



Separating
Mixtures – Exam
Questions

2012 - Higher

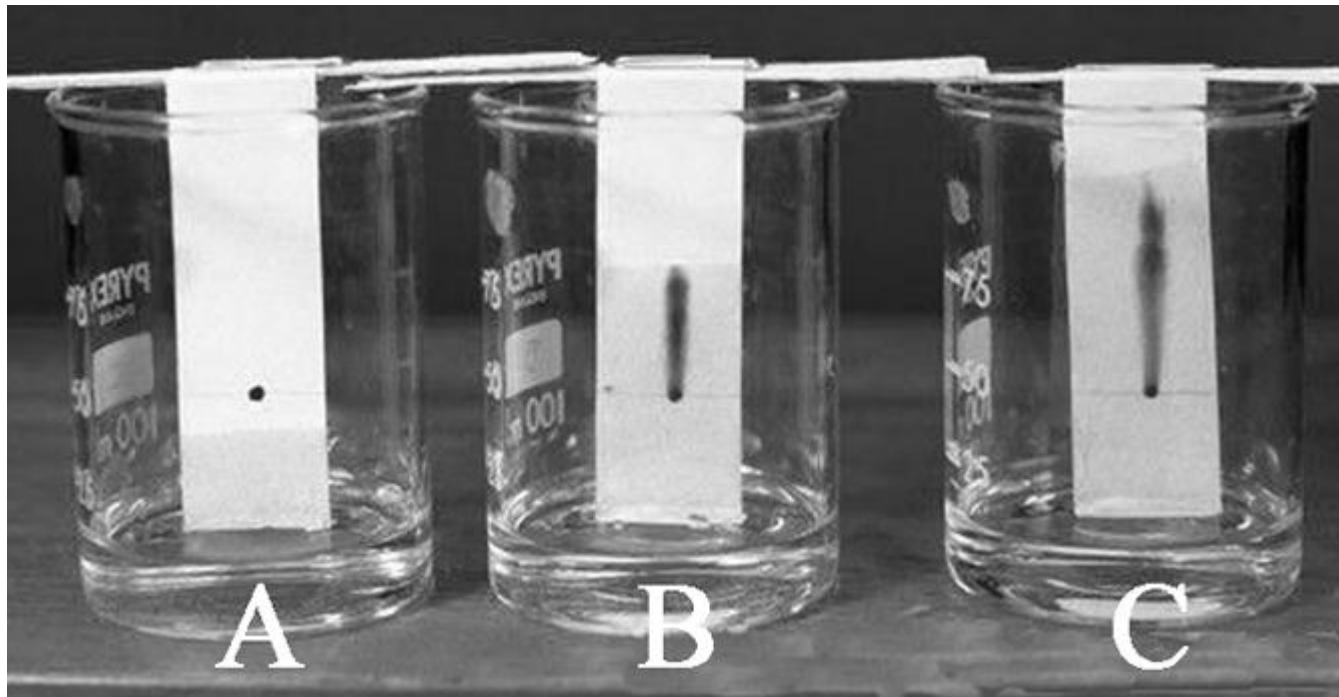
Paper chromatography was used to find the composition of brown ink in a pen. The same liquid, paper and pen were used in each of the three experiments shown. They were started at different times, **C** first then **B** and finally **A**.

Why is the ink dot above the level of the liquid in each beaker?

What caused the dots of ink on the papers **B** and **C** to spread upwards?

Why were colours, other than brown, seen in **B** and **C** as the ink moved up the paper?

