

# AQA Chemistry GCSE

## Required Practical 8 - Water purification

### Flashcards

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How can you test the pH of a sample of water?



How can you test the pH of a sample of water?

Use universal indicator paper or a digital pH probe



What would you expect the pH of a sample of pure water to be?  
What colour would this be on universal indicator paper?



What would you expect the pH of a sample of pure water to be?

What colour would this be on universal indicator paper?

pH 7 - green



How could you find the mass of salt dissolved in a sample of water?



# How could you find the mass of salt dissolved in a sample of water?

- Weigh an empty evaporating basin
- Fill with a sample of the water and heat with a bunsen burner until all the water evaporates
- Reweigh any salts left in the evaporating basin and calculate the mass of solids that were dissolved in the sample



State how can you purify a sample of water





State how can you purify a sample of water

Distillation



Describe how a sample of water can be purified by distillation



# Describe how a sample of water can be purified by distillation

- First test the pH. Add acid/alkali as necessary to obtain pH 7
- Place the water sample in a conical flask and connect the flask to distillation apparatus (including a condenser)
- As the water in the flask is heated, it evaporates and enters the condenser as steam
- Cold water around the condenser cools the steam, which condenses to form water before it is collected in a beaker



How could you test that the water collected from a distillation experiment is pure water?



How could you test that the water collected from a distillation experiment is pure water?

Check the pH is still pH 7

Determine the boiling point and check it matches that of water ( $100^{\circ}\text{C}$ )



What safety precautions need to be considered when purifying water?



## What safety precautions need to be considered when purifying water?

- Bunsen burner turned off or put on safety flame when not in use, hair tied back
- Acids/alkalis used for neutralisation so wear safety goggles
- Clear up any glassware that breaks

