

Lesson 4 Worksheet:

1. What type of bond is formed when two non-metal atoms share electrons?

2. What is a molecule?

3. Why do covalent compounds tend to have low melting points?

4. Someone on the news is talking about the compound magnesium chloride, MgCl_2 , and refers to “molecules of magnesium chloride”. What is wrong with this phrase?

5. At room temperature, many covalent compounds exist as liquids or gases, while ionic compounds are all solids. Why is this?

6. Seven elements exist as diatomic molecules.
 - a. List the seven elements.

 - b. Why do the halogens exist as diatomic molecules while the noble gases do not?

7. Classify each of the following as ionic or covalent.

a. Lithium fluoride, LiF

b. Nitrogen triiodide, NI₃

c. Bromine dioxide, BrO₂

d. Barium iodide, BaI₂

8. Complete the table to show the differences between ionic and covalent compounds.

Characteristic	Ionic Compounds	Covalent Compounds
Melting Point		
Hardness		
Conductivity		
Types of Elements		
Description of Bonding		
Three Examples		

9. Describe what a network solid is.