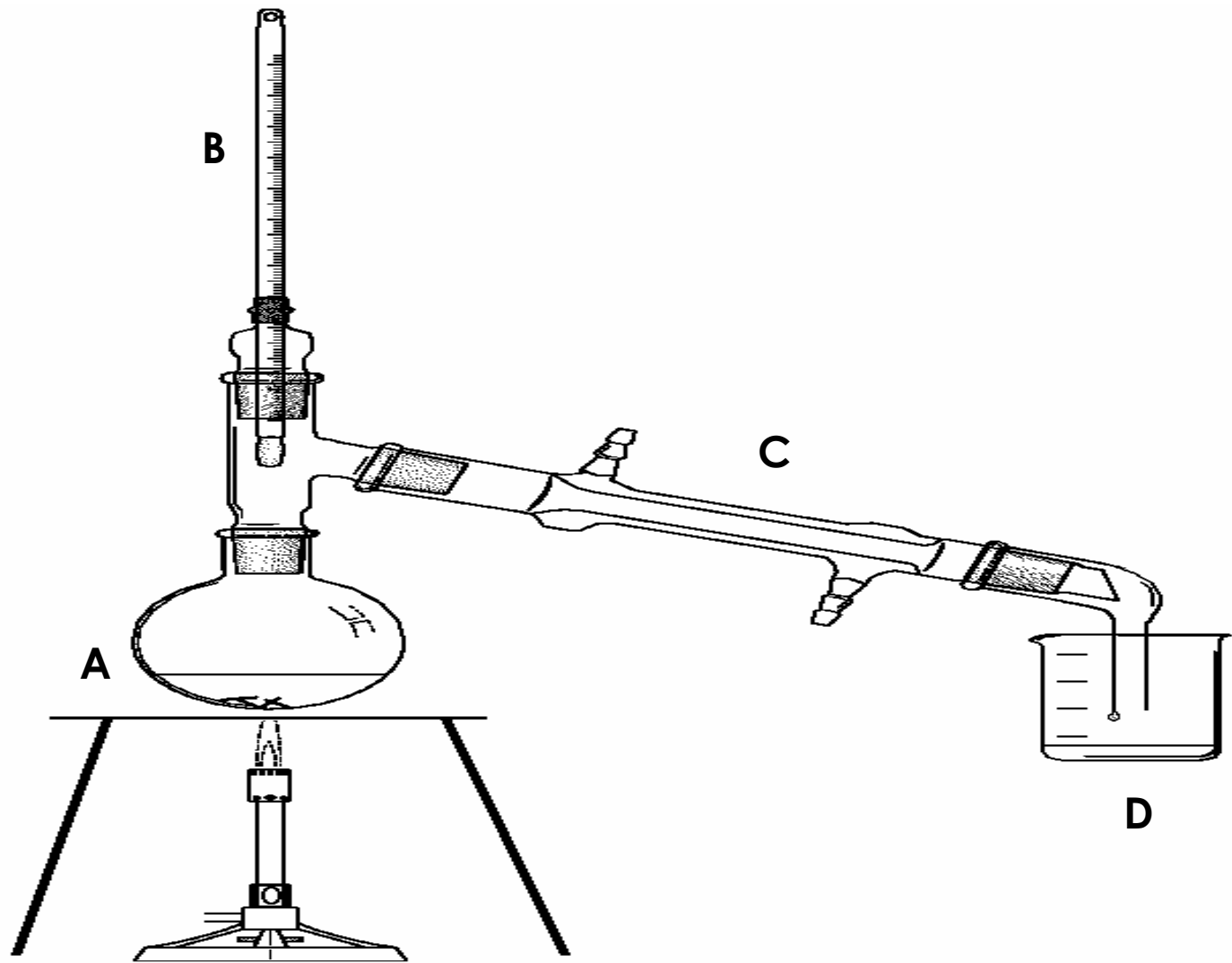
2012 - Higher



2012 – Ordinary

Examine the diagram. Complete the table correctly **matching** the labels **A – D** in the diagram with the words in the table.

	Thermometer
	Round bottomed flask
	Tripod
	Bunsen
	Condenser
	Beaker



2012 - Ordinary

Name the separation technique shown in the diagram.

In which labelled part would you expect to find **most of the dye** at the end of the experiment?

2012 - Ordinary

Describe, with the aid of a labelled diagram, how you would **separate a mixture of sand and water**.

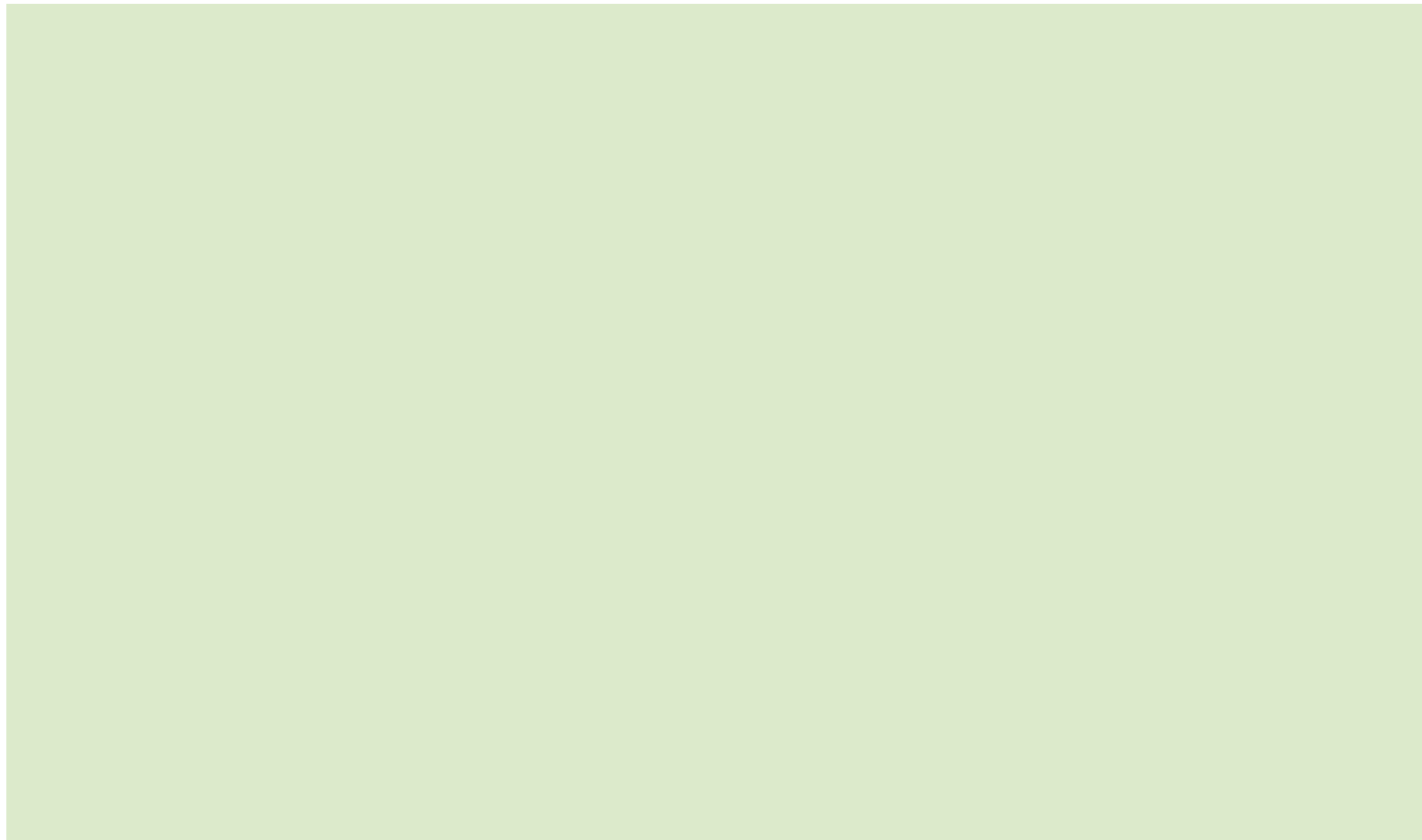
Equipment:

