1. **STATION 1 card**

Length of a line on a paper

Steps:

1. Look at the line on the paper
2. Using the cm side of the ruler measure the line (make sure you have it lined up correctly)
3. Record your information in the data table.
4. **STATION 2 card**

Area of an rectangle drawn on paper (LxW)

1. Look at the rectangle on the paper
2. Using the cm side of the ruler measure the length and width of the rectangle (make sure you have it lined up correctly)
3. Record your information in the data table.
4. Determine the area of the rectangle by multiplying the length x width.
5. Record your information in the data table
6. **STATION 3 card**

Approximate area of an irregular flat object using approximate length and approximate width

1. Look the object, it has an irregular shape.
2. Using the cm side of the ruler measure APPROXIMATE length and width of the object.
3. Record the information in the data table.
4. Determine the area of the irregular shape by multiplying the length x width.
5. Record your information in the data table.
6. **STATION 4 card**

Approximate area of an irregular flat object using centimeter paper.

1. Look at the object, it has an irregular shape.
2. Place the object on the centimeter square graph paper.
3. Count how many squares are covered by the object.
4. Record this information in the data table.
5. **STATION 5 card**

How to read a graduate cylinder

1. Graduated cylinders are used to measure volume.
2. Using the cup carefully pour water into the graduated cylinder. Make sure your eyes are level with the liquid level in the graduated cylinder.
3. Stop pouring when the water reaches 50 mL.
4. Record this value in your data table.
5. **Stations 6 card**

Volume of a regular object: lengh, width, height of the wood block to find the volume (LxWxH)

1. Carefully measure the length and width and height of the wooden block.
2. Record the values in your data table.
3. Multiply the length x width x height to find the volume
4. Record this value in our data table.
5. **Stations 7 card**

Volume of an irregular object (displacement method using a graduated cylinder)

* 1. You may not always be able to get a good volume measurement of an irregular object, such as a rock or paperclip, etc… You can use the displacement method to do this.
  2. Pour water into the graduated cylinder until it gets to a nice easy number such as 40 mL or 60 mL.
  3. Drop the object into the graduated cylinder.
  4. Notice the new volume.
  5. Subtract the smallest volume from the largest volume…record this volume in your data table.

1. **Station 8 card**

Mass of an object

* 1. An electronic scale can be used to determine the mass of an object. Mass is almost the same as weight, but a little different. We will discuss this later in class.
  2. Turn on the scale and make sure it reads “Zero”. If it does not read zero I will show you what to do.
  3. Carefully place your cup of pennies on the scale.
  4. Record this value in your data table.

Name (FIRST AND LAST) :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Lab partner(s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | | | |  | | Data Table: Measurement lab | | | |
| Station | Object | Length (cm) | Width (cm) | Height (cm) | | Area (cm2) | | Volume (ml) or (cm3) | Mass  (g) |  | |
| 1 | Line on paper length |  |  |  | |  | |  |  |  | |
| 2 | Rectangle on paper area |  |  |  | |  | |  |  |  | |
| 3 | Irregular object area using ruler measurements |  |  |  | |  | |  |  |  | |
| 4 | Irregular object area using cm graph paper |  |  |  | |  | |  |  |  | |
| 5 | Read Graduated Cylinder |  |  |  | |  | |  |  |  | |
| 6 | Wood Block |  |  |  | |  | |  |  |  | |
| 7 | Irregular object (rock) using displacement method |  |  |  | |  | |  |  |  | |
| 8 | Cup of pennies |  |  |  | |  | |  |  |  | |
|  |  |  |  |  | |  | |  |  |  | |
|  |  | | | |  | |  | | | |

**Station 9: Procedure:**

* 1. Measure and record in Table 1 the dimensions (in cm) of the 100 sheets of notebook paper.
     1. Read to nearest mm and estimate to 0.1 mm   
        (*Your measurements should have 2 decimal places!)*
     2. Calculate the volume of 100 sheets of notebook paper
     3. Calculate the thickness of 1 sheet of notebook paper
     4. Determine the volume of one sheet of notebook paper.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Object | Length (cm) | Width (cm) | Thickness (cm) | Volume (cm3) |
| 100 sheets of paper |  |  |  |  |
|  |  |  |  |  |
| 1 sheet of paper (use division) |  |  |  |  |

**Discussion**: Explain how you determined the thickness and volume of a single sheet of paper (use back of paper).

**Reflection**: Personal Statement on how the lab went for you (use back of paper).