

## Station 1

### Mass

- Find the individual mass of three of the objects. Record the masses (in grams) in the data table on your lab sheet.

## Station 2

# Volume

- Use the CENTIMETER side of the ruler to find the length of each side of the wooden block then use the volume formula to calculate volume.
  - $\text{Volume} = \text{length} \times \text{width} \times \text{height}$
- Which lab tool would you use to measure out 10mL of water? Write the name of the tool on your lab sheet.
- Which lab tool would you use to measure out 100mL of water? Write the name of the tool on your lab sheet.

## Station 3

# pH

- Find the pH of water.
  - Record the pH of water on your lab sheet.
- **Dip the pH meter in the water provided before testing the other unknown liquids.**
- Repeat the first two steps on the other two liquids (sugar water & soda)

## Station 4

# Observations

- Record the definition for quantitative observation on your lab sheet.
- Quantitative observations are measured quantities.
- Make 3 quantitative observations about the classroom.

## Station 5

# Observations

- Record the definition for qualitative observation on your lab sheet.
- Qualitative observations are the descriptions that can be made by examining with all senses.
- Make 3 qualitative observations about the classroom.

# Scientific Method

## 1. Question

Ask a question. What do you want to learn more about?  
What do you find interesting?

## 2. Hypothesize

Research to help you make an educated guess, or hypothesis, and then answer your question.

## 3. Experiment

Test your hypothesis by making a plan and conducting an experiment.

## 4. Observe & Record

Make careful observations, collect data, and write down what happens.

## 5. Analyze

Use your information to draw a conclusion about your experiment. Was your hypothesis correct?

## 6. Share Results

Explain your results.

## Station 7

# Independent Variable

- Record the definition of independent variable on your lab sheet.
- **Independent variable:** the factor that is changed in the experiment
- **Read the scenario at the end of the lab sheet and identify the independent variable from the scenario.**
- Record the independent variable on your lab sheet.

## Station 9

### Control

- Record the definition of control on your lab sheet.
- **Control:** the group that is not experimented on
- **Read the scenario at the end of the lab sheet and make a control group for the experiment.**
- Record the control on your lab sheet.



## Station 10

# Hypothesis

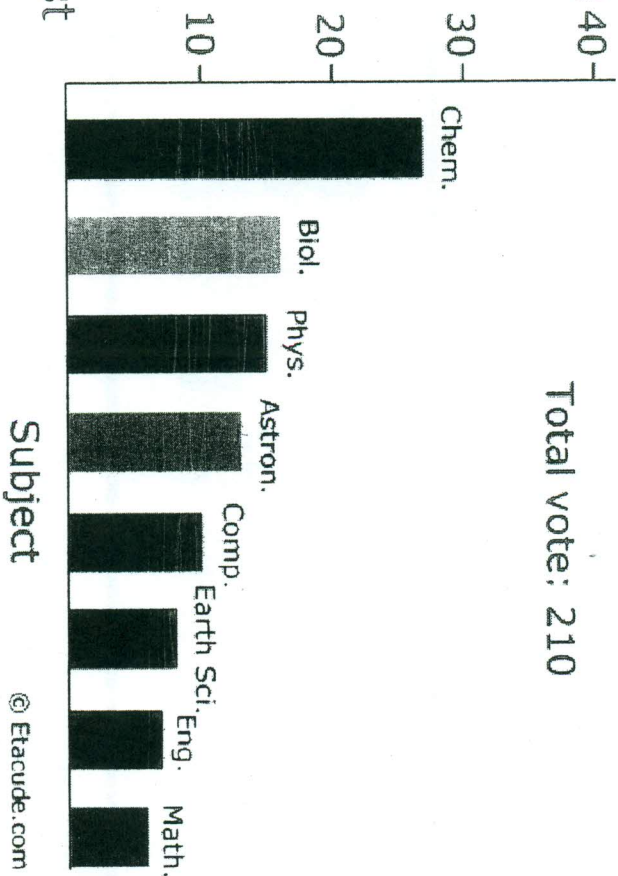
- Record the definition of hypothesis on your lab sheet.
- **Hypothesis:** a prediction that can be tested
- **Read the scenario at the end of the lab sheet and make a hypothesis.**
- Record your hypothesis on your lab sheet.

# Station 11

## Graphing

• Use the graph to answer the following questions. Record the answers on your lab sheet IN COMPLETE SENTENCES.

- What is a possible title for this graph?
- Which subject received 10% of the total vote?
- Which subject received the most votes?
- Which subject received about half the votes as Chemistry?
- How many votes did Earth Science receive?



### Subject Key

- Chem. = Chemistry
- Biol. = Biology
- Phys. = Physics
- Astron. = Astronomy
- Comp. = Computer Science
- Earth Sci. = Earth Science
- Eng. = Engineering
- Math. = Math

## Station 13

# Density

- First, find the mass of the cube using the scale.
- Second, find the volume ( $l \times w \times h$ ) of the cube.
- Use the formula calculate density
  - $\text{Density} = \text{mass} / \text{volume}$

## Station 14

# Length

- Measure the length of your arm span using the measuring tape on the counter.
- Ask your partner to measure your height using the other measuring tape.
- Are they the same?

# Safety Station 15

- Use the picture and find five broken safety rules.