Procedure:

Result:

2012 - Ordinary

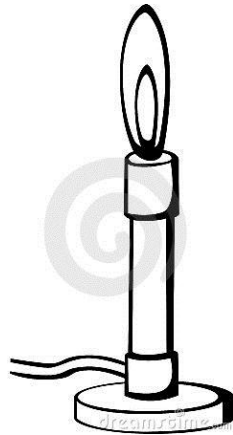
Labelled Diagram



2011 – Ordinary



A



B



C

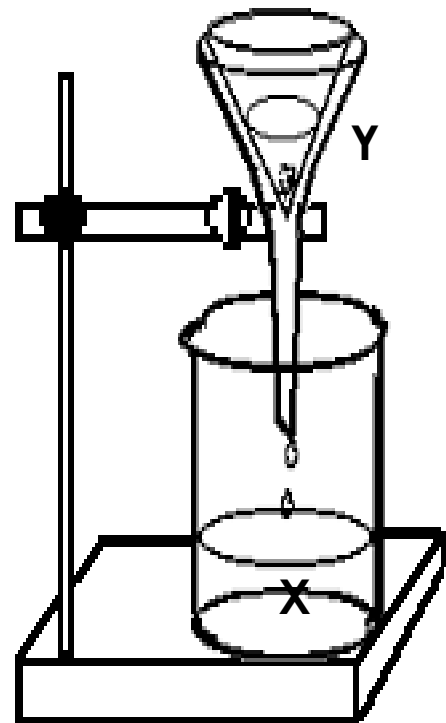


D

- A group of students carried out an experiment **to separate salt from rock**
- Which of the pieces of equipment **A, B, C** or **D** was used to grind up (crush) the rock salt at the beginning of the experiment? _____
- The rock salt was placed in a container and hot water added. The mixture was then stirred to allow the salt dissolve. Name the piece of equipment (container) in which the crushed rock salt was placed before the hot water was added. _____
- Name the piece of equipment that was used to heat the water. _____

2011 - Ordinary

- The salt and water was separated from the insoluble impurities (dirt) using the apparatus shown on the right.
- What name is given to this separation technique?
- The salt and water was collected at **X**. Explain why the insoluble impurities (dirt) were held at **Y**.



2011 - Ordinary

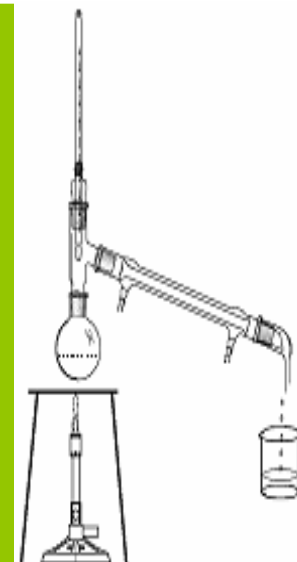
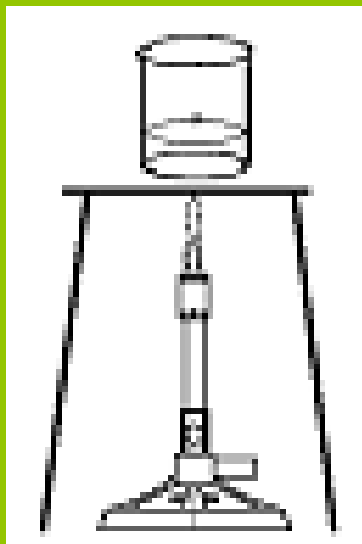
To get the salt from the mixture of salt and water the water was removed.

This could be done by either **evaporation** or **distillation**.

Write the name of each technique under the correct drawing.

