**Periodicity HW set**

IB Chem - Unit 1, Topic 3

**Topic 3: Periodicity**

* **3.1 The arrangement of elements in the periodic table helps to predict their electron configuration.**
* **3.2 Elements show trends in their physical and chemical properties across periods and down groups.**

**Read & Respond Notes:**

Topic 3.1 (I recommend some bundling here) **Due:\_\_\_\_\_\_\_\_\_**

Topic 3.2 **Due:\_\_\_\_\_\_\_\_\_**

**Problem Set:** Topic 3 Exercises #1-33 **Due:\_\_\_\_\_\_\_\_\_**

**Vocabulary:** Choose one of the vocabulary assignment options using the following **Due:\_\_\_\_\_\_\_\_\_**

vocabulary words.

Groups

Periods

Halogens

Noble gasses

Alkali metals

Lanthanoides

Actinoides

Periodicity

Nuclear charge

Shielding

Effective nuclear charge

Ionization energy

Electron affinity

Electronegativity

Delocalized

Stable octet

Halides

Precipitate

Giant ionic

Molecular covalent

Giant covalent

Amphoteric

Basic

acidic

**Analysis: Due:\_\_\_\_\_\_\_\_\_**

Figure 3.2 on page 94 tries to show how shielding can influence the effective nuclear charge felt by the outer electrons of an atom. Thinking about this explain how shielding, the size of an atom, and the type of element determines the differences and similarities in the trends of the chemical and physical properties of the group 1 (alkali) and group 17 (halogen) elements.

**Challenge Problem:** **Due:\_\_\_\_\_\_\_\_\_\_**

