

BONDING REVIEW QUESTIONS, IPSH

Answer the following questions in complete sentences in your science notebook. Restate the questions in your answers. Refer to your notebook and Chapter 18 in your text for help.

1. What do the Lewis structures (electron-dot structures) of elements in the same group in the periodic table have in common with each other?
2. To become a negative ion, does an atom lose or gain electrons?
3. Why does the fluorine atom tend to gain only one electron?
4. What kind of force holds two atoms together within an ionic bond?
5. Magnesium ions carry a 2+ charge, and chloride ions carry a 1- charge. What is the chemical formula for the ionic compound magnesium chloride?
6. Why does the potassium atom tend to lose only one electron?
7. Two fluorine atoms join together to form a covalent bond. Why don't two potassium atoms do the same thing?
8. Classify the following bonds as ionic, covalent, or metallic:
 - A. O with F
 - B. Ca with Cl
 - C. Na with Na
 - D. U and Cl
9. Phosphine is a covalent compound of phosphorus, P, and hydrogen, H. What is its chemical formula?
10. How many nonbonding pairs of electrons are there in the oxygen atom of a water molecule? How many bonding pairs?