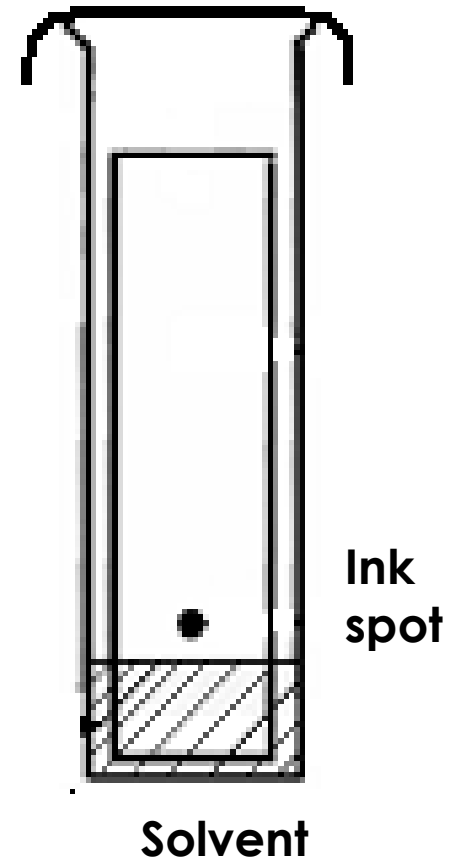
2011 - Ordinary

Diagram of
apparatus



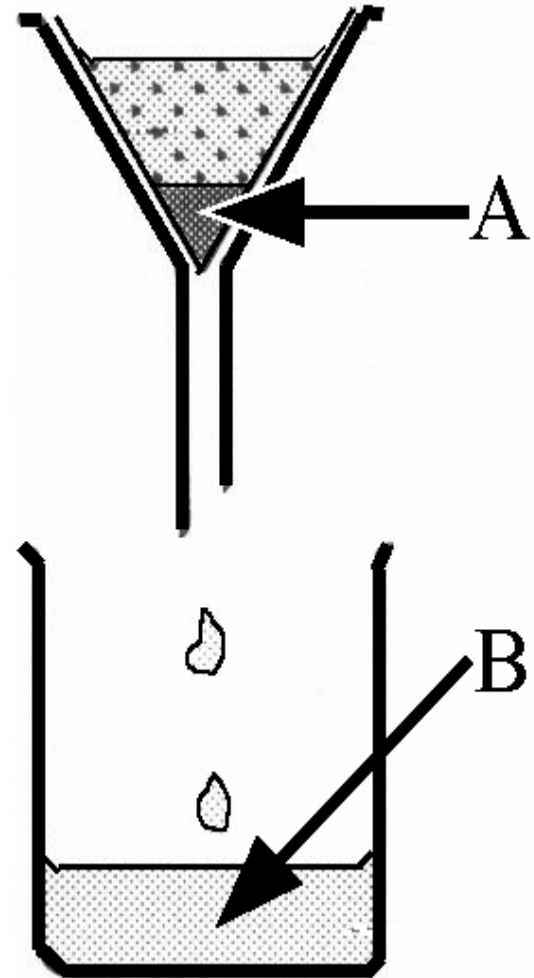
Technique

- Paper chromatography can be used to separate the dyes in a sample of ink.
- Name a suitable solvent for this investigation.
- What would you expect to notice on the piece of chromatography paper after some time?
- The ink spot is placed on the chromatography paper just above the level of the solvent. Why?



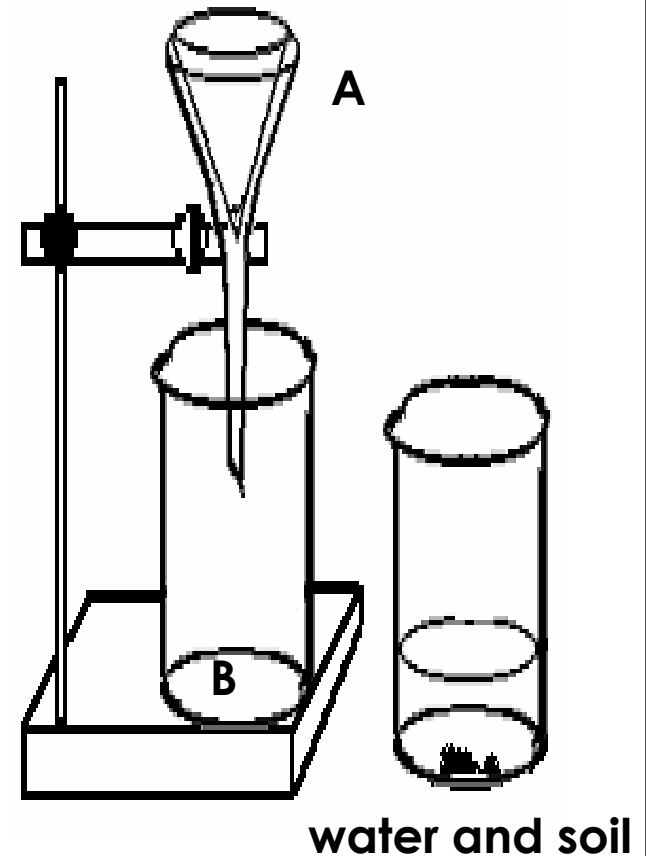
2010 - Higher

- A mixture of sand and salt was stirred up with water and then filtered as shown in the diagram.
- Substance **A** was retained by the filter paper. Name **A**.
- Substance **B** was passed through the filter paper. Name **one constituent** of **B**.



