

Pre-Lab:

1. Review Length Notes and Metric Prefixes.
2. Read the procedures and data table items & units.
3. Write a scientific problem that could be answered by these procedures. Label the IV & DV.
4. List 3 research topics.
5. Write a hypothesis as If, then statement. Be sure to show cause (If) & effect (then).

Objective- differentiate accuracy & precise in science

- Accuracy-how close a measurement is to the true value (ex. Water is pH 7.0)
- Precision-the exactness of the measurement (use smallest unit on measuring device)

Problem: _____

Research: _____

Hypothesis: If _____,
then _____

Procedures:

1. Measure any ONE item from the data table and record on corresponding row. Be precise, measure to the mm.
2. Go to the Accepted Value Cards posted by your teacher and record the Accepted Value for the ONE item you measured.
3. Calculate the Percentage Error using the formula below. SHOW WORK.

$$\text{Percentage Error} = \frac{\text{Accepted Value} - \text{Experimental Value}}{\text{Accepted Value}} \times 100$$

Accepted Value

4. Measure a different item & repeat steps 2-4 until ten items are measured & calculated.
5. Write results paragraph, conclusion paragraph, and application sentence on notebook paper. Use Scientific Method notes to write paragraphs.

Number	Item	Experimental Value	Accepted Value	Percentage Error Calculation-show work
Math Practice Page 13	Example			
1	Measure the exact length of the drawer handle in cm .			
2	Measure the exact height of the Lab 1 where directions are taped in m .			
3	Measure the exact height of this stool in dm .			
4	Measure the exact height of the faucet in mm .			
5	Measure the exact height of the goggle cabinet in m			
6	Measure the height in of microwave in m .			
7	Measure the exact width of the scotch tape in mm .			
8	Measure the exact diameter of the beaker in cm .			
9	Measure the exact length of the cable in dm .			
10	Measure the exact diameter of the ink pen in cm .			

