Practical Guide
Chemistry
Water

This document contains:

- Links to YouTube clips showing the practical procedure
- Information from examination boards AQA, OCR, Edexcel
- Potential examination questions and answers

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Required practical – exam boards

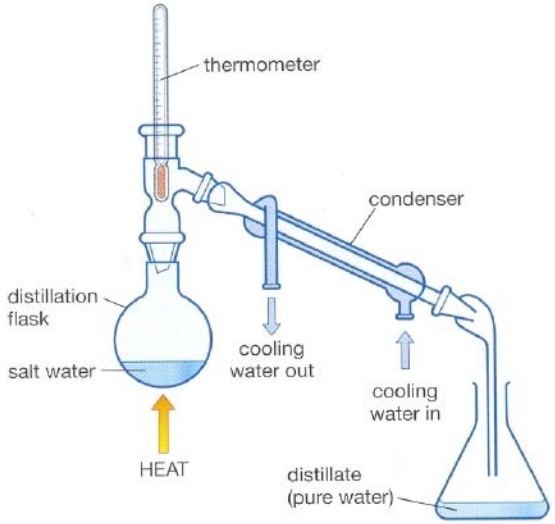
- AQA

Required practical activity	Apparatus and Techniques
Analysis and purification of water samples from different sources, including pH, dissolved solids and distillation.	AT 2, AT 3, AT 4

- Edexcel

- OCR

Practical procedure: Water

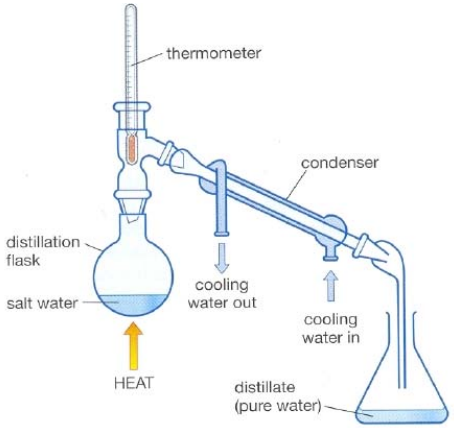


Video

Image from: http://www.ssc.education.ed.ac.uk/BSL/chemistry/distillatione.html

Possible examination style questions

1. Explain how to measure the pH of water samples using two different methods
2. Describe how you would determine the amount of dissolved solids in a sample of water.
3. Describe the process of distillation.



Possible examination style questions answers

1. Explain how to measure the pH of water samples using 2 different methods.

ANS:

- **Add universal indicator**
- **Compare sample colour to a scale to identify pH**
- **pH Probe**

Possible examination style questions answers

2. Describe how you would determine the amount of dissolved solids in a sample of water.

ANS:

- **Weigh dry watch glass**
- **Pour in sample of water**
- **Place over top of beaker of boiling water**
- **Allow water to evaporate off the watch glass**
- **Measure mass of watch glass at end**
- **Determine mass of dissolved solids**

Possible examination style questions answers

3. Describe the process of distillation.

ANS:

- **Heat water sample until it starts to boil**
- **Water will evaporate at 100°C**
- **Cools and condenses as it passes through the condenser**
- **Collected in the container**

Key questions:

- Why is a condenser used to cool the water vapour?
- What will remain in the heated container?
- Explain how you would collect a series of water samples from a pond.
- Why might distillation of sea water be useful?
- Evaluate the experiment

Summary document

A summary document is also available on Huddle which contains all the relevant information about this practical from the different examination boards. This document includes practical methods and other potential examination questions