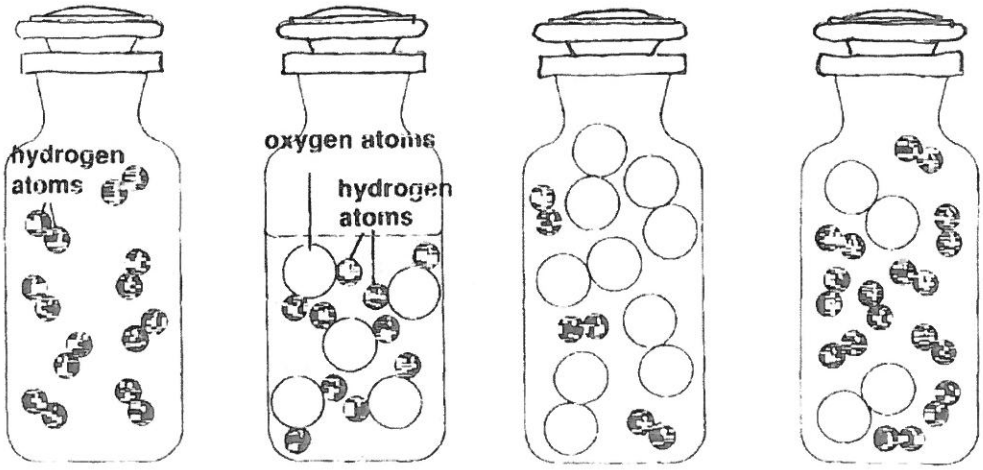
NAME: PD:

Elements, Compounds, and Mixtures



1. Which of the bottles pictured above contain(s) matter? Which contain(s) a single substance?

2. How many elements are present in each molecule of water shown in bottle (b)? What is the relative number of atoms of each element in a water molecule?

3. What would you expect the ratio of hydrogen atoms to oxygen atoms to be in a molecule of ice?

4. Bottle (c) and Bottle (d) both contain mixtures. How are these mixtures similar? How are they different?
   SIMILAR:

   DIFFERENT

5. Suppose you find an unlabeled bottle containing a clear liquid. Can you tell by looking at it whether the material is a compound or a mixture? Explain your answer.

6. How can you prove that a sample of seawater is a mixture?

7. Classify the following items as *elements, compounds* or *mixtures*:

Rice pudding:	Air	Granite
Copper	Milk	Mercury
Carbon dioxide	Magnesium chloride	Maple syrup

8. A chocolate-chip cookie with more chips in one part of the cookie than another can be used to demonstrate a heterogeneous mixture. Name two other materials that can be classified as heterogeneous mixtures.