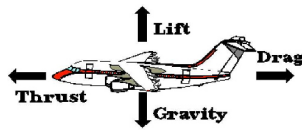
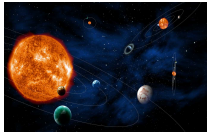


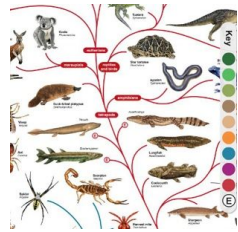
Grade Science 6

Space



Flight

Variety of Life



Electricity





Brain Storm



What words, pictures or stories do you associate with the word "Science"?

Group Work

REVIEW

Scientific Method



Has 7 steps

1) Ask a **Question** (It must be **Testable**)

-Include "Which", "Do/Does", "How", "What", "Why"?

-To find an answer you must do a test and the retest

2) Make a **Hypothesis** - Write what you think you will find out, and why you think this.(or what you think the answer will be). Is there a way to test you hypothesis.

-You now have to design an experiment to test your hypothesis

3) **Design an Experiment** - what are you going to do to test your hypothesis. Here you must state the variables. (SEE NEXT PAGE)

4) **List Materials** - list all the materials that you will use in the investigation

5) **Procedure** - Carry out the investigation and make a detailed list of steps in which you followed .

6) **Results/observations** - Record what you observed when you carried out the investigation/procedures

7a) **Conclusion** - From what you observed how would you answer your original question. Was your hypothesis correct? Give reasons of why or why not.

Once you have completed the scientific method you must:

7b) -**Communicate** your results and conclusions with others

- If possible, **relate** what you have learned to the world outside the classroom.

Variables in Science Experiments

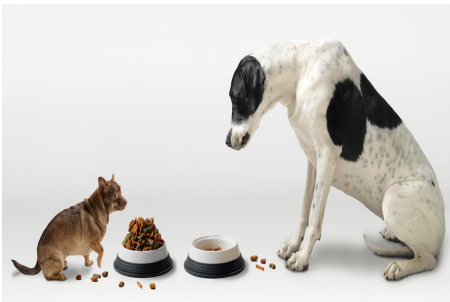
A **variable** is any factor, trait, or condition that can exist in **different amounts** or types.

An experiment usually has **3** kinds of variables **in Experiments**

1) **independent**, 2) **dependent**, and 3) **controlled**.

1) **Independent variable** is the *one* that is changed by the scientist.

Why just one? Well, **if you changed more than one variable it would be hard to figure out which change is causing what you observe.**



For example, what if our scientific question was: "How does the size of a dog affect how much food it eats?"; then, during your feeding experiments you changed both the size of the dog and the time of day the dogs were fed. The data might get a bit confusing — did the larger dog eat less food than the smaller dog because of his size or because it was the middle of the day and dogs prefer to eat more in the morning? Sometimes it is impossible to just change one variable, and in those cases, scientists rely on more-complicated mathematical analysis and additional experiments to try to figure out what is going on.