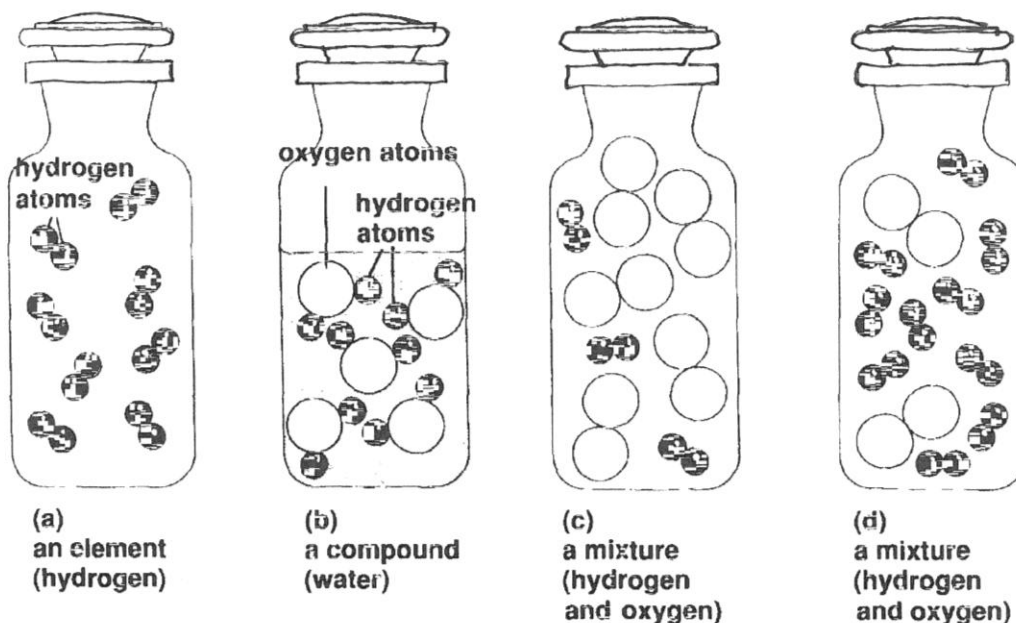


## Elements, Compounds, and Mixtures



- Which of the bottles pictured above contain(s) matter? Which contain(s) a single substance?
- 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?
- What would you expect the ratio of hydrogen atoms to oxygen atoms to be in a molecule of ice?
- Bottle (c) and Bottle (d) both contain mixtures. How are these mixtures similar? How are they different?  
 SIMILAR:  
  
 DIFFERENT
- 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.
- How can you prove that a sample of seawater is a mixture?
- Classify the following items as *elements*, *compounds* or *mixtures*:
 

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