

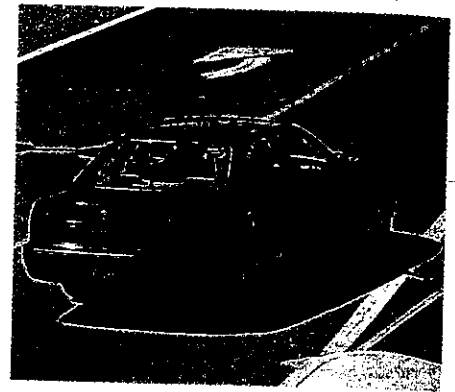
UNIT 3

Nature's Energies

What Is Energy?



Jumping and running take energy.



A car uses energy to move.

Imagine you have been swimming for a long time. You are tired. Some friends ask you to play volleyball. You say that you do not have the energy. What exactly do you mean? What is energy?

Energy is the ability to do work. Moving things is a type of work. When you hit a volleyball, you move it. When you jump and run, you move yourself. Playing volleyball, jumping, and running all take energy.

There are several kinds of energy. One kind of energy is **mechanical energy**. Whenever anything moves, it is using mechanical energy. A second kind of energy is **heat energy**. Heat energy passes heat from one object to another. A third kind of energy is **electric energy**. Electric energy makes light bulbs light up and radios play. A fourth kind of energy is **chemical energy**. Gasoline has chemical energy. When gasoline is burned in a car's engine, the chemical energy is changed to mechanical energy. The mechanical energy moves the car.

Energy is not matter, because it does not have mass or take up space. You cannot see energy, but you can see what energy does. Each kind of energy can change into other kinds of energy. In this unit you will learn about different kinds of energy.

A. Use the words below to complete the sentences.

chemical
Electric

Energy
Heat

matter
mechanical

1. _____ is the ability to do work.
2. Whenever anything moves, it is using _____ energy.
3. _____ energy passes heat from one object to another.
4. _____ energy makes light bulbs light up and radios play.
5. Gasoline has _____ energy.
6. Energy is not _____.

B. Answer True or False.

1. There is only one kind of energy. _____
2. When you jump and run, you do work. _____
3. Gasoline has heat energy. _____
4. Each kind of energy can change into other kinds of energy.

5. It does not take energy to hit a volleyball. _____
6. Heat energy passes heat from one object to another. _____
7. Energy has mass and takes up space. _____

C. Answer the questions.

1. What are four kinds of energy? _____

2. What is energy? _____
