

Activity: Building Covalent Compounds

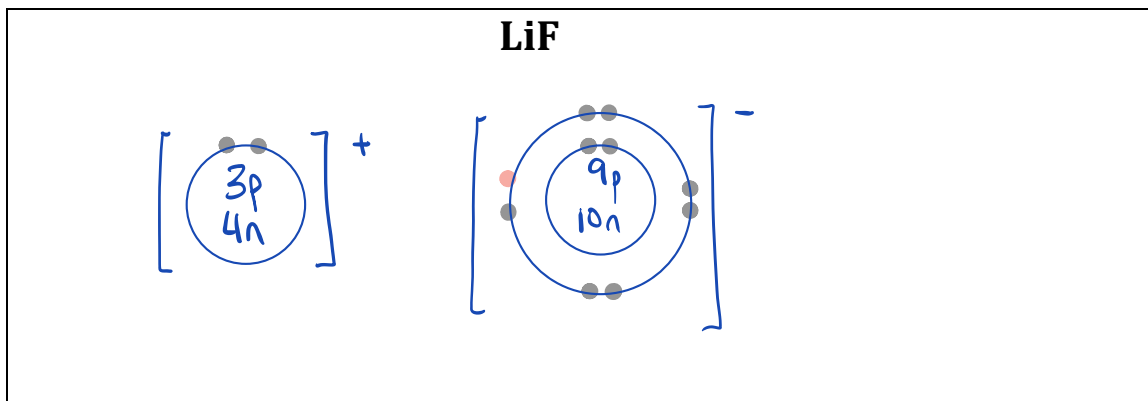
Name: *Key*
Date:
Block:

Part I: Review of Ionic Compounds

1. What type of elements (metals / non-metals) form an ionic compound?

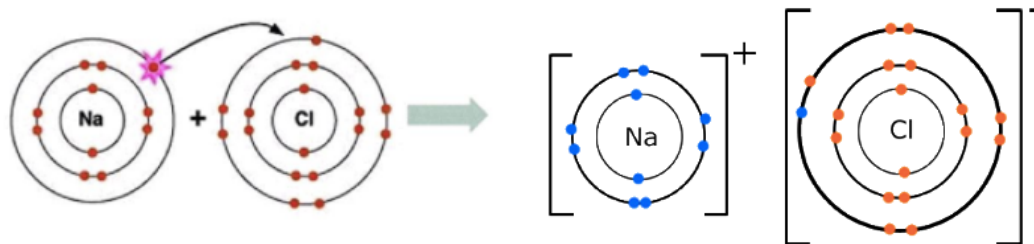
An ionic compound is made up of a metal (becoming a cation) and a non-metal (becoming an anion)

2. Draw a Bohr model of the ionic compound lithium fluoride (remember, this is *after* electrons have been transferred and ions have formed)

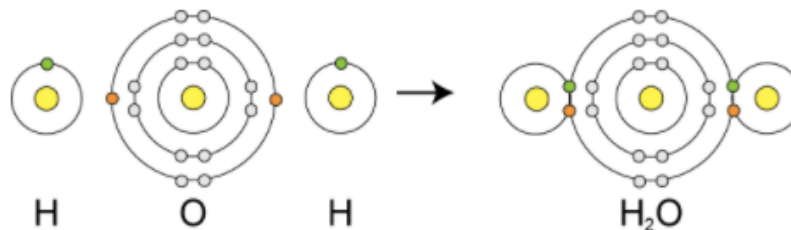


3. What differences can you spot between the formation of an ionic compound versus a covalent compound?

Ionic Compound Formation:



Covalent Compound Formation:



In an ionic compound, cations and anions are formed after electrons are transferred.

In a covalent compound, electrons are shared and no ions are formed.

Part II: Covalent Compounds

Using the provided materials, build covalent compounds and then draw their **Bohr models** on this sheet.

Hint #1: In covalent compounds, electrons are SHARED rather than transferred. No ions are made

Hint #2: Each spring represents two electrons that are shared between elements

Hint #3: Covalent compounds form individual molecules rather than a repeating lattice structure

Red: Oxygen
White: Hydrogen

Yellow: Sulfur
Green: Fluorine

Black: Carbon
Orange: Nitrogen

