

Practical activity that forms part of the Gr 10 Physical Sciences 3-in-1 Class text and Study Guide. See p. 122 MODULE 3 TOPIC 1 Unit 2 for the theory.



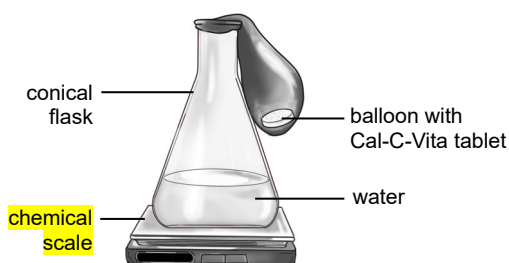
PRACTICAL EXPERIMENT 3

FOR INFORMAL ASSESSMENT

Dissolving a Cal-C-Vita tablet in water

Materials

- conical flask with water
- Cal-C-Vita tablet
- chemical scale / mass meter
- balloon

**Method**

- 1 Pour 100 ml water into a conical flask and place it on the chemical scale.
- 2 Put a Cal-C-Vita tablet into a deflated balloon and let it drop to the bottom.
- 3 Carefully stretch the balloon over the mouth of the conical flask without letting the Cal-C-Vita tablet drop into the water yet.
- 4 Note the mass of the sealed conical flask, water, balloon and Cal-C-Vita tablet.
- 5 Keep the apparatus on the scale. Gently lift the balloon so that the Cal-C-Vita tablet drops into the water. Note what may be observed.
- 6 Once the Cal-C-Vita tablet has stopped fizzing, note the mass of the flask and its contents again.

Observations and discussion

- A gas is released and collected in the balloon.
- The mass of the products equals the mass of the reactants.

Conclusion

- The mass of the system remains the same before and after the reaction.
- Therefore, the mass of the reaction mixture in the flask is conserved throughout the reaction, demonstrating the **Law of Conservation of Mass (or Matter)**.