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Let's Use Energy Usefully

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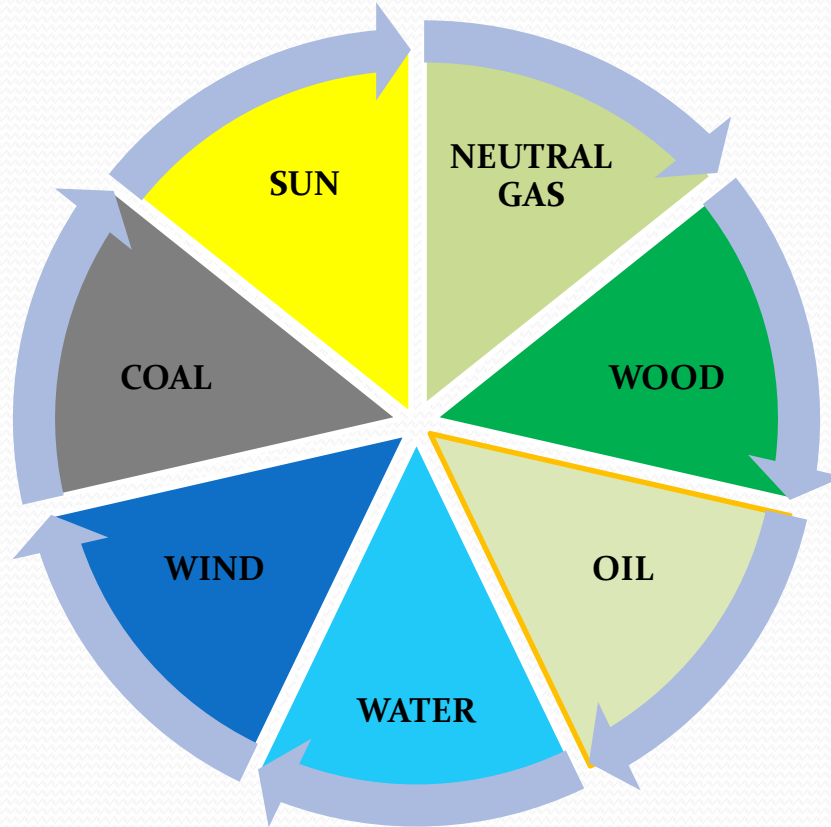


“DIFFERENT KINDS OF RENEWABLE ENERGY”

Bragança, PORTUGAL



DIFFERENT SOURCES OF ENERGY



NON- RENEWABE ENERGY

- Comes from sources that will run out or will not be replenished in our lifetimes— or even in many, many lifetimes
- Includes fossil fuels such as oil, gas, and coal
- Inexpensive
- Harmful for the environment

“DIRTY” ENERGY



RENEWABLE ENERGY

➤ Renewable energy(sources) or RES capture their energy from existing flows of energy, from on-going natural processes, such as sunshine, wind, flowing water, biological processes, and geothermal heat flows that are constantly replenished

“CLEAN” ENERGY



DIFFERENT KINDS OF RENEWABLE ENERGY

SOLAR ENERGY

- Solar power means energy from the sun
- It is used to generate electricity, using solar panels
- “More energy from the sun falls on the earth in one hour than is used by everyone in the world in one year.”



DIFFERENT KINDS OF RENEWABLE ENERGY

WIND POWER

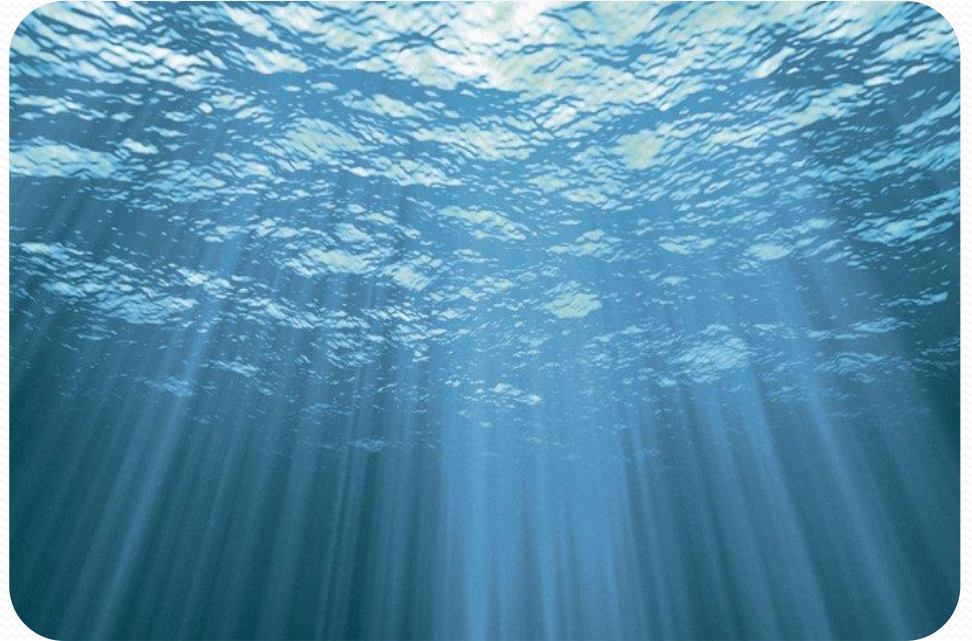
- Wind power is a new source of energy that's as old as the earth
- Most wind power is converted to electricity by using wind turbines
- Wind is a natural resource that never runs out



DIFFERENT KINDS OF RENEWABLE ENERGY

WATER POWER

- Energy of falling water or fast running water
- Energy from the ocean



DIFFERENT KINDS OF RENEWABLE ENERGY

HYDROPOWER

- Hydropower is power derived from the energy of falling water or fast running water
- Used to create electricity by using dams
- Water is so plentiful and it is replenished every time it rains



DIFFERENT KINDS OF RENEWABLE ENERGY

POWER FROM THE OCEAN

Two types of energy can be produced by the ocean:

- Ocean thermal energy- from the sun heat
- Ocean mechanical energy- from the motion of tides and waves



DIFFERENT KINDS OF RENEWABLE ENERGY

GEOHERMAL ENERGY

- Heat from the earth
- Very efficient and doesn't hurt the environment
- Limited by its location-geothermal sources only occur in areas of the world that have volcanoes



DIFFERENT KINDS OF RENEWABLE ENERGY

BIOENERGY

➤ Biomass refers to any organic matter coming from recently living plants or animal

➤ A type of renewable energy derived from biomass to create heat and electricity or to produce liquid fuels such as ethanol and biodiesel used for transportation.



DIFFERENT KINDS OF RENEWABLE ENERGY

WOOD

- The earliest known energy source in human history
- Wood is heavily used to supply the energy for cooking and heating
- **BE CAREFUL!** Trees could be replaced! It takes years to grow



Is Nuclear Energy Renewable or Non- renewable Energy?

Nuclear Energy

- Nuclear energy uses the power of the atom to create steam power
- It is considered clean energy but its inclusion in the renewable energy list is a subject of major debate



Is Nuclear Energy Renewable Energy?

Arguments **FOR**

- low carbon emission
- uranium resources would be enough to fuel the earth for another 5 billion years

Arguments **AGAINST**

- uranium deposit on earth is finite, unlike solar and wind.
- Nuclear generates waste that can be dangerous for human health and the environment



LET'S USE ENERGY USEFULLY!

- Use energy responsibly to make a difference
- Combine the sources all to positively affect issues like climate change, pollution and many others.
- Find the best energy mix for each region
- Increase the use of renewable sources





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