QER for Schools

# QER Experiment – Year 7

# Decantation of oil and water experiment

## AIM

To practise decanting using a mixture of oil and water.

## EQUIPMENT

- vegetable oil
- distilled water
- laboratory balance
- 250mL or 500mL measuring cylinders
- 250mL or 500mL beakers
- stirring stick

## SAFETY

Write a list of safety considerations and procedures to minimise danger in this experiment.

## PROCEDURE

1. Tare your laboratory balance with a beaker.
2. Measure 100mL of vegetable oil into the beaker.
3. Measure the mass of vegetable oil.
4. Measure 100mL of distilled water into another beaker.
5. Pour the water into the measuring cylinder.
6. Slowly and carefully pour the vegetable oil over the water in the measuring cylinder. Try not to mix it vigorously.
7. Slowly and carefully decant the oil back into the same beaker, using the stirring stick to guide its flow. Be careful to stop before any water pours into the beaker.
8. Measure the mass of your vegetable oil. The closer it is to your original measurement, the better the decant!
9. Give another group member a turn a decanting. See who can get the best result.
10. If time allows, see if you can improve.

## QUESTIONS

1. Explain why your final mass of oil is more or less than your original mass.
2. Identify sources of inaccuracies in your experiment.
3. Think of some other substances that you might use decanting to separate.

NOTES