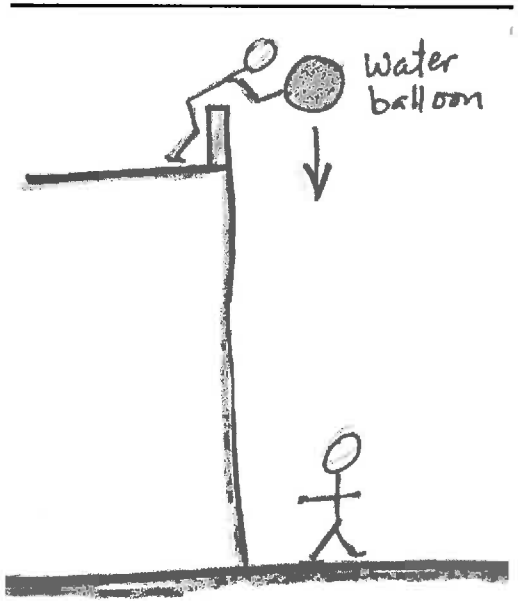
Bugs-O-Copter Experiment

Learning Objective: To practice controlling variables

Learning Outcome 1: Identifying variables

Learning Outcome 2: To determine the rate of descent

Gravity is a force that pulls 2 objects toward each other. Anything that has mass also has a gravitational pull. The more mass an object has the greater the gravitational pull.



Data

There are 2 types of data *Quantitative* and *Qualitative*.

Quantitative= Quantities

Examples of Quantitative Data

Quantitative data can be expressed as numbers. If you can measure it, it can be Expressed as a quantity.

- Height
- weight
- number of objects
- volume
- temperature
- pressure
- price
- speed
- percentages

Qualitative Data

Qualitative =Qualities

Qualitative data is defined as the **data** that approximates and characterizes. ... This **data** type is non-numerical in nature. This type of **data** is collected through methods of observations,

Examples of Qualitative Data

- How does it move? wobble , spins *fast/ slow*
- What direction does it move
- feelings and emotions
- Texture
- Flavor
- color (unless it can be written as a specific wavelength of light)

Parameter

A **parameter** is a quantity that influences the output or behavior of the experiment.

Hints to be successful:

1. Follow the directions!
2. Follow the directions!
3. Cut each bug neatly from the sheet-o-bugs (do not cut off the ears) See example.
4. Write the description of each bug (1-5) Look at the length of the ears, width of the ears, and shape of the body (tall vs thin etc)
5. Drop the bug-o-copter from the same height each time.
6. Record the 2 qualitative observations for each Bug-O-Copter
7. Record the time for each bug for 5 trials
8. Use Online Stopwatch to get your timed data (click on the link)
9. Find the average (add up the 5 trials and divide by 5)
10. Follow the directions.
11. Answer the questions after collecting data

Cut on the lines…..