Name _____ Date _____

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: _____

   Hypothesis/Prediction: _____

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

   Constant/Control Variables: _____

   Hypothesis/Prediction: _____

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

   Constant/Control Variables: _____

   Hypothesis/Prediction: _____

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

   Constant/Control Variables: _____

   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: _____

   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: _____

   Hypothesis/Prediction: _____

Name _____ Date _____

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underline the independent variable, circle the dependent variable, and list 3 constant/control variables.
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Independent Variable- One thing that the experimenter changes on purpose
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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: _____

