

Chemical Bonding Learning Targets Ch. 9→11

By test time I should be able to...

1. determine whether atoms gain or lose electrons to become ions and write names and formula symbols to represent ions.
2. write formulas for and name simple ionic compounds and covalent molecules.
3. describe the difference between ionic, polar covalent, and nonpolar covalent bonds
4. use electronegativity to predict bond type.
5. represent ionic bonds with electron dot notation and explain how and why neutral atoms become ions to form ionic compounds.
6. construct and understand a Born-Haber cycle for an ionic compound
7. describe the difference between endothermic and exothermic energy changes
8. show/draw how atoms in a molecule covalently bond and be able to build models to represent molecules.
9. identify the shape of a molecule using VSEPR theory.
10. determine the polarity of molecules and draw dipoles on molecular structures to represent the polarity.
11. understand intermolecular attractive forces (i.a.f.).
 - describe how molecular polarity impacts the strength of i.a.f.
 - understand how i.a.f. determine many of the physical properties of a substance such as boiling point, evaporation rate, etc..
12. understand how bond type determines many chemical and physical properties of a substance.

