Mystery of the Burned Towel Investigation

Questions & Data

Mystery of the Burned Towel Stations

Station 1: Density

Trials	Mass (g)	Volume (mL)	Density (g/mL)
Trial 1			
Trial 2			
Trial 3			

1. How **precise** were your measurements?

_____

_____

2. **Derived units** are those that are made of one of more basic units. What are the basic units that make up density?

_____

3. **Intensive properties** are those that do NOT depend on the amount of material present. **Extensive properties** change based on the amount of material. Is density intensive or extensive? _____

Station 2: Area

1. **Qualitative Data:**

2. **Quantitative Data** (use units and appropriate sig figs):

Approximate Length: Approximate Width: Area:

3. **Intensive properties** are those that do NOT depend on the amount of material present. **Extensive properties** change based on the amount of material. Is density intensive or extensive? _____

Station 3: Design an Experiment

Question:

Hypothesis:

Independent Variable:

Dependent Variable:

Controls:

Station 4: Panel of Liquids

Record data in the table. Don't forget units!

Liquids	Smell	Transparency	Mass	Volume	Density
A					
B					
C					
D					

Do you think any of the liquids are flammable? If so, which ones?

Station 5:

Watch the video on physical and chemical properties. Is flammability a chemical or physical property? _____

Watch the video on physical and chemical changes. Does a fire cause a physical or chemical change? _____

Watch the video on flammability. Is heat needed for objects that are flammable? _____

Physical vs. Chemical Change Demonstration

Conservation of Mass Demonstration

Chromatography, Distillation, and Filtration