

Investigate: Mass and Volume of a Water Drop



How would you find the mass and volume of a single drop of water using the materials available? Plan your investigation with your team. Write your notes in the space below. (Diagrams allowed.)

Design

Investigation

Identify the purpose of your investigation and record it in the space below. Conduct your investigation. In the space provided, record materials, experimental procedure, data, calculations, analysis and conclusions. Be prepared to discuss your procedure and results with the group.

Purpose

Materials

Procedure: (if different from your original design)

Data and Calculations

Analysis and Conclusions

Apply: Accuracy and Precision

Three students made multiple measurements of the mass of a metal block as shown below. The correct mass of the metal block was previously determined to be 83.65 g.

1. Describe the accuracy and precision of each student's measurements.

Mass of metal block (g)		
Student A	Student B	Student C
82.45	84.25	83.63
84.30	84.26	83.64
83.04	84.25	83.66

2. Calculate each student's average measurement of mass. How does averaging each student's data affect the accuracy of measurement?

3. Calculate percent error of measurement for each student using the average measurement of mass.