* **Manipulated Variable** – something that is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ by the \_\_\_\_\_\_\_\_\_\_\_\_\_
  + What is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + What is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* **Responding Variable** – something that might be affected by the \_\_\_\_\_\_\_\_\_\_\_\_\_ in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ variable.
  + This is what you \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
  + This is what you \_\_\_\_\_\_\_\_\_\_\_\_\_\_ during an experiment.
  + The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ collected during the investigation.
* **Controlled Variable** – a variable that is \_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
  + Also called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + Allow for a “\_\_\_\_\_\_\_\_\_\_\_ test”

**Examples**

1. Students of different ages were given the same jigsaw puzzle to put together. They were timed to see how long it took to finish the puzzle.

* What is the **manipulated variable**? (what was the scientist testing)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* What is the **responding variable**? (what is he measuring during the test?)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* What were the **controlled variables**? (constants)
  + All students would be tested with the same \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
  + Same \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of students in each age group.

1. Students test this question: The higher the temperature of water, the faster an egg will boil.

* What is the **manipulated variable**? (what is the student changing for each group of eggs?) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* What is the **responding variable**? (what are they measuring?) \_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* What variables would you need to **control** to make it a **fair test**? (constants)
  + Egg \_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_
  + Amount of \_\_\_\_\_\_\_\_\_\_\_\_\_
  + Type and size of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + Type and size of \_\_\_\_\_\_\_\_\_\_\_\_.

1. Which stain remover works the best, oxiclean or shout?
   * **Manipulated variable: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
   * **Responding variable**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   * **Controls**: (constants)
     + Size and type of \_\_\_\_\_\_\_\_\_\_
     + Amount of \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_
     + \_\_\_\_\_\_\_\_\_\_\_\_\_ procedure
     + Type of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_