

5-1 Atoms, Bonding, and the Periodic Table pgs. 176-182

III.

Valence Electrons & Bonding

- ECQ1 – What are valence electrons? What does the number of valence electrons determine?
ECQ2 – What is an electron dot diagram?
ECQ3 – How many val. el. makes an element stable and unreactive?
ECQ4 – What is the exception to that rule?
ECQ5 – What is a chemical bond?
ECQ6 – What are the three things that can happen to form a chemical bond?

IV.

How the Periodic Table Works

- ECQ7 – Elements in group 1 have ____ valence electron.
Elements in group 2 have ____ . Group 13 - ____
Group 14 - ____ . Group 15 - ____ . Group 16 - ____
Group 17 - ____ . Group 18 - ____ . (except for Helium - 2)
ECQ8 – Why is group 18 called the inert gases?
ECQ9 – What do the halogens need to become stable? Are they reactive?
ECQ10 – What do the alkali metals need to become stable? Are they reactive?
ECQ11 – In general, the reactivity of metals ____ from left to right.
ECQ12 – Nonmetals combine with metals by ____ electrons.
Nonmetals combine with other nonmetals by ____ electrons.
ECQ13 – What is the most reactive element?
ECQ14 – Semimetals behave as either ____ or ____ .
ECQ15 – Is hydrogen a metal or nonmetal? Reactive or unreactive?

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