Chapter 1 Study Guide – Scientific Method / Characteristics of Life

1. How is a *hypothesis* different from a *scientific theory*? _____

_____

2. Know the steps of the Scientific Method

Q/P _____

R_____

H _____ In what format is this usually written?_____

E _____

R _____

C _____

3. The following terms are related to experimental design, match them with the definitions.

1. variable _____	a. any variable that is not being tested
2. control _____	b. the response
3. independent variable _____	c. the variable being tested in the experiment
4. dependent variable _____	d. any factor that can change an experiment
5. confounding variable _____	e. part of the experiment that is not exposed to the variable / standard of comparison

4. Give an example of a quantitative and qualitative observation

   a. qualitative - _____

   b. quantitative- _____

5. **Review your Controls and Variables Worksheet (Simpsons) you will need to be able to read about an experiment and identify the control, independent variable, and dependent variable**.

6. Match the following terms, relating to the characteristics of life, with their definitions/statements about that characteristic.

1. homeostasis _____	a. can be unicellular or multicellular
2. cells _____	b. asexually or sexually
3. respond to environment _____	c. react to stimuli
4. metabolism _____	d. use raw materials for energy and life processes (chemical reactions within body)
5. grow and develop _____	e. change within lifetime
6. adapt/evolve _____	f. maintain a stable internal environment
7. reproduce _____	g. change over many generations

7. ***Define and know the following vocabulary terms.***

Biology - _____
Hypothesis- _____
Unicellular- _____
Multicellular- _____
Asexual reproduction- _____
Sexual reproduction- _____
Stimulus- _____
Metabolism- _____
Homeostasis- _____

8. **Know** and **understand** the importance of Franciso Redi's experiment. Write a brief explanation of his experiment below and what it proved.

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******Keep in mind that this is only a study guide, your packet of work is also a study guide. Review all assignments we have done for this unit!***