

Absorbing Sponges

Materials: 4 natural sponges, 4 manmade sponges, triple beam balance, beaker, plastic bin, water

Procedure: 1. Measure the mass of each sponge dry.



2. Measure the mass of the dry beaker.

3. Submerge a sponge in the water for 30 seconds.

4. Pull it out and let it drain a little.

5. Squeeze the sponge until all of the water comes out in a measuring beaker.

6. Measure the mass of the beaker and the water.

7. Take the difference between the mass of the dry beaker and the beaker with water in it. The result is the mass of the water squeezed out.

8. Measure the mass of the sponge (now wet) again.

9. Take the difference between the dry and wet sponge. The result is the retained water that wasn't squeezed out but still absorbed by the sponge.

10. Add the mass of the water squeezed out and the mass of the retained water together. The result is the total amount of water absorbed by the sponge.

11. Take the mass of the water absorbed and divide by the mass of the dry sponge. The result is the water per mass ratio of the sponge. Whichever sponge has the largest water per mass ratio hold the most water.

Name: _____ Homeroom : _____

Conclusion:

1. Based on your observations, which sponges held the most and least amount of water? Why do you think this happened?



2. Why was it important to get a water per mass ratio for each sponge instead of total water absorbed by the sponge?

3. If you were to buy a sponge (Natural or man made) for cleaning, what would you buy and why?

4. What is the independent variable in this experiment?

5. What is the dependent variable in this experiment?