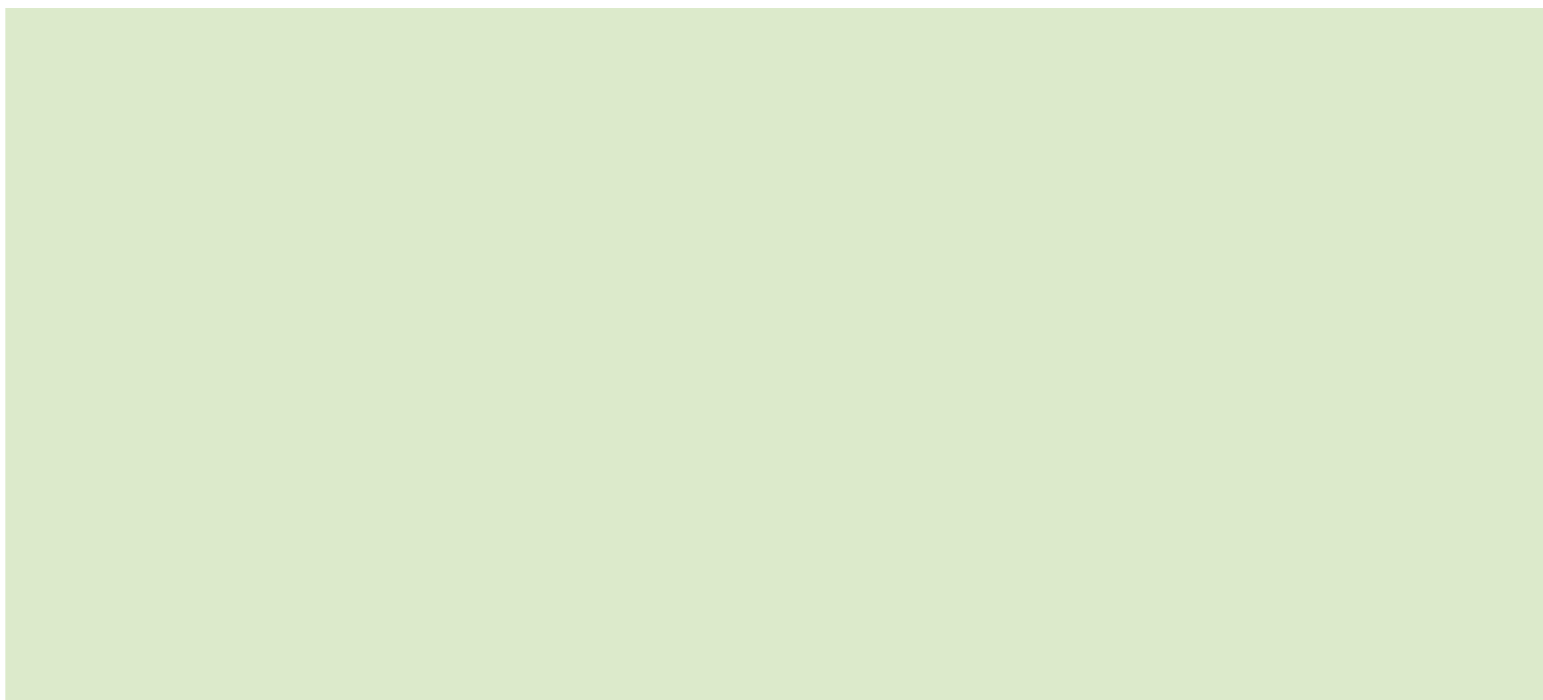
2010 - Ordinary

- The apparatus used to separate soil and water is drawn on the right.
- **Name** the piece of equipment labelled **A**.
- Would you expect to find the soil in **A** or **B** at the end of the experiment?

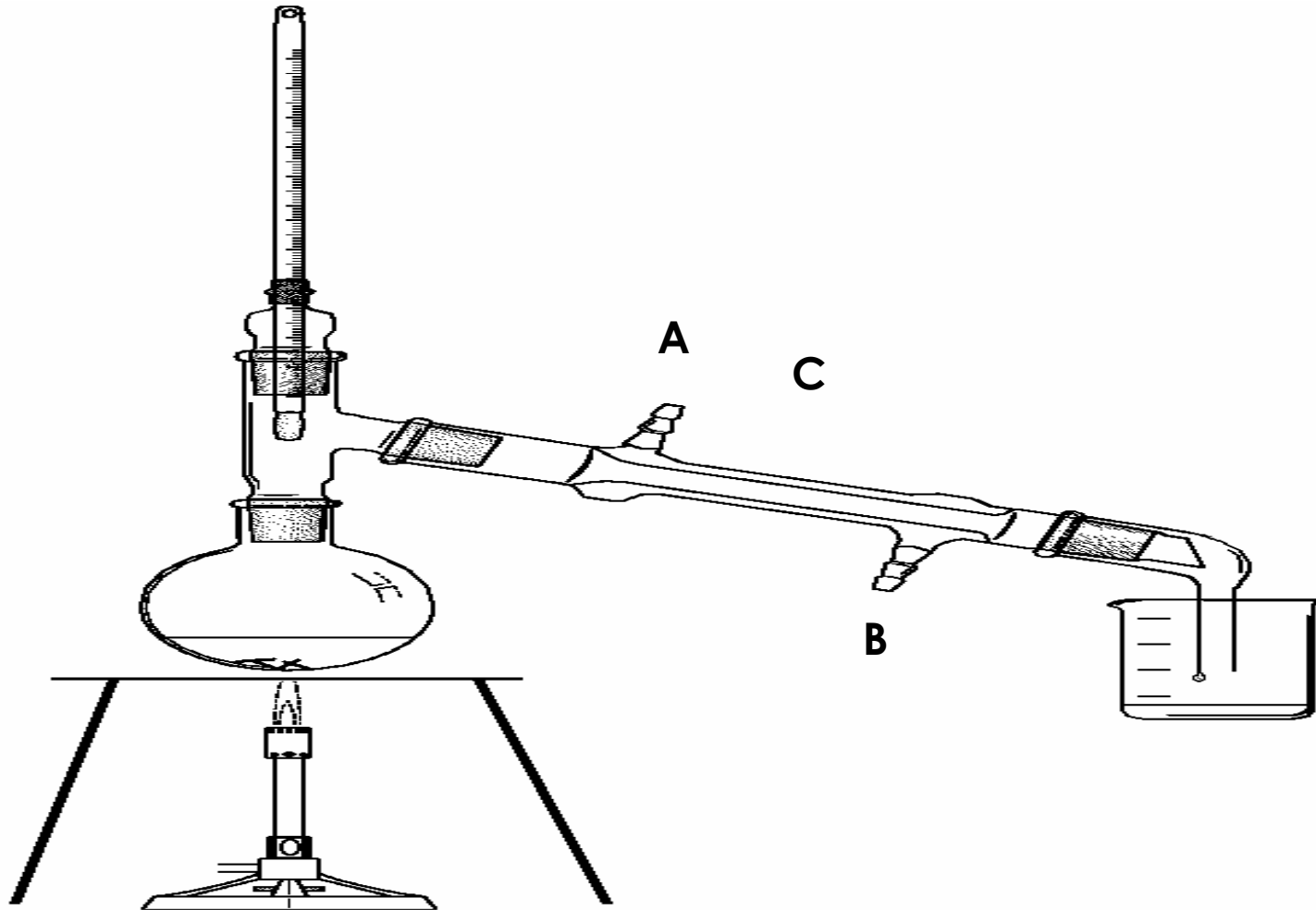


2009 - Higher

Draw a *labelled diagram*, in the box provided, of an *apparatus* that could be used to separate an *insoluble solid* from a *liquid*.



