## Unit 3 - Periodicity & Bonding

In order to have the opportunity to retest, you must complete the following on a separate sheet of paper:

- 1. Reflect on why you are needing to reassess by answering the questions in the Reflection box.
- 2. Define or explain the important vocabulary/key concepts.
- 3. Reflect on your understanding of the material.
- 4. Write and solve a problem using each formula.
- 5. Watch each of the videos and answer the questions within them. Write your answers to the questions on your paper.

Bring your completed reassessment to SMART lunch tutorial before the next unit test to receive your retest.

Groups on the Periodic	Important Vocabulary
Table	1. Period
	2. Group/Family
	3. Metal
	4. Nonmetal
	5. Metalloid/Semi-metal
	Skills and Concepts
	Locations of groups:
	a. metals/nonmetals/metalloids
	b. alkali metals
	c. alkaline earth metals
	d. transition metals
	e. halogens
	f. noble gases
	Videos
	Groups of the Periodic Table (Honors): (5 Questions)
Periodic Trends	Important Vocabulary
	1. Trend
	2. Atomic Radius
	3. Ionization Energy
	4. Electronegativity
	Skills and Concepts
	Predict properties based on trends
	a. larger/smaller atomic radius
	b. higher/lower ionization energy
	c. higher/lower electronegativity
	Videos
	Periodic Trends: (6 Questions)

## **Ionic Bonds** Important Vocabulary 1. Ionic Bond 2. Cation 3. Anion 4. Valence Electrons Skills and Concepts 1. Write formulas for ionic compounds using charges on the periodic table to find subscripts 2. Write names of ionic compounds from the formulas 3. Write names and formulas for acids. Videos 1. <u>Ionic Bonding Intro</u> (6 Questions) 2. Naming Ionic Compounds (9 Questions) 3. Writing formulas for ionic compounds (6 Questions) 4. Naming Acids (7 Questions) **Covalent Bonds** Important Vocabulary 1. Valence Electrons 2. Covalent Bond 3. Lewis Structure 4. Lone Pair 5. Resonance Structure 6. VSEPR Theory 7. Polar Covalent Bond 8. Nonpolar Covalent Bond 9. Molecule Polarity 10. Intermolecular Forces (IMFs) a. Dispersion Forces b. Dipole-Dipole Interactions c. Hydrogen Bonding Skills and Concepts 1. Write formulas for covalent compounds 2. Write names of covalent (molecular) compounds from the formulas 3. Draw lewis structures 4. Draw resonance structures Determine VSEPR Geometry 6. Determine bond polarity 7. Determine molecular polarity 8. Determine which IMFs exist between molecules Videos: 1. Naming & Writing formulas for Molecular/ Covalent Compounds (4 Questions)

2. Bonding- Polar & Nonpolar bonds (5 Questions)

3. <u>Drawing Lewis Structures</u> (4 Questions)
4. Resonance Structures (3 Questions)
5. VSEPR Theory (9 Questions)
6. Molecular Polarity (6 Questions)
7. IMFs (4 Questions)
8. Effects of IMFs (4 Questions)