**Names:**

**Measurement Math Lab**

**Purpose:** To investigate surface area and volume of a variety of 3D shapes

**Materials:**

One piece of LARGE chart graph paper

One 30 cm ruler

One tape measure

Formula sheet

Pencil

3D shapes (*provided for you*)

**Procedure:**

Around the room there will be a variety of 3D shapes. In assigned groups/partners complete the following for each of the shapes :

1. **Draw** each shape on your large grid paper.
2. **Measure** the pertinent **dimensions** of each shape (ex height, length, width etc) and **label** your diagram appropriately. *USE* ***METRIC*** *UNITS*
3. **Calculate** **volume** of each shape and **record** it your diagram (include units)
4. **Calculate surface area** of each shape and **record** it on your diagram (include units)
5. **Choose** at least **two** shapes and **convert** your measurements into***IMPERIAL UNITS***. **Record** this on your diagram.

Math 10C

Formula Sheet

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| --- | --- |
| **Perimeter:**Rectangle: Circle (circumference): **Area:**Square: Rectangle: Triangle: Circle: Surface Area of a Cylinder: Surface Area of a Cone: Surface Area of a Sphere: **Volume:**Cube: Rectangular Prism: Triangular Prism: Cylinder: Cone: Pyramid: Sphere:  | **Trigonometry:*** **Be sure your calculator is set to Degree Mode**

**Linear Functions:**Slope: Slope / y-intercept form: Point / Slope form: General Form:  |