Earth Science and Chemistry Final Review

Chemistry

1. How many protons, neutrons, and electrons does Mg have?
2. What is the difference between a group and a period?
3. What is the name of each of the following groups: 1, 2, 7, and 8?
4. Draw the electron dot structure (Lewis dot diagram) of every element in period 2. What do the dots represent? Label what the ionic charge would be for each.
5. What is the formula of the bonding of Li with P? What is the name of that formula?
6. What are the five properties of metals? What line divides metals from nonmetals on the periodic table?

 THE ELECTROMAGNETIC SPECTRUM

1. Does the left side or the right side have the shortest wavelength? Name at least 1 thing each section of the electromagnetic spectrum is used for.

 

1. Make a triple Venn diagram comparing and contrasting alpha, beta, and gamma radiation.
2. Explain what ‘238’ in Uranium-238 means. Take u-238 through a beta decay and alpha decay.
3. Define solid, liquid, and gas in terms of shape and volume.
4. What are the only 2 things that cause a chemical change?
5. What is the density of an ostrich egg with a volume of 315 cm3 and a mass of 700 g? Will the egg float in water?

Earth Science

1. What do greenhouse gases do to the atmosphere?
2. In what quadrant of the HR diagram do you find a cool, bright star? What is on the x and y axis of the HR diagram?



1. Explain red shift and what it proves.
2. What does the Big Bang theory explain?
3. What is the Doppler Effect?
4. What is the evidence that Earth’s continents used to be one supercontinent?
5. Draw diagrams of plate boundaries using arrows to represent convergent, divergent, sea-floor spreading, and subduction zones.
6. List each of the 8 natural hazards we talked about in class. Review how to read their scales.
7. Draw the life cycle of the stars. Label each section and give a brief description of what is going on in each.