

REVIEW

4

CHAPTER 4

Mixed Review

1. **Applying Knowledge** If a clear liquid is allowed to evaporate at room temperature and it leaves behind a white residue, was the original liquid a mixture or a compound? Explain your answer.

2. **Applying Knowledge** Fill in the missing information in the table of organic compounds shown below.

Type of organic compound	Characteristic	Suffix in name
a.	Single covalent bonds between all carbon atoms	b.
Alkene	c.	d.
e.	f.	-ol

3. **Applying Knowledge** What type of bonding is found among the atoms in the following substances:

_____ a. gold bar
 _____ b. table salt
 _____ c. nitrogen dioxide

4. **Creative Thinking** Consider the old saying, "You are what you eat." How do the proteins in your body support that old saying?

5. **Applying Knowledge** Name the following compounds:

_____ a. CH₄
 _____ b. CuI₃
 _____ c. Al₂Cl₃
 _____ d. P₂O₅
 _____ e. C₂H₆O

Chapter 4 Mixed Review, continued

6. Creative Thinking Carbon is found in many forms in nature. Two minerals made up of only carbon atoms are graphite and diamond. Graphite is used as pencil lead because it is soft and the carbon atoms will rub off on paper. Diamond is the hardest substance and is used as an abrasive in cutting tools. What do you think the difference is in the structure of graphite and diamond?

7. Applying Knowledge Why can carbon and hydrogen form so many different hydrocarbons?

8. Concept Mapping Complete the concept map below by writing the correct word or phrase in the lettered boxes.

