

Day 5

Making Energy



WARM-UP



Have your homework out for me to check.

In your notebook, explain the energy transformation for the following;

A flashlight

A bicycle

A battery

Agenda for Today

- Go through the video notes that are posted on the notes page of my website for Today (30 min.)
- Once you finish this, go to Google Classroom and follow the two links posted for virtual circuitry labs. (10 min.)
- Quizlet Live (15 min.)
- Law of Conservation of Energy Article (20 min.)

Generating Electricity

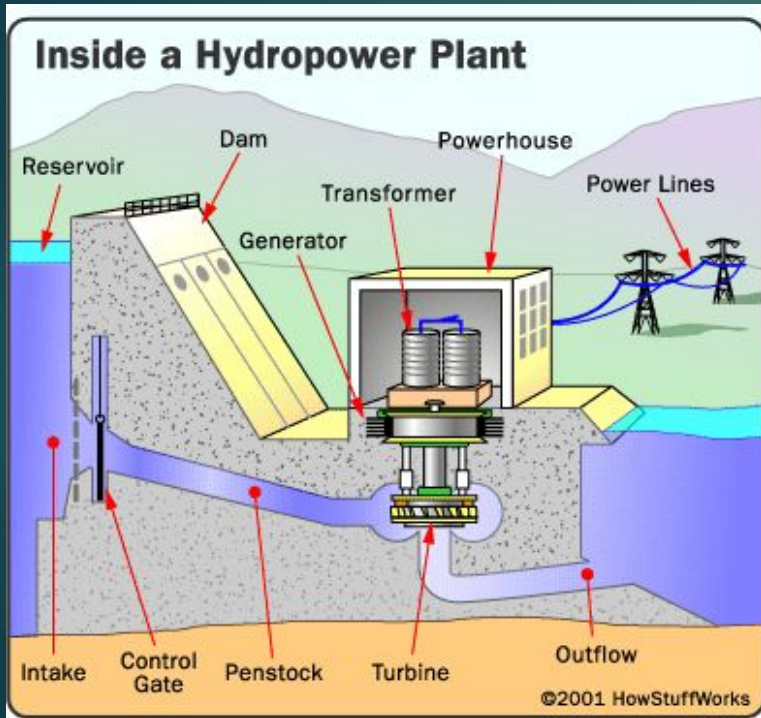


Electricity can be generated by burning other forms of energy (fossil fuels) to create thermal energy or by kinetic energy.

All have one component in common; a turbine generator.

[How it works](#)

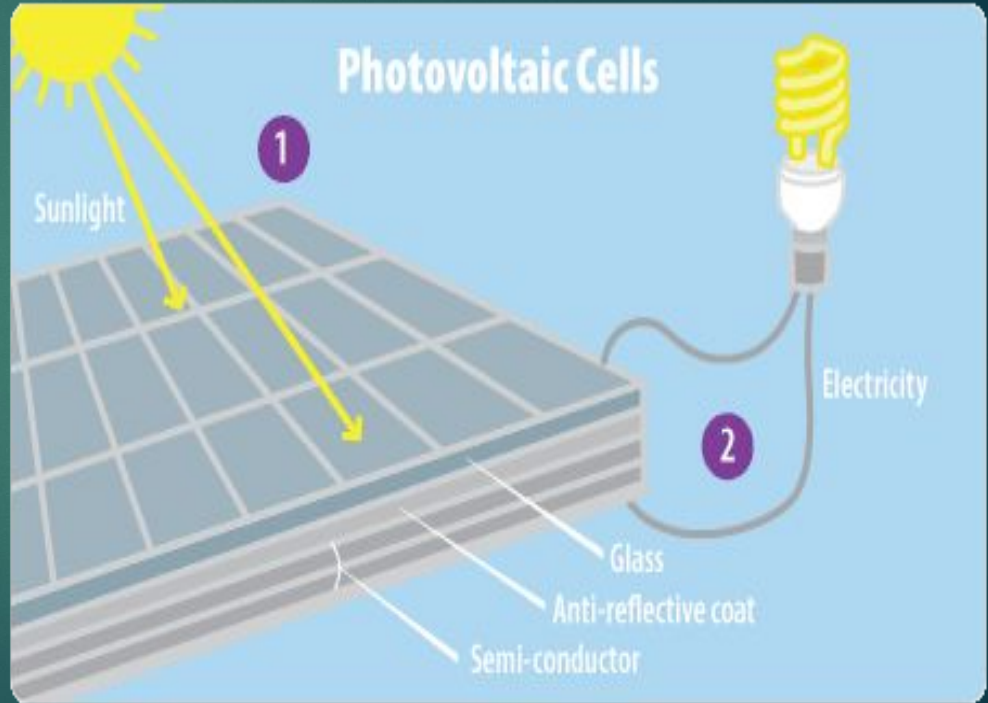
Hydroelectric Energy



- Found on large rivers.
- The water in the reservoir behind the dam is the potential energy.
- Fast moving water turns the turbines that drive the generator.
- [How It Works](#)

