

Identifying Variables Worksheet #1 (Page 1)

Name: _____ Date: _____ Block: _____

Directions: For the following experiments identify the variables and the control/experimental group.

1. Different rose bushes are grown in a greenhouse for two months. The number of flowers on each bush is counted at the end of the experiment.

Independent Manipulated Variable _____

Dependent Responding Variable _____

Constants _____

Control Group _____

Experimental Group _____

2. You water three sunflower plants with salt water. Each plant receives a different concentration of salt solution. A fourth plant receives pure water. After a two- week period, the height is measured.

Independent Manipulated Variable _____

Dependent Responding Variable _____

Constants _____

Control Group _____

Experimental Group _____

3. Three redwood trees are kept at different humidity levels inside a greenhouse for 12 weeks. One tree is left outside in normal conditions. Height of the tree is measured once a week.

Independent Manipulated Variable _____

Dependent Responding Variable _____

Constants _____

Control Group _____

Experimental Group _____

4. Pea plant clones are given different amounts of water for a three-week period. Pea plant number one receives 400 milliliters a day. The second pea plant receives 200 milliliters a day. The third pea plant receives 100 milliliters a day. The fourth pea plant does not receive any extra water; the plant only receives natural ways of receiving water. The height of pea plants is recorded daily.

Independent Manipulated Variable _____

Dependent Responding Variable _____

Constants _____

Control Group _____

Experimental Group _____

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5. One tank of gold fish is fed the normal amount of food once a day, a second tank is fed twice a day, and a third tank four times a day during a six week study. The mass of each fish is recorded daily.

Independent Manipulated Variable _____

Dependent Responding Variable _____

Constants _____

Control Group _____

Experimental Group _____

6. You decide to clean the bathroom. You notice that the shower is covered in a strange green slime. You decide to try to get rid of this slime by adding lemonade. You spray half of the shower with lemonade and spray the other half of the shower with water. After 3 days of spraying equal amounts 3 times a day, there is no change in the appearance of the green slime on either side of the shower.

Independent Manipulated Variable _____

Dependent Responding Variable _____

Constants _____

Control Group _____

Experimental Group _____

7. You decide to clean your bedroom. You notice that your floor is covered with clothes. You decide to try to get rid of the clothes by throwing the clothes into the air. You throw clothes from a 1/3 of the room into the closet and a second 1/3 of the room straight up in the air. The last 1/3 of the room you leave the clothes on the floor. After 30 minutes of "cleaning", the floor of the room is now visible.

Independent Manipulated Variable _____

Dependent Responding Variable _____

Constants _____

Control Group _____

Experimental Group _____

8. You want to test which size of soccer (football) ball is easiest to juggle with your feet. You test a size 3, size 4 and a size 5 ball. You count the seconds the ball stays in the air for each of the trials. You allow yourself to use both of your feet, knees, and head to juggle the ball.

Independent Manipulated Variable _____

Dependent Responding Variable _____

Constants _____

Control Group _____

Experimental Group _____