Hidden Meanings
Read the following paragraphs, and complete the exercises below.
Many of the words you learn in science, such as *element* and *compound*, are related to the concepts they represent. The connection, however, is not always obvious. To see how words and concepts are related, you must look at the history of the words—their *etymology*.

THE ROOTS OF *ELEMENT* AND *COMPOUND*
For example, the word *element* is derived from the Latin word *elementum*, which means "fundamental." Elements cannot be broken down into smaller substances—they are the fundamental building blocks of matter.

The word *compound*, on the other hand, comes from two Latin words: *com*, which means "together," and *ponere*, which means "to put." Taken as a whole, the word *componere* means "putting together." This corresponds to our current scientific use of the word *compound*: a compound has atoms of two or more elements that have been put together. Learning the roots of these and other words can help you remember what the words mean.

ATOMS ARE NO LONGER "UNCUTTABLE"
In some cases, the etymology of a word relates more to its history than to its current use. For example, the word *atom* comes from the Greek word *atomos*, which means "uncuttable." Atoms were given this name because, at the time of their discovery, scientists believed that they were the smallest units of matter and could not be divided. We now know that there are smaller particles within atoms, such as protons, electrons, and quarks, but to avoid confusion, we keep the name *atom*.

EXERCISES
1. How can etymologies help you know the meanings of scientific terms?

2. Can you always find the meaning of a word from its roots? Explain your answer.

3. The word *physical* is derived from the Greek word *phusis*, which means "nature," and the word *science* is derived from the Latin word *sciens*, which means "knowing." Based on these derivations, what do you think *physical science* means?