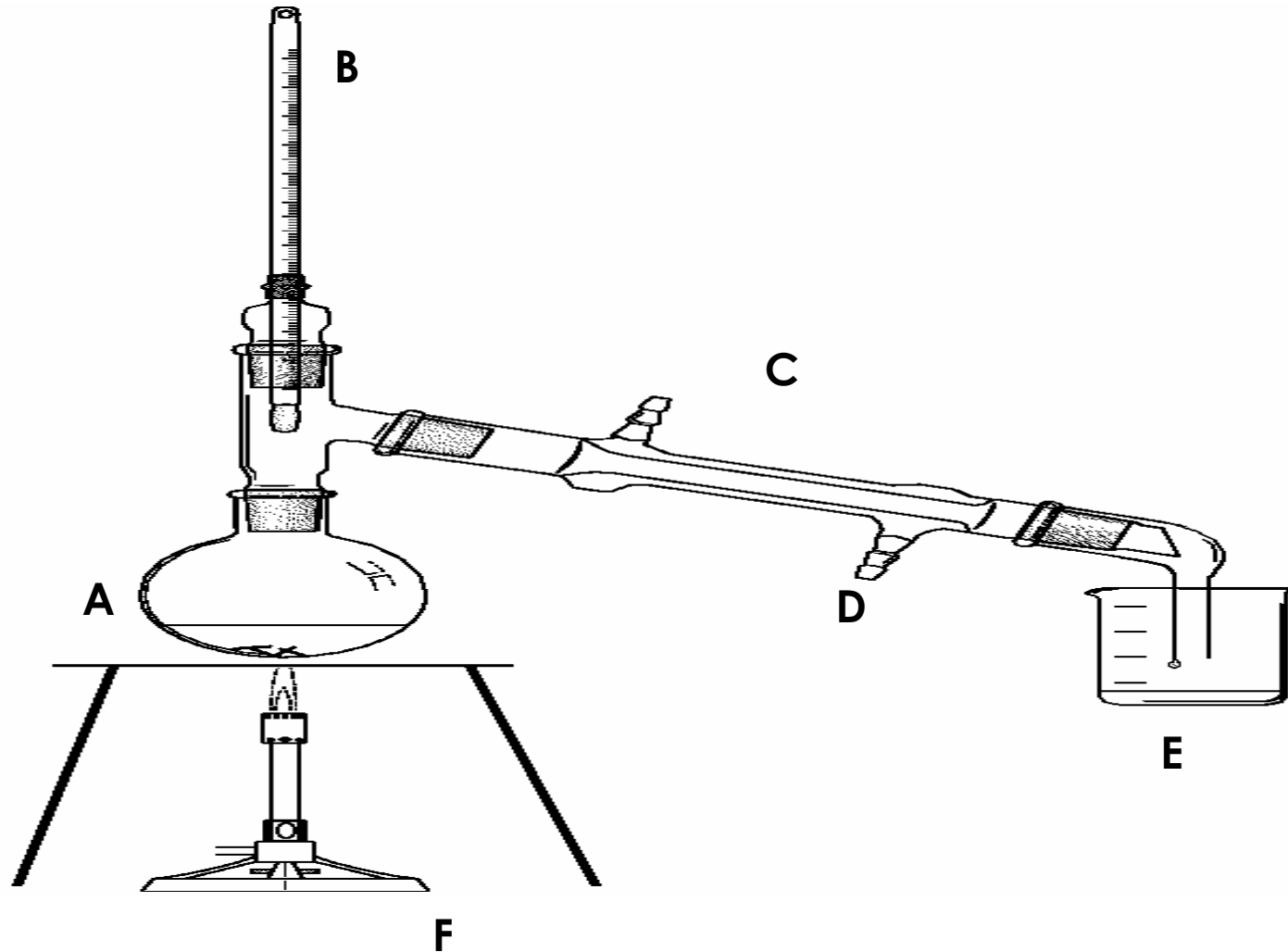
2009 - Higher



2009 - Higher

- Name the **separation process** shown in the diagram.
- Name the **item labelled C** in the diagram.
- Identify the **part A or B of item C** which is connected to the cold tap.
- How could you show that the water collected contains no salt?

2009 - Ordinary



2009 - Ordinary

The apparatus in the diagram below was used to separate a mixture of **water and a dissolved dye**.

Complete the table correctly **matching** the labels **A – F** in the diagram with words/phrases in the table.

	Bunsen
	Cold water in
	Condenser
	Beaker
	Thermometer
	Round bottomed flask

2009 - Ordinary

- What is the **name** given to the separation technique shown in the diagram above?
- A colourless liquid was collected in container **E** during the separation.
- Name a **substance** you could use to show that this liquid was **water**.
- What **colour change** is observed in this test to show that water is present?

2008 - Higher

- Describe an experiment, using a labelled diagram in the box provided, to investigate the **composition of inks in markers containing water-soluble inks**, to see if they are a **single-colour** ink or a **mixture** of coloured inks.

2008 - Higher

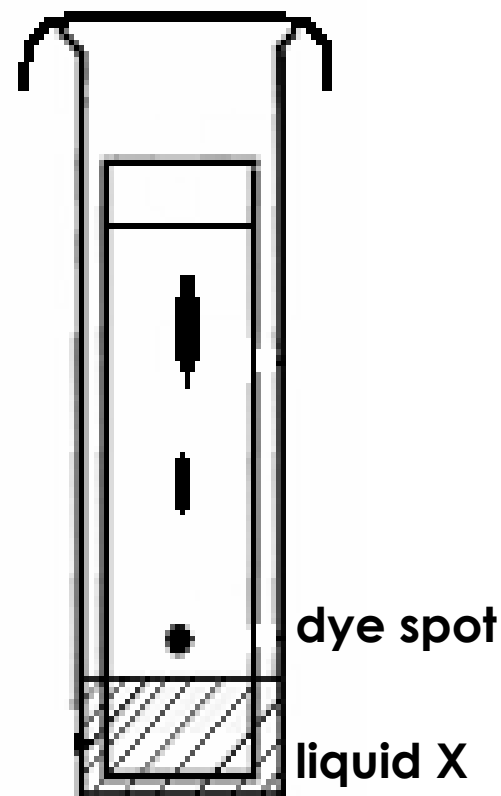
- On completion of the experiment how is it possible to distinguish between a marker containing a ***pure single-colour*** ink and a marker containing ***mixture*** of coloured inks.

