

NAME _____

NUMBER _____

IV DV CONTROLS Worksheet

Independent, Dependent Variables and Controlled Variables

Independent Variable – measurement or condition in the experiment that the experimenter changes

Dependent Variable – measurement or condition in the experiment that is measured or recorded.

Controlled Variables – Other variables in the experiment that must be kept the same so that the independent variable is the only variable that is changing or causing anything to happen.

Remember in a controlled experiment there can be only ONE independent variable.

Key words to help identify the IV and DV

Independent Variable	Dependent Variable
If I do this _____?	I wonder what will happen?
The Cause	The effect
What you are testing	The result

Read the experiment below. Identify the IV and DV. List 2 other variables to control (CONTROLS) to make a controlled experiment.

EXAMPLE. Food coloring is added to cold water and hot water. Compare the rate of dispersion (how fast it spreads out?) between cold water and hot water.

IV – the temperature of the water.

DV – The rate dispersion of the food coloring

CONTROLS – Amount of water – size of beaker – height that food coloring was dropped

How would you measure the IV and DV?

Example – A student wants to measure the absorbency of paper towels. The IV would be _____ and the DV would be _____. How do you measure the absorbency?

IV How measured? – Charmin - Bounty – Best yet

DV How measured? – 3 possible choices

1. Dunk – Measure the amount of water that remains after a crumpled paper towel has been placed in 25 ml of water for five minutes.
2. Pour – Measure the amount of water that collects after 25 ml of water has been poured through a crumpled paper towel.
3. Lift – measure the height that water reaches after the end of a folded paper towel has been inserted in water for 15 minutes.

1. How will the growth of tomato plants be affected by water?

IV _____ DV _____

CONTROLS 1. _____ 2. _____

IV How measured? _____

DV How measured? _____