Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Pd: \_\_\_\_\_\_

Scientific Method/Characteristics of Life Quiz

1. A student wonders, “Will this fertilizer make my plants at home grow taller?” What should she do in order to answer this question scientifically? (2 pts)  
   A) Guess  
   B) Ask her teacher  
   C) Design an experiment  
   D) Call the fertilizer company and ask them
2. Fill in the blanks (Hint: think about the scientific method!): (3 pts)  
   A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ predicts the outcome of an experiment. It is like an educated guess. After many experiments have been performed and a lot of evidence has been collected, scientists may be able to make a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that explains why something happens. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are statements that are universally true and usually have mathematical formulas.
3. Your friend wonders, “Do squirrels like acorns better or walnuts better?” Answer the following questions:  
   A) What might his hypothesis be? (2 pts)  
     
   B) How could he set up his experiment? Be as clear as possible. (3 pts)
4. What is a variable? (1 pt)
5. All organisms are made of small units called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. (1 pt)
6. List two differences between sexual reproduction and asexual reproduction. (2 pts)
7. A plant grows in the direction of light. What characteristic of life is this an example of? (1 pt)
8. The thermostat in your house keeps the temperature inside consistent. This is similar to what characteristic of life? (1 pt)
9. When does your body break down molecules in order to get energy? (1 pts)
10. Where does all of the energy on Earth come from? (2 pts)
11. Give one example of how living things are organized. You must be specific in order to get credit. (2 pts)
12. Are all cells identical? Support your answer with a specific example in order to get credit. (2 pts)