DATE: NAME: CLASS:

CHAPTER 3 Forming Ionic Bonds

BLM 1-33

Goal • Practise your skills and knowledge related to ionic bonding.

Questions

1. Use the words from the list to fill in the blanks in the paragraph below.

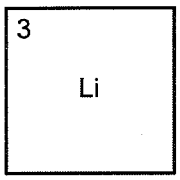
   attract, charge, electron, ionic bond, negative, negatively charged, opposite, positive, positively charged, transferred,

   (a) When an atom gains or loses a(n) _____, an ion is formed. All ions have a(n) _____.

   (b) Metals tend to form _____ ions. Non-metals tend to form _____ ions.

   (c) When a metal atom reacts with a non-metal atom, one or more electrons are _____, which results in the formation of ions. One of these ions will be _____ and one will be _____. Because of these _____ charges, the ions _____ each other, forming a(n) _____.

2. (a) Draw a model Bohr diagram for lithium in the space provided.

   (b) What process or change would turn this lithium atom into an ion?

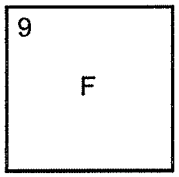
   _____

   (c) Would the ion that it forms be positively or negatively charged? Explain.

   _____

   _____

3. (a) Draw a Bohr model diagram for fluorine in the space provided.

   (b) What process or change would turn this fluorine atom into an ion?

   _____

   (c) Would this ion be positively charged or negatively charged? Explain.

   _____

   _____

4. Lithium and fluorine react to form lithium fluoride. Draw a diagram on the back of this page to show how these two atoms would react.

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CHAPTER 3

One Common Ion Charge

BLM 1-36

Goal • Practise writing the names and formulas of ionic compounds.

What to Do

Each of these compounds is composed of a positive metal ion and a negative non-metal ion. Complete the chart.

Elements	Ions (optional)	Formula	Name	Number of Atoms in Formula
lithium fluorine	Li^+ F^-	LiF	lithium fluoride	2
lithium oxygen	Li^+ O^{2-}	Li_2O	lithium oxide	3
sodium nitrogen				
magnesium chlorine				
calcium sulphur				
strontium phosphorus				
aluminum bromine				
silver nitrogen				
zinc iodine				
cesium selenium				
scandium sulphur				
sodium oxygen				
calcium fluorine				
gallium iodine				
aluminum sulphur				
strontium nitrogen				
potassium phosphorus				