

Study Guide
Chapter 9 – Energy Resources

GPS:

S6E5. Students will investigate the scientific view of how the earth's surface is formed.

j. Describe methods for conserving natural resources such as water, soil, and air.

S6E6. Students will describe various sources of energy and with their uses and conservation.

a. Explain the role of the Sun as the major source of energy and the Sun's relationship to wind and water energy.

b. Identify renewable and nonrenewable resources.

1. A _____ is a substance that provides energy – such as heat, light, motion, or electricity – such as the result of a chemical change.
2. Fuels contain stored chemical energy that is released when burned, like when gasoline in a car's engine is burned, and converted into thermal energy. This process is called _____.
3. In an electric power plant, the thermal energy produced by burning fuel is used to boil water, making _____ which then turns the blades of a turbine.
4. The three major fossil fuels are _____, _____, and _____.
5. Fossil fuels are made of energy-rich chemical compounds called _____ which contain carbon and hydrogen atoms.
6. _____ is a solid fossil fuel formed from plant remains and is the most plentiful fossil fuel in the United States.
7. _____ or _____ is a thick, black, liquid fossil fuel which is formed from the remains of animals, algae, and other organisms.
8. A factory in which crude oil is heated and separated into fuels and other products is called a _____.
9. _____ forms like oil is formed and produces large amounts of energy but produces lower levels of air pollutants
10. Fossil fuels are considered _____ resources because they take hundreds of millions of years to form.
11. If _____ continue to be used more rapidly than they are formed, the reserves will eventually be used up.
12. One advantage of _____ is that it does not cause pollution and will not run out for billions of years.
13. Solar energy can be converted directly into electricity in a _____ and is used in items like calculators.
14. Wind and hydroelectric power are both indirect forms of _____ energy
15. _____ power is the most widely used source of renewable energy.
16. _____ fuels include leaves, food wastes, and even manure, belong to a group of renewable resources but are expensive to make in large quantities.
17. The intense heat from Earth's interior that warms the magma is called _____ energy.
18. The central core of an atom that contains the protons and neutrons is called the _____.
19. _____ is the splitting of an atom's nucleus into two smaller nuclei.
20. The process of nuclear fission begins when a _____ strikes the nucleus of an atom causing a chain reaction releasing energy.
21. In a nuclear power plant, the heat released from fission reactions is used to change water into _____ which then turns the blades of a turbine to generate electricity.
22. One way to make energy resources last longer is to use fuels more efficiently. _____ is the percentage of energy used for work.
23. _____ means reducing energy use.
24. List several examples of how you can conserve energy:
