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Procedures

**Objective: To gain experience in measuring**

**Procedure:**

1. Measure the length of the nail, paper clip, and pencil in millimeters and centimeters. Record the results in your data table.
2. Use the balance to measure the mass of the three objects in Step 1. Record your results.
3. Determine and record the mass of the empty graduated cylinder and measure length in millimeters and centimeters.
4. Determine and record the mass of the graduated cylinder containing 15 mL of water. Record your results.
5. Use the graduated cylinder and measure the volume of the small cup and the large cup.
6. Carefully read the thermometer in an empty beaker and record the temperature in Celsius in your data table.
7. Pour 100 mL of water into the beaker and record the water temperature in your data table.
8. Place an ice cube in the water and stir until the ice is gone. Record the temperature of the water again.
9. Answer the questions.

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|  |  |  |
| --- | --- | --- |
| **Object** | **Length** **mm cm** | **Mass****(g)** |
| Nail |  |  |  |
| Paper Clip |  |  |  |
| Pencil |  |  |  |
| GraduatedCylinder |  |  |  |
| Graduated cylinder with 15ml water |  |  |  |

Observation and Data

|  |  |
| --- | --- |
| **Object** | **Volume (mL)** |
| Small Cup |  |
| Large Cup |  |

|  |  |
| --- | --- |
| **Substance** | **Temperature (C)** |
| Air |  |
| Water |  |
| Water and melted ice |  |

Questions to answer:

1. How much longer than the paper clip was the pencil?
2. Which had the greater mass, the nail or the paper clip?
3. What effect did the ice cube have on the temperature of the water?