

Atoms and Bonding ▪ 5.2 Review and Reinforce**Ionic Bonds****Understanding Main Ideas**

Answer the following questions on a separate sheet of paper.

1. How does an atom become a positive ion? How does an atom become a negative ion?
2. How do ions form electrically neutral compounds?
3. What characteristics do solid ionic compounds share?
4. Why does the electrical conductivity of ionic compounds change when they are dissolved in water?

Ions and Their Charges		
Name	Charge	Symbol/Formula
Ammonium	1+	NH_4^+
Potassium	1+	K^+
Calcium	2+	Ca^{2+}
Magnesium	2+	Mg^{2+}
Chloride	1-	Cl^-
Oxide	2-	O^{2-}
Sulfide	2-	S^{2-}
Phosphate	3-	PO_4^{3-}

Use the chart above to answer the following on a separate sheet of paper.

5. How many potassium ions are needed to balance the charge of one sulfide ion? Explain.
6. Predict the formulas for calcium chloride and potassium phosphate.
7. Name the following compounds: MgS , NH_4Cl , and K_2O .
8. Which ions in the table are polyatomic ions?

Building Vocabulary

Answer the following questions on a separate sheet of paper.

9. What is an ion?
10. What is an ionic bond?
11. What is the arrangement of ions in a crystal?