

Assignment 7-1

Name _____

Class Period _____

Date _____

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1. What is **chemical bonding**?

2. Define the word **compound**.

3. What are **valence electrons**?

4. List the names of the elements (and their symbols) that generally do not form chemical bonds with other elements.

5. What is considered to be a **complete** outside energy level?

6. What condition exists when an atom has achieved stability as a result of a chemical reaction?

7. Explain why the electron configuration of helium makes it a safer gas to use in blimps and dirigibles.

Please continue on the other side.

8. Draw a "Bohr" style diagram of a calcium atom (Ca) showing the correct number of electron energy levels and the correct number of electrons in each energy level. See Figure 7-3 (argon) for an example of the type of diagram you should draw.

Label the following parts of your diagram: (You may use arrows from the terms listed below to the appropriate part of your diagram.)

- nucleus
- 1st energy level
- 2nd energy level
- valence electrons

9. Explain the term **valence number** .

10. What is the relationship of the valence number to the total number of valence electrons?

11. Explain the origin of the word **salt**?
