**Station 1**

Wooden block 1

1. Calculate the volume of the wooden block by using the formula A=l x w x h
2. Place the block on the triple beam balance and record it’s mass
3. Calculate the density.

Wooden block 2

1. Calculate the volume of the wooden block by using the formula A=l x w x h
2. Place the block on the triple beam balance and record it’s mass
3. Calculate the density.

*Question: Do you think these 2 pieces of wood are from the same kind of tree? Why or why not?*

**Station 2**

Rubber stopper

1. Take the rubber stopper and place it on the triple beam balance, record it’s mass
2. Fill a graduated cylinder with 10mL of water exactly.
3. Drop the rubber stopper into the graduated cylinder and record how much the water went up by.
4. Calculate the density

**Station 3**

Metal pieces that are strangely shaped

1. Place the metal on the triple beam balance and record it’s mass.
2. Fill an overflow can with water all the way to the top.
3. Place a graduated cylinder under the spout
4. Place the metal into the overflow can and record how much water you catch with the graduated cylinder, this is the volume.
5. Calculate the density

**Station 4**

Rocks that are oddly shaped (same kind of rock)

1. Place rock #1 on the triple beam balance and record it’s mass.
2. Fill an overflow can with water all the way to the top.
3. Place a graduated cylinder under the spout
4. Place rock 1 into the overflow can and record how much water you catch with the graduated cylinder, this is the volume. Record the volume
5. Calculate the density
6. Place rock #2 on the triple beam balance and record it’s mass.
7. Fill an overflow can with water all the way to the top.
8. Place a graduated cylinder under the spout
9. Place rock 2 into the overflow can and record how much water you catch with the graduated cylinder, this is the volume.
10. Calculate the density

*Question: Do you think these are the same kind of rocks or different?*

**Station 5**

Density problems:

*Q1:*

*What volume of silver weighs exactly 2500 g. The density of silver is 10.5 g/cm3.*

*Q2:*

*A block of aluminum has a volume of 15.0 mL and weighs 40.5 g. What is its density?*

**Station 6**

Oil and water

1. Put your graduated cylinder on the scale and press ‘0’/tare.
2. Now fill the cylinder with a volume of exactly10ml of water
3. Weigh the mass
4. Using the volume and mass calculate the density of water
5. Pour the water back into the beaker provided.
6. Put your empty graduated cylinder on the scale and press ‘0’/tare.
7. Now fill the cylinder with a volume of exactly10ml of salt water
8. Weigh the mass
9. Using the volume and mass calculate the density of salt water.
10. Pour the salt water back into the beaker provided

*Question: If you mixed these 2 things together which do you think would float on top? Why?*

**Observation chart**

|  |  |  |
| --- | --- | --- |
| **Station 1**  Block 1  V=  M=  Answer: | Block 2  V=  M= | |
| **Station 2**  M=  V= | | **Station 3**  M=  V= |
| **Station 3**  **M=**  **V=** | | |
| **Station 4**  Rock 1  M=  V=  Answer: | | Rock 2  M=  V= |
| **Station 5**  Answer1: | Answer 2 | |
| **Station 6**  water  V=  M=  Answer: | Salt water  V=  M= | |