2008 - Ordinary

A solution of dye can be separated into its constituent colours using the method shown in the diagram.

Identify a liquid **X** that can be used in this separation.

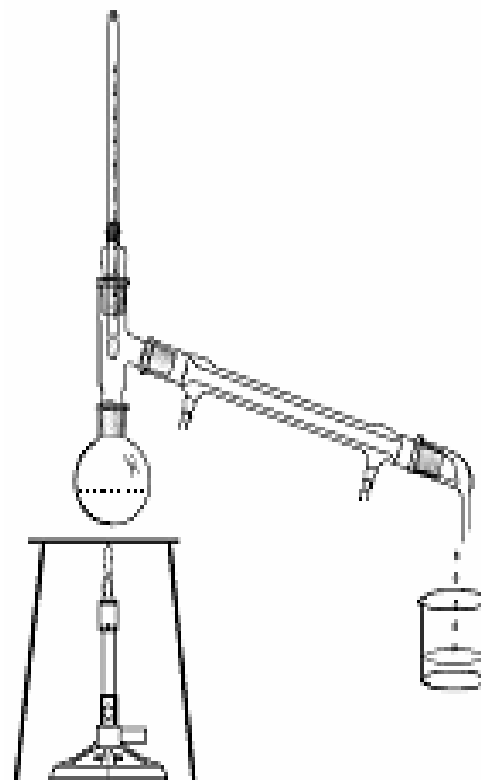
What **name** is given to this type of separation?



2008 - Ordinary

What is the **name** given to the separation technique shown in the diagram?

Name **two** substances which could be separated using this technique.



2008 - Ordinary

Describe, with the aid of a labelled diagram, how you could carry out an experiment to **separate soil from a mixture of soil and water**.

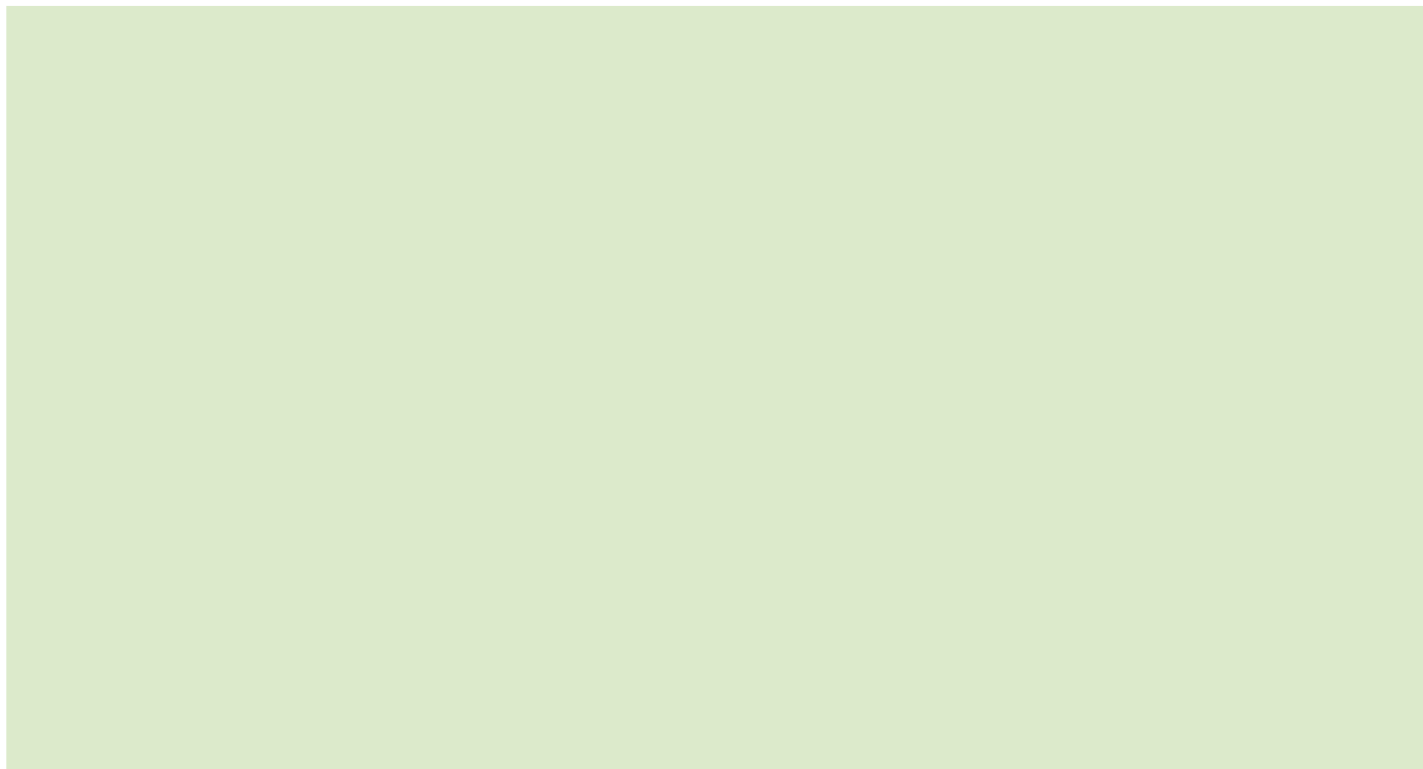
Equipment:

Procedure:

Result:

