

Physical Science: Lecture

Notes: Ch5 L2

Name _____
Date _____

Lesson 2: Forming Solids

A. Metals

1. _____ make up about two-thirds of the elements and have many useful properties.
 - a. Metals are good _____ of heat and electricity because their electrons are free to move.
 - b. Metals have a _____ melting point and a _____ boiling point.
 - c. _____ is the ability of a material, such as metal, to be hammered or rolled into sheets.
 - d. _____ is the ability of a substance to be pulled into wires.
2. _____ of metal in solids pack together as closely as possible in a regular, three-dimensional pattern.
3. A(n) _____ is a bond formed when many metal atoms share their pooled electrons.
4. Metal atoms combine in regular patterns in which some _____ are free to move from atom to atom.
5. In a metal, individual atoms lose electrons to become positive _____.

B. Crystals

1. Crystals are regular, repeating arrangements of _____, _____, or _____.
2. Crystals can be held together by metallic, _____, or _____ bonds.
3. A(n) _____ is the smallest repeating pattern that shows how the atoms, ions, or molecules are arranged in a crystal.
4. One common crystal is table salt, also known as _____.
 - a. Sodium chloride (NaCl) is a(n) _____ crystal.
 - b. Ionic crystals are _____, unlike solid metals.

C. What is a polymer?

1. _____ are covalent compounds made up of many small, repeating units linked together in a chain.
2. A(n) _____ is a small molecule that forms a link in a polymer chain.
3. _____ is a synthetic polymer used for grocery bags and food wrap.
4. Organic polymers are polymers that contain the element _____ and are involved with life.
 - a. The monomer of a protein is a(n) _____, which includes carbon, nitrogen, and oxygen atoms.
 - b. _____ are organic polymers whose monomer is a sugar molecule called a monosaccharide.