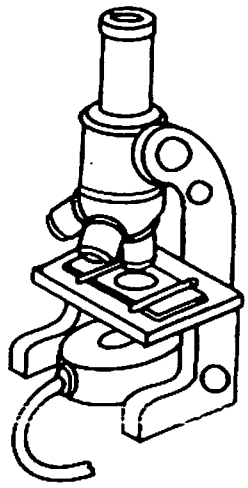
Name _____ Date _____

Matter

Matter is made up of basic units. Matter can be combined, separated, mixed, and altered. The smallest building block of matter that retains the properties of matter is the **atom**. A single crystal of salt or grain of rice is made up of millions of atoms. Atoms are too small to be seen except with very powerful microscopes.



An **element** is made up of only one kind of atom. Few of the things you see around you are pure elements. Wood, plastic, and steel are made of molecules that consist of many kinds of atoms. A substance made of two or more elements chemically combined is called a **compound**. When two or more atoms combine, they form a **molecule**. A molecule is the smallest particle of matter that consists of more than one atom.

Darken the letter of the answer that best completes each sentence.

1. The smallest building block of matter is _____.
   - Ⓐ a molecule
   - Ⓑ an element
   - Ⓒ an atom
   - Ⓓ a compound

2. _____ is made up of only one kind of atom.
   - Ⓐ A molecule
   - Ⓑ An element
   - Ⓒ An atom
   - Ⓓ A compound

3. _____ is a substance made of two or more elements chemically combined.
   - Ⓐ A molecule
   - Ⓑ An element
   - Ⓒ An atom
   - Ⓓ A compound

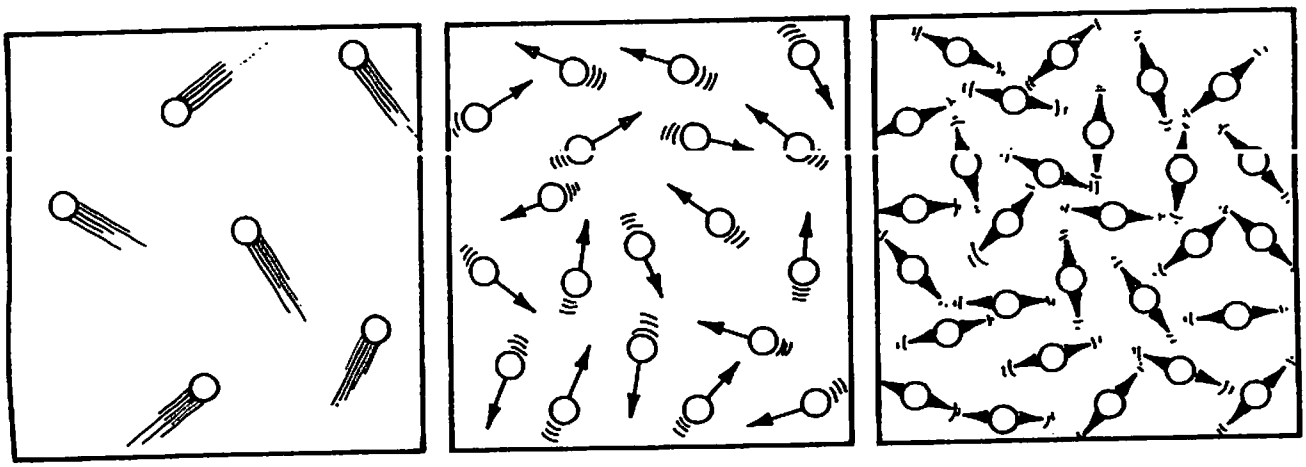
4. When two or more atoms combine, they form _____.
   - Ⓐ a molecule
   - Ⓑ an element
   - Ⓒ an atom
   - Ⓓ a compound

Name _____ Date _____

Molecules in Matter

The three phases of matter are solids, liquids, and gases. Molecules are the smallest parts of a substance. In solids, molecules are packed tightly together, vibrating slightly. For this reason, solids retain their shape. In liquids, molecules are packed less tightly; they slide over each other. Therefore, water has the characteristics of size and movement. In gases, molecules bump against each other, moving wildly and quickly in all directions. Gas does not have its own shape and must take the shape of its container.

Look at the pictures. Tell which is a picture of the molecules in a solid, liquid, or gas. Write *solid*, *liquid*, or *gas*.



1. _____ 2. _____ 3. _____

Answer the questions.

4. In which kind of matter do the molecules move the fastest?

_____

5. In which kind of matter do the molecules vibrate?

_____

6. Compare the movement of molecules in a solid with the movement of molecules in a liquid.

_____

_____