

Key

IDENTIFYING VARIABLES

For each testable question, underline the independent variable, circle the dependent variable, and list 3 constant/control variables. Then, write a hypothesis or prediction.

Independent Variable- One thing that the experimenter changes on purpose

Dependent Variable- Something that changes as a result of the independent variable (often what is measured)

Constant/Control Variable - Something kept the same on purpose

1. How does the distance from an eye chart affect the number of letters that are recognized on a line?

Constant/Control Variables: eye chart, position of viewer, light in room

Hypothesis/Prediction: _____

2. How does the amount of light affect the growth of a plant?

Constant/Control Variables: type of plant, amount of water, type/amount of soil

Hypothesis/Prediction: _____

3. How does the amount of oxygen in the water affect the oyster population?

Constant/Control Variables: temperature of water, location, time of year

Hypothesis/Prediction: _____

4. How will the amount of fertilizer used on a field affect the number of earthworms found there?

Constant/Control Variables: type of soil, temperature, amount of water

Hypothesis/Prediction: _____

5. How does the length of a string affect the number of times a pendulum will swing back and forth in 10 seconds?

Constant/Control Variables: mass of pendulum, distance pulled back, height of pendulum

Hypothesis/Prediction: _____

6. How does the size of a bicycle tire affect the distance it will travel when it is pedaled in a given number of times?

Constant/Control Variables: inflation of tire, force of pedal, terrain (grass vs. blacktop)

Hypothesis/Prediction: _____