

Chapter 1

Section 1

1. science – A way of learning about the natural world and the knowledge gained through the process.
2. observing – The process of using one or more of your senses to gather information.
3. quantitative observation – An observation that deals with a number or amount.
4. qualitative observation – An observation that deals with characteristics that cannot be expressed in numbers. It is also the use of the five senses.
5. inferring – The process of making an inference, an interpretation based on observations and prior knowledge.
6. predicting – The process of forecasting what will happen based on past experience or evidence.
7. classifying – The process of grouping together items that are alike in some way.
8. making models – The process of creating representations of complex objects or processes.
9. scale model – A model that accurately shows the proportions between its parts.

Section 2

1. life science – The study of living things.
2. biology – The study of life.
3. organism – A living thing.
4. development – The process of change that occurs during an organism's life to produce a more complex organism.
5. structure – The way an organism is put together as a whole.
6. function – A process that enables an organism to survive.
7. complementary – Any two colors that combine to form white light or black pigment.

Section 3

1. scientific inquiry – The diverse ways in which scientists study the natural world and propose explanations based on evidence they gather.
2. hypothesis – A possible explanation for a set of observations or answer to a scientific question; must be testable.
3. variable – A factor in an experiment that can change.
4. controlled experiment – An experiment in which only one variable is manipulated at a time.
5. control – The parts of an experiment to which you can compare the results of the other tests.
6. manipulated variable – The one factor that a scientist changes during an experiment; also called the independent variable.
7. responding variable – The factor that changes as a result of changes to the manipulated, or independent, variable in an experiment; also called dependent variable.
8. operational definition – A statement that describes how to measure a particular variable or how to define a particular term.
9. data communicating – The process of sharing facts, figures, and other evidence gathered through observations to others through writing and speaking.