Solar Energy

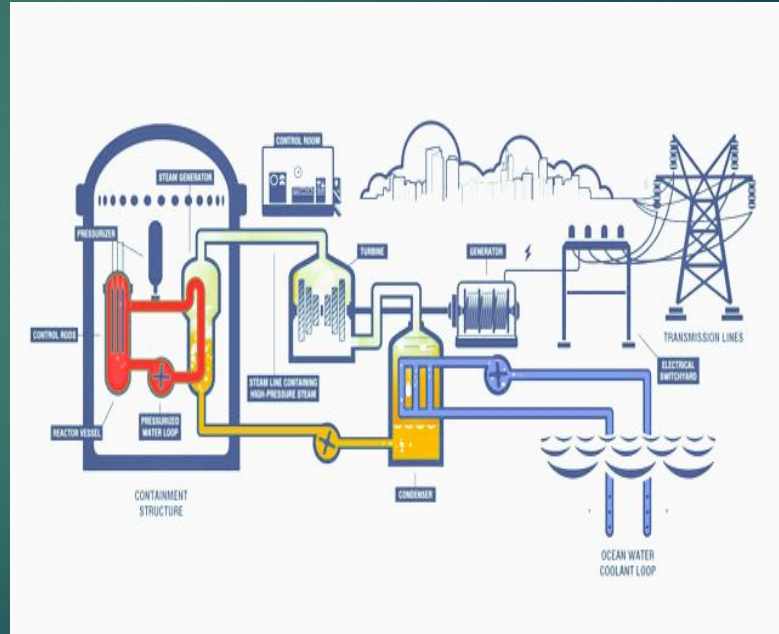
- Photovoltaic cell, made of several layers of silicon and other materials converts light energy to electricity.
- Several together make solar panels.
- [Brain Pop](#)



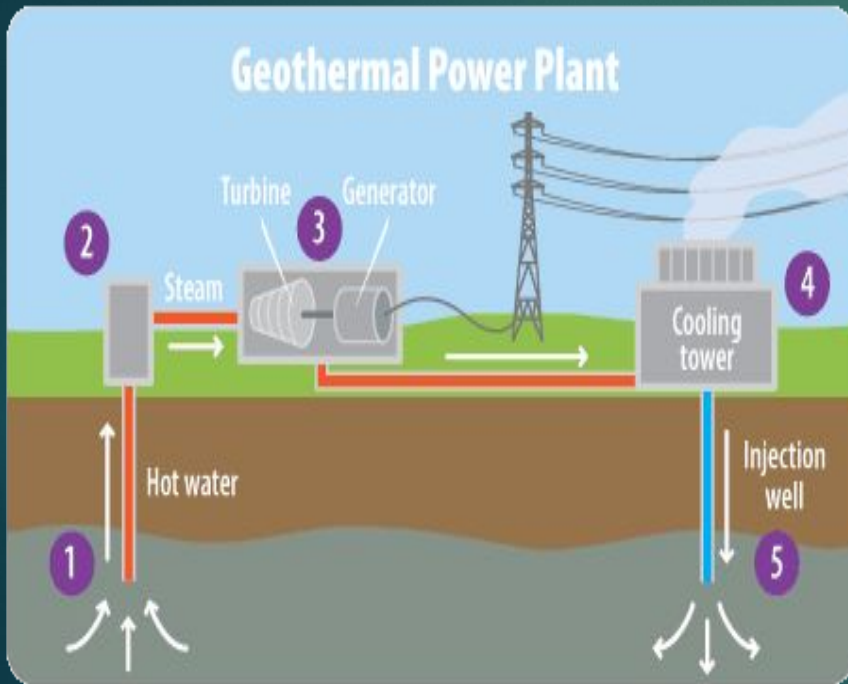
Nuclear Energy

Nuclear Energy is used by splitting Uranium atoms (called fission) to create steam from water which is used to generate electricity with a turbine generator.

[Brain Pop](#)



