

Chapter 1 Review Guide

1. What is the definition of Biology?
2. What are the steps of the scientific method?
3. Define quantitative data and give an example.
4. Define qualitative data and give an example.
5. A student wants to see if tomato plants grow taller with music. She has ten tomato plants in a room with classical music and another ten tomato plants in a room without music. The student ensures that the plants have adequate sunlight and water, and allows them to grow for 4 weeks.
 - a. What is the independent variable?
 - b. What is the dependent variable?
 - c. What is the control group?
 - d. List some constants of the experiment.
6. How is an inference different from an observation?
7. What are the eight characteristics of living things?
8. Define homeostasis and give an example.
9. Give an example of how our snail responded to a stimulus in our lab.
10. Define metabolism.
11. Before the Industrial Revolution, a dark variety of peppered moth only made up 2% of the population of peppered moths, with the other 98% were light colored. After the revolution, the dark peppered moths made up 95% of the population of moths, with the light peppered moths being 5%. The light colored moths stood out on the dark trees and were eaten by predators. This story is an illustration of ____.

12. Graph the following information for the effect of fertilizer on plant growth:

	Fertilized Soil	Unfertilized Soil
Plant Growth (cm)	100	70

13. What conclusion can you draw from the data given in the above experiment?
14. Identify the following for the above experiment:
 - a. What is the independent variable?
 - b. What is the dependent variable?
 - c. What is the control group?
15. What units are used in the metric system to measure:
 - a. Mass
 - b. Length
 - c. Volume
 - d. The length of a pencil
 - e. Your height
 - f. The amount of liquid in a bottle of water