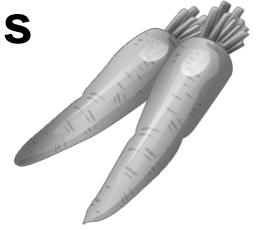


# The Occurrence of Water in Living Things



## Background:

1. All living organisms consist mostly of water.
2. The adult human body is about 60% water, by weight, and 75% by volume.
3. As much as 95% of the weight of some plants is due to the water they contain.

**Experimental Question:** Which organic material has the greatest percentage of water: grass, grapes, or carrot?

**Hypothesis:** \_\_\_\_\_

\_\_\_\_\_

**Independent Variable:** \_\_\_\_\_

**Dependent Variable:** \_\_\_\_\_

**Control:** \_\_\_\_\_

**Constants:** \_\_\_\_\_

## Materials:

- Balance
- Grass clippings
- Grapes
- Carrot
- Newspaper

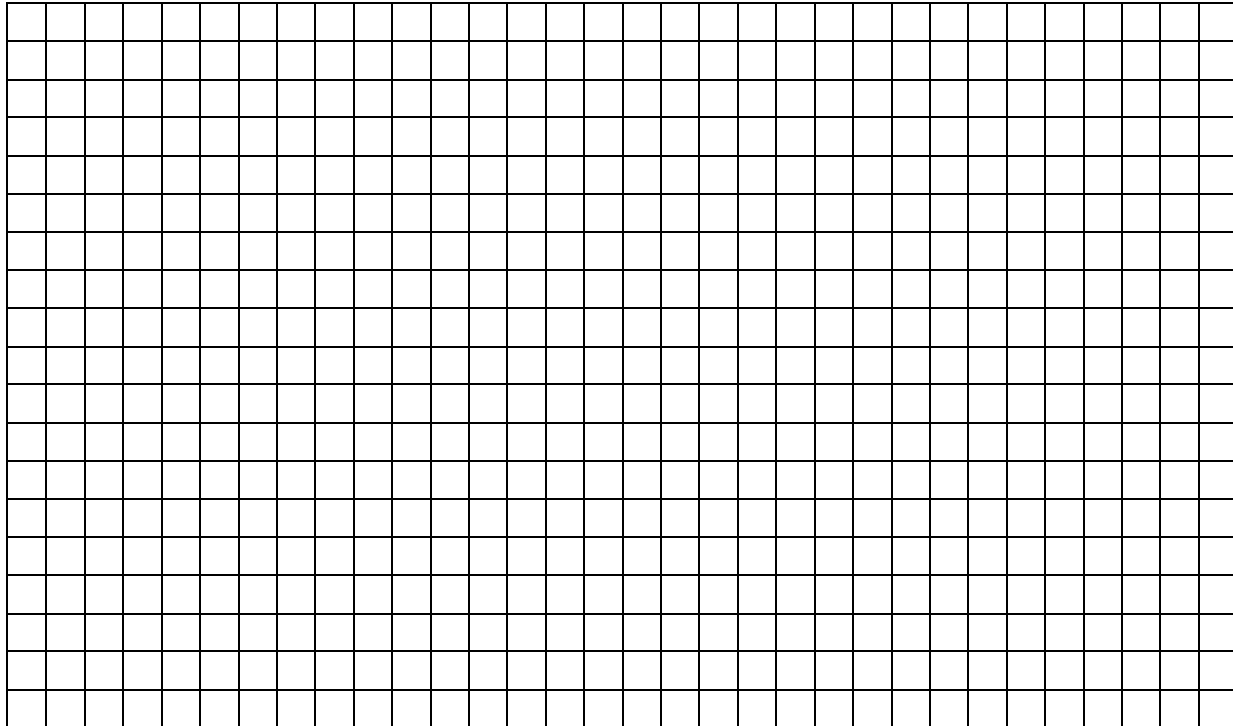
## Procedure:

1. Make sure the balance is zeroed.
2. Weigh a handful of grass clippings then set them on a paper towel to dry. Record weight in the data table below.
3. Measure the weight of a grape, then cut it in half and place on paper towel to dry. Record weight in the data table below.
4. Measure the weight of a carrot then cut into strips and set out to dry. Record weight in the data table below.
5. The grass, grapes, and carrots will be left to dry until next class.
6. After drying, weigh the grass, grapes, and carrots separately and record data.
7. Subtract the dried weight from the fresh weight to calculate the total water lost.
8. Calculate the percent water in each item by using the equation= 
$$\frac{\text{Total grams of water lost}}{\text{Weight of fresh}} \times 100$$

**Data Table**

Item	Mass- Fresh (g)	Mass- Dried (g)	Total water lost (g)	Percent (%) Water
grass				
grapes				
carrot				

**Graphing:** Graph percent water of each item. Don't forget to label graph, label axis, number axis, etc.



**Analysis**

1. Why was it necessary to cut the items into strips?
2. Which material contained the most water (highest percentage)?
3. Grass is a leaf, grapes are fruits, and a carrot is a root. Based on the data of this lab, do different parts of the plant contain more water than others? **Suggest a reason for this.**
4. A bag of popcorn kernels weighs 22 grams, and after popping them, the popcorn is weighed. The weight of the popcorn is 16 grams. Explain why the popcorn weighs less than the popcorn kernels.