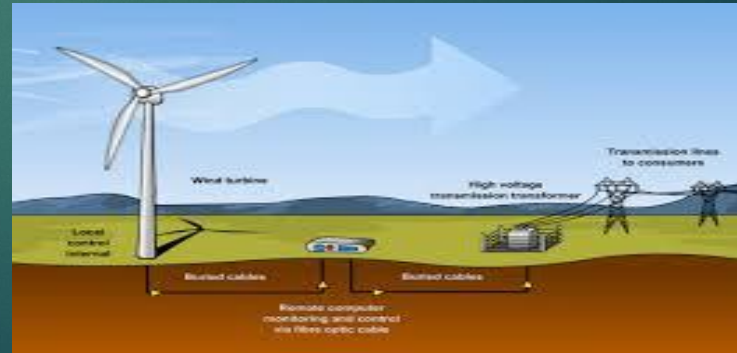
Geothermal Energy



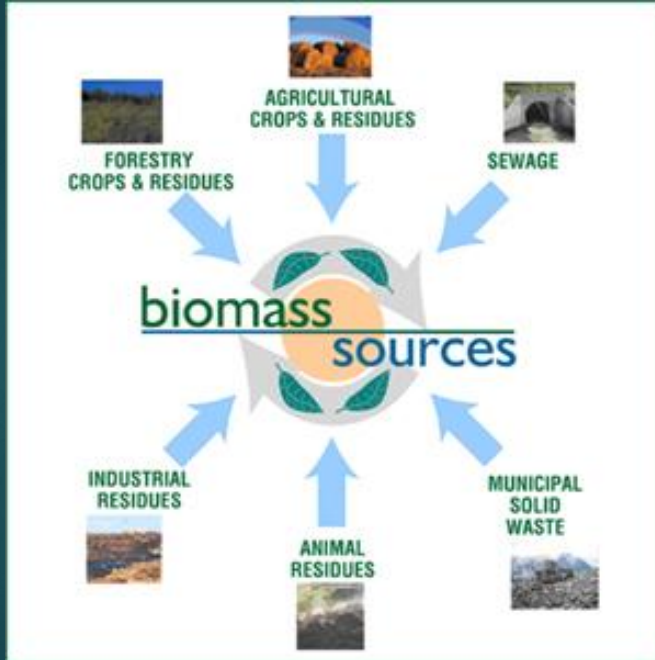
- Comes from underground water that is heated by hot rock to create steam to turn a turbine.

Wind Energy

- Hundreds of windmills are built on a “wind farm”
- Blades act as a turbine, to create electricity.
- Amount of electricity produced depends on the speed of the wind.



Biomass Energy

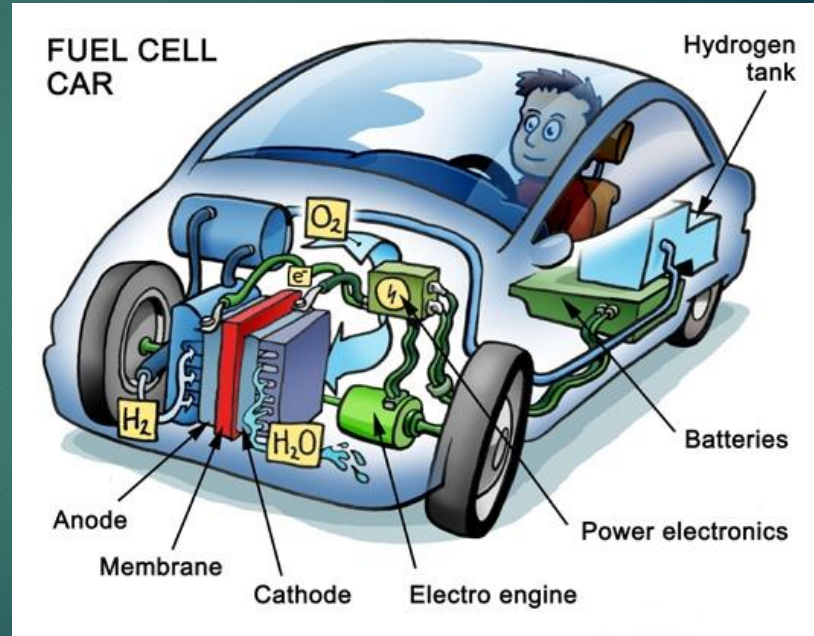


- Organic matter that can be burned to generate electricity.
- Sugar and starch in corn can be made into liquid fuel called ethanol
- [Brainpop](#)

Hydrogen Fuel Cells

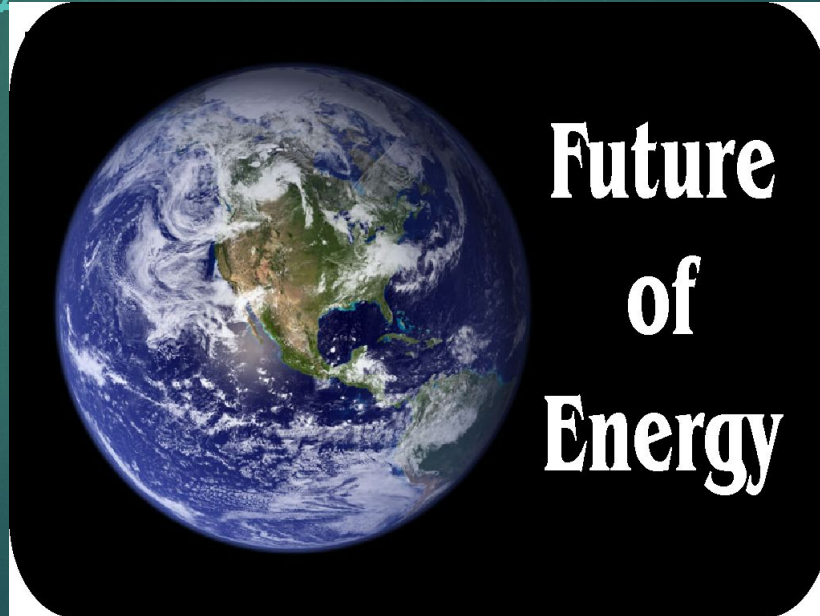
- Hydrogen fuel cells produces electricity by separating hydrogen into protons and electrons.

How it works



The future

Top 10 energy sources of the future



HOMEWORK



Review what you have learned today.

[Quizlet Live](#)