**Volume and Density Stations Lab Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Block: \_\_\_\_\_\_**

**Purpose – to learn how to determine volume and mass and to see how those two values can be compared**

**Note –** please take precise measurements and include units (mL, cm3 or g) in your answers

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| **#** | **Materials** | **Findings** | **What does it mean?** |
| 1 | Block  Ruler | Use the ruler to determine the volume of  Blocks #1: \_\_\_\_\_\_\_  Block #2: \_\_\_\_\_\_\_  Use the displacement method to determine the volume of the Block #1: \_\_\_\_\_\_\_  Block #2: \_\_\_\_\_\_\_ | Convert the volume from cm3 to mL (1cm3 = 1mL)  Compare the volumes of the 2 objects, are they the same or different – why or why not? |
| 2 | Volume of a small irregular object  Small rocks  Graduated cylinder | Volume of rock #1 \_\_\_\_\_\_\_\_\_\_\_  Volume of rock #2 \_\_\_\_\_\_\_\_\_\_\_ | Why can’t you use a ruler to determine the volume? |
| 3 | Sugar solution in a beaker  Empty beaker  Balance | Volume: \_\_\_\_\_\_\_\_\_  Mass: \_\_\_\_\_\_\_\_\_ | Why do these 3 liquids have different masses yet the same volume? |
| 4 | Salt solution in a beaker  Empty beaker  Balance | Volume: \_\_\_\_\_\_\_\_\_  Mass: \_\_\_\_\_\_\_\_\_ |
| 5 | Water in a beaker  Empty beaker  Balance | Volume: \_\_\_\_\_\_\_\_\_  Mass: \_\_\_\_\_\_\_\_\_ |

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| **#** | **Materials** | **Findings** | **What does it mean?** |
| 6 | 3 metals rods  balance | Mass of object #1: \_\_\_\_\_\_\_\_\_\_\_  Mass of object #2: \_\_\_\_\_\_\_\_\_\_\_  Mass of object #3: \_\_\_\_\_\_\_\_\_\_\_ | Why do these 3 metal objects have different masses yet the same volume? |
| 7 | 3 containers – different shapes (different colours)  Graduated cylinder | Predicted volume #1: \_\_\_\_\_\_\_  Measured volume #1: \_\_\_\_\_\_\_  Predicted volume #2: \_\_\_\_\_\_\_  Measured volume #2: \_\_\_\_\_\_\_  Predicted volume #3: \_\_\_\_\_\_\_  Measured volume #3: \_\_\_\_\_\_\_ | How close were your predicted and measured volumes? Why? |
| 8 | Overflow can, Grad cylinder, Large irregular object, Pneumatic trough, Multipurpose tongs, 600mL beaker of water | Volume of the object: \_\_\_\_\_\_\_\_ | How is this method of determining volume – different then displacement in the graduated cylinder? |