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: **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: _____

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