A. 2 Energy Types

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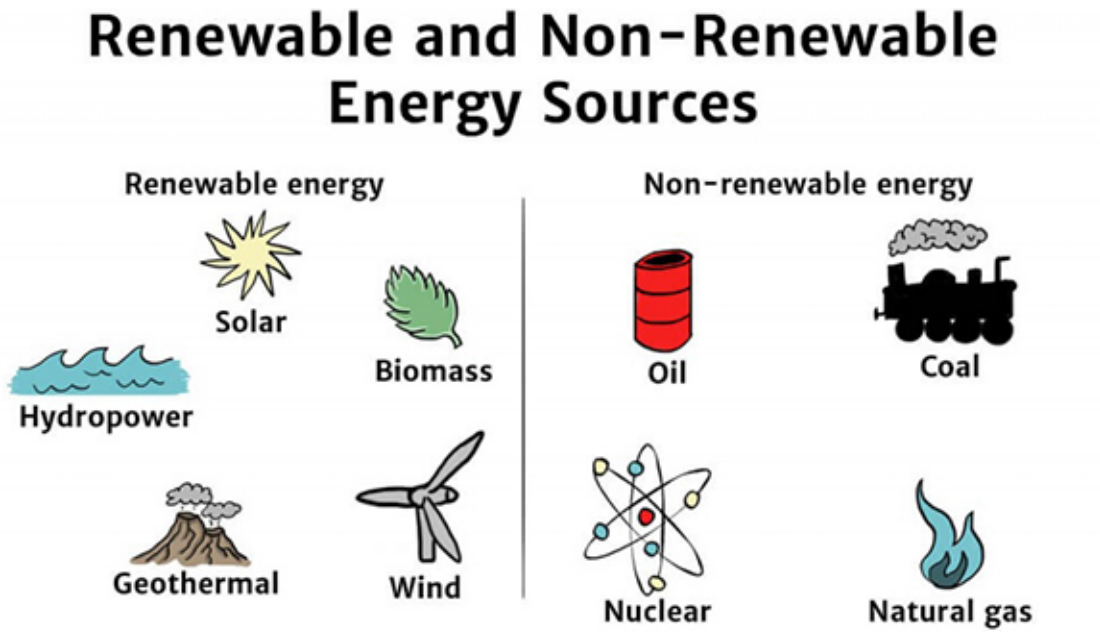

Energy is what makes things work. It powers our homes, schools, and all the cool gadgets we use every day. There are two main types of energy: non-renewable energy and renewable energy. Let's learn about these two types of energy and how they affect our planet.

Non-Renewable Energy
Non-renewable energy comes from sources that will run out one day. These sources take millions of years to form, so once they are gone, they cannot be easily replaced. One example of non-renewable energy is fossil fuels, such as coal, oil, and natural gas. These fuels were formed from the remains of plants and animals that lived millions of years ago.

How We Use Non-Renewable Energy
We use non-renewable energy to generate electricity, power our cars, and heat our homes. Fossil fuels are burned to release energy, but this process also releases harmful gases into the atmosphere, like carbon dioxide. These gases contribute to global warming and climate change.

Renewable Energy
Renewable energy comes from sources that are abundant and can be replenished quickly. Unlike non-renewable energy, these sources will never run out. Examples of renewable energy sources include the sun (solar energy), wind (wind energy), water (hydroelectric energy), and biomass (energy from plants and organic materials).

Solar Energy
Solar energy is harnessed by using solar panels that capture sunlight and convert it into electricity. It is a clean and renewable source of energy that can be used to power homes and buildings.

Wind Energy
Wind energy is generated by wind turbines that capture the power of the wind and turn it into electricity. Wind energy is also a clean and renewable source of power.

Hydroelectric Energy
Hydroelectric energy is produced by harnessing the power of flowing water, like rivers or waterfalls, to generate electricity. Dams are built to control the flow of water and turn turbines that produce electricity.

Biomass Energy
Biomass energy is created by burning organic materials like wood, agricultural residues, and other plant matter. It is a renewable energy source because we can always grow more plants and trees to replace the ones we use for energy.

Advantages of Renewable Energy
Renewable energy has many benefits. It helps reduce greenhouse gas emissions and combat climate change. It also creates job opportunities in the renewable energy sector and reduces our dependence on fossil fuels.

1. Which type of energy comes from sources that will run out one day?
    A) Non-renewable energy
    B) Renewable energy
    C) Solar energy
    D) Wind energy

2. What are fossil fuels examples of?
    A) Non-renewable energy
    B) Renewable energy
    C) Solar energy
    D) Wind energy

3. How are fossil fuels formed?
    A) They are created from solar power
    B) They take millions of years to form from remains of plants and animals
    C) They come from wind energy
    D) They are made from burning biomass

4. What do we use non-renewable energy for?
    A) Generating electricity, powering cars, and heating homes
    B) Harnessing solar and wind energy
    C) Generating hydroelectric energy
    D) Creating biomass energy

5. Which type of energy comes from sources that can be replenished quickly and will never run out?
    A) Non-renewable energy
    B) Renewable energy
    C) Solar energy
    D) Wind energy

6. What is an example of renewable energy?
    A) Fossil fuels
    B) Oil
    C) Solar energy
    D) Natural gas

7. How is solar energy harnessed?
    A) By burning fossil fuels
    B) By capturing sunlight with solar panels and converting it into electricity
    C) By using wind turbines to capture wind power
    D) By building dams to control water flow

8. What is an example of renewable energy from flowing water?
    A) Solar energy
    B) Wind energy
    C) Hydroelectric energy
    D) Biomass energy

9. What is biomass energy produced from?
    A) Capturing sunlight
    B) Burning fossil fuels
    C) Burning organic materials like wood and plant matter
    D) Harnessing wind power

10. What are the advantages of renewable energy?
    A) Reducing greenhouse gas emissions, creating job opportunities, and reducing dependence on fossil fuels
    B) Increasing greenhouse gas emissions, reducing job opportunities, and increasing dependence on fossil fuels
    C) Producing harmful gases, creating job opportunities, and increasing dependence on fossil fuels
    D) Reducing greenhouse gas emissions, decreasing job opportunities, and increasing dependence on fossil fuels

ANSWERS & EXPLANATIONS

1. A - Non-renewable energy.
    - Non-renewable energy comes from sources that will run out one day.

2. A - Non-renewable energy.
    - Fossil fuels are examples of non-renewable energy sources.

3. B - They take millions of years to form from remains of plants and animals.
    - Fossil fuels are formed from the remains of plants and animals that lived millions of years ago.

4. A - Generating electricity, powering cars, and heating homes.
    - Non-renewable energy is used for various purposes, including generating electricity, powering cars, and heating homes.

5. B - Renewable energy.
    - Renewable energy comes from sources that can be replenished quickly and will never run out.

6. C - Solar energy.
    - Solar energy is an example of renewable energy that comes from the sun.

7. B - By capturing sunlight with solar panels and converting it into electricity.
    - Solar energy is harnessed using solar panels that capture sunlight and convert it into electricity.

8. C - Hydroelectric energy.
    - Hydroelectric energy is an example of renewable energy that is produced from flowing water.

9. C - Burning organic materials like wood and plant matter.
    - Biomass energy is produced by burning organic materials like wood and plant matter.

10. A - Reducing greenhouse gas emissions, creating job opportunities, and reducing dependence on fossil fuels.
    - Renewable energy has many advantages, including reducing greenhouse gas emissions, creating job opportunities, and reducing our reliance on fossil fuels.