Biology Review Day 1

Answer your questions on your own paper! These are LONG answer questions!

1. What is science?
2. What is scientific hypothesis?
3. What is scientific theory?
4. What is scientific law?
5. How do I conduct a scientific investigation? List the parts and be able to identify them.
6. What atoms are water made of? 
7. How do the special properties of water contribute to Earth’s suitability as an environment for life?
8. How does the arrangement of covalent bonds within a water molecule lead to its polar property?
9. What accounts for water’s properties of adhesion and cohesion?
10. The four major macromolecules are carbohydrates, lipids, nucleic acids, and proteins. What are their examples of each, their monomers, and their functions?
11. What is an enzyme and how does it work?

*Use the clues and words to help you write the vocabulary terms from the chapter in the blanks. You may use a word once or not at all.*

**controlled experiment hypothesis observation theory**

**1.** process of noticing or describing events in an orderly way

**2.** testable, scientific explanation for observations

**3.** well-tested explanation supported by many observations

**4.** A logical interpretation or idea based on prior knowledge or experience is a(n)

**a.** hypothesis. **c.** inference.

**b.** observation. **d.** theory.

**5.** Starches and sugars are examples of what group of organic compounds?

**a.** nucleic acids **c.** proteins

**b.** lipids **d.** carbohydrates

**6.** Which of the following is(are) a function of nucleic acids in living things?

**a.** stores and transmits genetic information

**b.** stores energy

**c.** transports substances into cells

**d.** serves as chemical messengers

**7.** Which of the following statements about water is true?

**a.** A water molecule has an overall positive charge.

**b.** A water molecule is polar.

**c.** A water molecule has more protons than electrons.

**d.** Because of an uneven distribution of electrons between atoms, water molecules cannot form

**8.** Which of the following is a well-tested explanation that accounts for lots of observations and hypotheses?

**a.** hypothesis

**b.** controlled experiment

**c.** theory

**d.** inference