1. Independent Variable

- The factor that changes in an experiment.

Group A is not treated with fertilizer and Group B is.

The independent variable is the fertilizer.

2. Dependent Variable

- What you measure in an experiment.

The plants are measured weekly.

The dependent variable is the plant growth.

3. Controlled Variable

- Factors in an experiment that are held constant.

The plants are planted in the same pots with the same soil. They are given the same amount of water and are grown in the same area.

The controlled variables are same pots, soil, amount of water, and the area the plants were grown in.

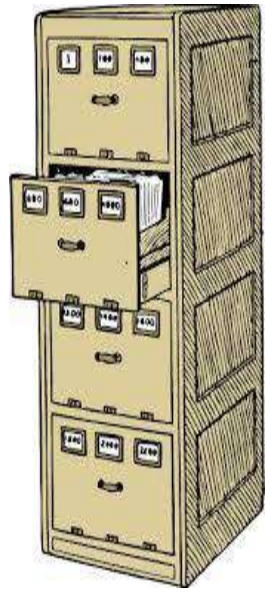
4. Control

- A group in a scientific experiment where the factor being tested is not applied.

Group A did not receive the fertilizer and Group B did.

The control is Group A because it did not receive the fertilizer.

- Mr. Smith thinks that a special juice will increase the productivity of workers. He creates two groups of 50 workers each and assigns each group the same task of filing papers. Group A is given the special juice to drink while they work. Group B is not given the special juice. After an hour, Mr. Smith counts how many papers have been filed.



1. What is the dependent variable?_____
2. What is the independent variable?_____
3. What is the control?_____
4. List a controlled variable._____

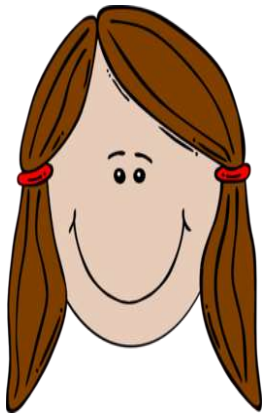
- A clown was told that a certain itching powder was the newest best thing on the market. It even claims to cause 50% longer lasting itches. Interested in this product, he buys the itching powder and compares it to his usual product. One test subject (A) is sprinkled with the original itching powder, and another test subject (B) is sprinkled with the new itching powder. They are both sprinkled with the same amount of itching powder. The clown observes both subjects to see which one has the longest itches.

1. What is the control?_____
2. What is the independent variable?_____
3. List a controlled variable._____
4. What is the dependent variable?_____

- Reverend Blair thinks that his special herbal tea gives him a burst of energy whenever he drinks it and he wants to test it out on his volunteer group of cleaners, who came to give the church a good spring clean. He gave half of the cleaners his special herbal tea and the other half just water. He set them to work, dividing the church down the middle to see who would get their half cleaned first. The cleaners were all the same age and each group had the same amount of men and women.

1. What is the independent variable?_____
2. What is the dependent variable?_____
3. What are his controlled variables?_____
4. What is the control?_____

- Lisa is working on a science fair project. Her task is to answer this question: Does Beauty Locks (which is a commercial hair product) affect the speed of hair growth? She performs the experiment on her sister. She treats half of her hair with the Beauty Locks and the other side is left untreated. She applies the Beauty Locks every day for a month. At the end of the month she measures the hair on each side of her sister's head to see if there is a difference in hair growth.



1. What is the control?_____
2. What is the dependent variable?_____
3. List a controlled variable._____
4. What is the independent variable?_____