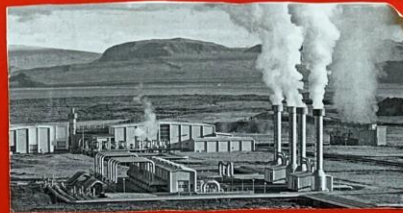
- Geothermal energy is heat from the earth.
- geo (EARTH) + thermal (heat).

GEOTHERMAL ENERGY

DISADVANTAGES

- It requires a larger investment
- A lot of materials are required to build the pipes
- There aren't many places suitable for construction

They will build a geothermal power plant in Lendava.



ADVANTAGES

- No harmful emissions
- Limits the use of fossil fuels
- Geothermal power plants need less space to operate
- It is reliable because it does not rely on weather
- Electricity from geothermal power plants can produce electricity 24 hours a day.
- It is clean and safe for the environment



7 FORMIRANJE NOVIH SKUPIN – po različnih interesih

- Inženirji/zagovorniki obnovljivih virov energije
- Zagovorniki neobnovljivih virov energije
- Naravovarstveniki
- Predstavniki kmetov/lokalne skupnosti
- Predstavniki vlade



ISKANJE ARGUMENTOV ZA IN PROTI DOLOČENI VRSTI ENERGIJE

8 SKLEPNA FAZA

RAZPRAVA V OBLIKI OKROGLE MIZE NA TEMO:

‘Kako rešiti problem energije v naših krajih za prihodnje generacije?’

- dobro poznavanje obnovljivih virov
- sposobnost argumentiranja
- oblikovanje namenov učenja



PREDSTAVNIKI INTERESNIH SKUPIN + MODERATOR

ZAKLJUČEK

- po mnenju učencev je optimalna rešitev jedrska energija
(manjši poseg v naravo, ni odvisna od vremena in časa, ne povzroča izpustov toplogrednih plinov)
- motivacija od začetka do konca učnega procesa
- nekatere faze nekoliko prezahtevne za to stopnjo
- časovna opredelitev posameznih korakov

VIRI IN LITERATURA

- Andrin, A., Eržen V., Kogoj, B. in Lesničar, B. (2016). *Program osnovna šola angleščina učni načrt 2016*. Ljubljana: Ministrstvo za šolstvo, znanje in šport, Zavod RS za šolstvo
- Strmčnik, F. (1992). *Problemski pouk v teoriji in praksi*. Radovljica: Didakta