

## Lab Safety Rules

1. Always follow teacher instructions.
2. Do not play with lab equipment.
3. Never eat or taste things in the lab.
4. Work quietly with partners.
5. Clean up after myself and partners.
6. Report any injuries/accidents.



## The Scientific Process in Parts

### 1. Question

Experiment:

Each of five tomato plants were placed under a different color light for 12 hours a day (same height, same soil & water).

1. What is the question being tested by this experiment?

### 2. Hypotheses

Experiment:

Each of five tomato plants were placed under a different color light for 12 hours a day (same height, same soil & water).

2. If each of 5 plants were placed under a different colored light, then ...?

### 3. Variables

Experiment:

Each of five tomato plants were placed under a different color light for 12 hours a day (same height, same soil & water).

3. a. controls      c. independent variable  
b. constants      d. dependent variable

### 4. Data

Experiment:

Each of five tomato plants were placed under a different color light for 12 hours a day (same height, same soil & water).

4. a. What data will be collected?  
b. How will the data be organized?

### 5. Analysis/Conclusion

Experiment:

Each of five tomato plants were placed under a different color light for 12 hours a day (same height, same soil & water).

5. a. What did the data show?  
b. Did you answer the question?  
c. Did you prove your hypotheses correct?  
d. What future experiments should be done?

### Kaleidoscope Milk Lab



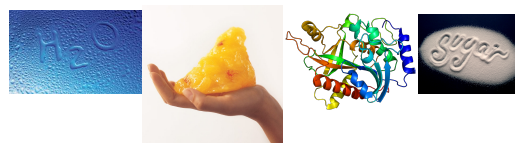
### Purpose/Objective

- To figure out what effect two mystery solutions (A and B) have on milk of different fat content (whole, nonfat)



### What are the major components (ingredients) in milk?

- Mostly water
- Equal parts of fat, protein, and sugars
- Vitamins and minerals



## What are the major components in food coloring?

- Mostly water with added dye particles



## What are the differences between the two types of milk you will test in this lab?

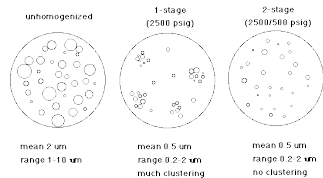
- Nonfat milk contains 0 g fat per 250 mL serving
- Whole milk contains 8 g fat per 250 mL serving



## What is homogenization?

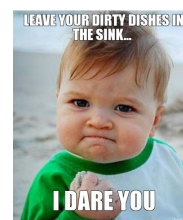
- Breaks up fat into small fat globules and spreads them throughout the milk

The Effects of 2-stage Homogenization on Fat Globule Size Distribution as Seen Under the Light Microscope



## How does dishwashing soap clean your dirty dishes?

- Soap cleans dishes by breaking up fat or grease



## Kaleidoscope Lab

1. question
2. hypothesis
3. variables
4. data (observations)
5. analysis/conclusion