

Experiment: Mixing with Water

Purpose:

What happens to the mass of water when you add a dissolvable substance to it?

Materials:

- Graduated cylinder



- Digital scale



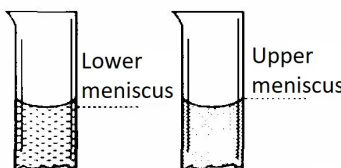
- Beaker



- Water
- $C_6H_{12}O_6$

Procedure:

1. Turn on  the digital scale. Press the “T” button to reset the scale to 0.
2. Place the beaker on the scale. **Record the number in your table.**
3. Press “T” on the scale. Then, add 5 g of $C_6H_{12}O_6$. **Record this in your table.** Remove from scale and set aside.
4. Press “T” on the scale, then place the graduated cylinder onto it. **Record the number in your table.**
5. Remove the cylinder from the scale. Press “T”.
6. Pour 20 mL of water into a graduated cylinder. Make sure the **bottom** of the **meniscus curve** is sitting at 20 mL.



7. Place the graduated cylinder with the water onto the scale. **Calculate the mass of the water and record your answer in your table.** Don't dump the water out yet!
8. Now, calculate the mass of water and $C_6H_{12}O_6$ without the scale and **record this value in your table.**
9. Press “T”. Place the beaker with $C_6H_{12}O_6$ onto the scale. Add the 20 mL of water to the beaker. Let the substance dissolve into the water. **Record this value in your table.**

How to record observations:

- **Using a ruler**, create a data table with 2 rows and 6 columns.
- In row 1, add 6 headings: Mass of beaker (g), Mass of $C_6H_{12}O_6$ (g), Mass of Cylinder (g), Mass of Water (g), Calculated Mass of Water + $C_6H_{12}O_6$ (g), Measured Mass of Water + $C_6H_{12}O_6$ (g)
- In row 2, record your values