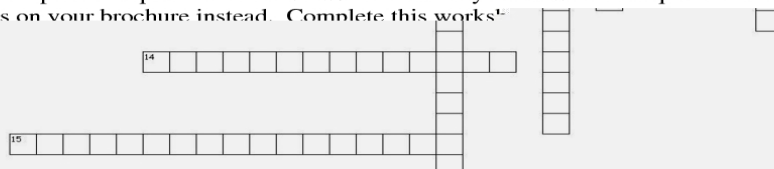


### Periodic Table Study Guide

**Directions:** Please use this packet as practice and review. DO NOT try to answer these questions during presentations. Take notes on your brochure instead. Complete this worksheet.



**Across**

2. In cellular respiration, series of anaerobic chemical reactions in the cytoplasm that break down glucose into pyruvic acid; forms a net of two ATP molecules.
10. Chemical process where mitochondria break down food molecules to produce ATP; the three stages are glycolysis, the citric acid cycle, and the electron transport chain.
12. Molecules that absorb specific wavelength of sunlight.
13. In cellular respiration, series of reactions that break down glucose and produce ATP; energizes electron carriers that pass energized electrons on to the electron transport chain.
14. Process by which autotrophs, such as algae and plants, trap energy from sunlight with chlorophyll and use this energy to convert carbon dioxide and water into simple sugars.
15. Series of proteins embedded in a membrane along which energized electrons are transported; as electrons are passed from molecule to molecule, energy is released.

**Down**

1. Anaerobic process where cells convert pyruvic acid into carbon dioxide and ethyl alcohol; carried out by many bacteria and fungi such as yeasts.
3. Energy-storing molecule in cells composed of an adenosine molecule, a ribose sugar and three phosphate groups; energy is stored in the molecule's chemical bonds and can be used quickly and easily by cells.
4. Phase of photosynthesis where light energy is converted to chemical energy in the form of ATP; results in the splitting of water and release of oxygen.
5. Electron carrier molecule; when carrying excited electrons, it becomes NADPH.
6. Reaction taking place in the thylakoid membranes of a chloroplast during the light-dependent reactions where  $H_2O$  is split into  $\frac{1}{2}O_2$  and  $2H^+$ .

- 5- Pent
- 6- Hex
- 7- Sept
- 8- Oct
- 9- Ein

- 0- Nil
- 1- Un
- 2- Bi
- 3- Tri
- 4- Quad

7. What is the atomic number of Unnilquadium? \_\_\_\_\_
8. \_\_\_\_\_ The periodic law states that the physical and chemical properties of elements are periodic functions of their: (a) masses, (b) atomic numbers, (c) radii, (d) structures.
9. \_\_\_\_\_ All of the following follow the periodic law except: (a) valence electrons, (b) electron configurations, (c) chemical and physical properties, (d) atomic number, (e) symbols and names.
10. In the periodic table, the atomic masses of Te and I decrease rather than increase, while their atomic numbers increase. This phenomenon happens to other neighboring elements in six other places on the periodic table. Name two of them.

**Alkali/Alkaline Earth Metals**

1. Color the alkali metals **orange** and the alkaline earth metals **green** on the periodic at the back of the packet. Draw a key at the bottom of the page that identifies the meaning of each color. Continue