

Electrons and Energy Levels

(Chapter 11, section 1)

Name _____
Period _____

1. A _____ is a force of attraction that holds two atoms together as a result of the rearrangement of electrons between them.

2. _____ are areas of space in which electrons move around the nucleus.

3. How many electrons can be in the lowest energy level? The second energy level?

4. What causes a chemical bond?

5. _____ are the outermost electrons of an atom that participate in chemical bonding.

6. a) Explain how to use the periodic table to determine the number of valence electrons in the atoms of groups 1, 2, and 13-18.

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b) Which element is an exception and how many valence electrons does it have?

7. An _____ shows an atom's valence electrons around the symbol of the element.

8. Summarize the steps for writing electron dot diagrams.

9. a) When are atoms chemically stable? When are atoms chemically unstable?

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b) Which two atoms are exceptions and when are they chemically stable? Why?

10. What happens when an atom forms a bond? Why does this happen?