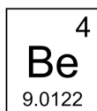


Honors Biology Summer Preparation Assignment

Directions: This assignment will be collected the beginning of the first week of school, and a test over this material will be given at the end of the first week. Consult the internet, friends, and books to find this important information. Have a great summer and happy preparation! Mrs. Mulder

1. Define a monosaccharide, disaccharide, and polysaccharide.
2. Be able to recognize sucrose, glucose, and fructose molecules, and the basic structure of a lipid and a protein.
3. Compare the elemental makeup of a carbohydrate, lipid, protein, and an amino acid.
4. Describe the basic structure of nucleic acids, specifically the atoms that make up these molecules.
5. Compare RNA and DNA molecules. Include types of bonds and atoms that make up these two molecules.
6. Describe and recognize the difference between model, law, and theory.
7. Define and identify independent and dependent variables.
8. Explain the difference between an element, atom, molecule, and compound.
9. What are chemical and physical changes? Give examples.
10. Draw dot diagrams of atoms and molecules. For example: H, Na, Cl, H₂O.
11. What are ionic, covalent, and peptide bonds?
12. Explain the pH scale and compare the acidity of compounds having different pH values. For example: How do compounds with a pH of 2, 7, and 11 compare?
13. Describe the difference between polar and non-polar compounds and give an example of each.
14. Describe the law of conservation of matter.
15. What is another name for the rows and columns on the periodic table?
16. What basic information does an element block provide you on the periodic table?

Example:



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