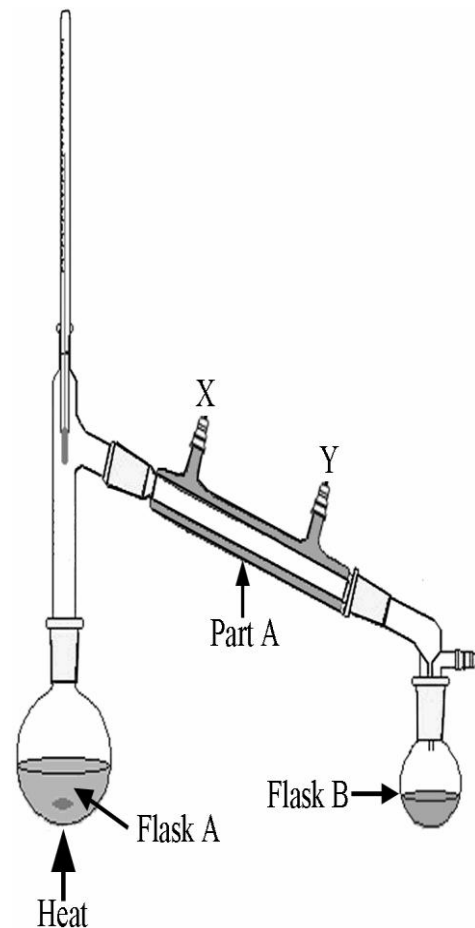
2008 - Ordinary

Labelled Diagram

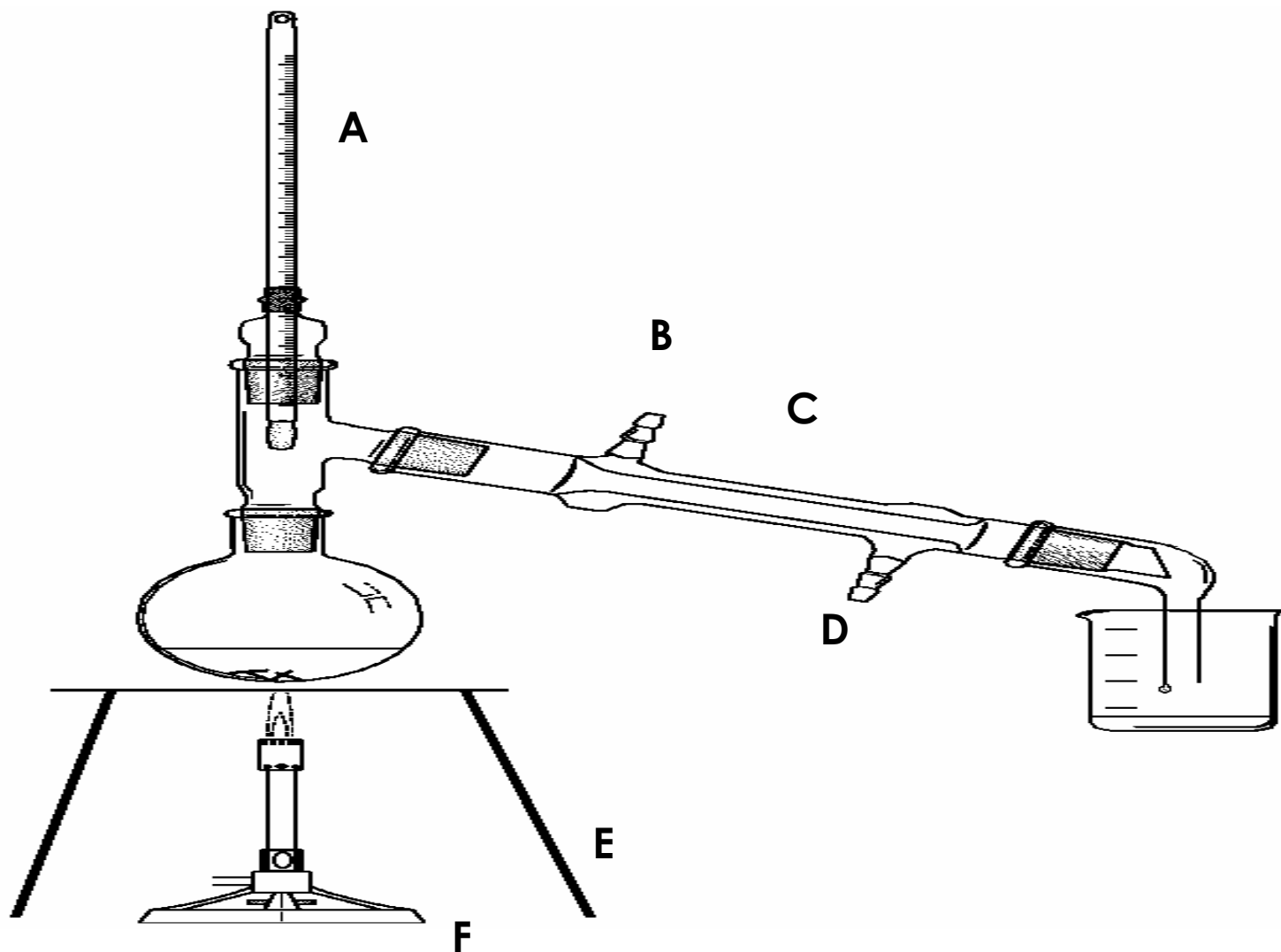


2007 - Higher

- The apparatus shown in the diagram can be used to separate mixtures.
- Name **part A**.
- Which connection, **X or Y**, is attached to the cold tap?
- Flask **A** contains seawater. Name the **liquid** that collects in flask **B**.
-
- Name a **constituent** of seawater that does not move from flask **A** to flask **B**.



2007 - Ordinary



Complete the table correctly matching the labels **A – F** in the diagram with words/phrases in the table.

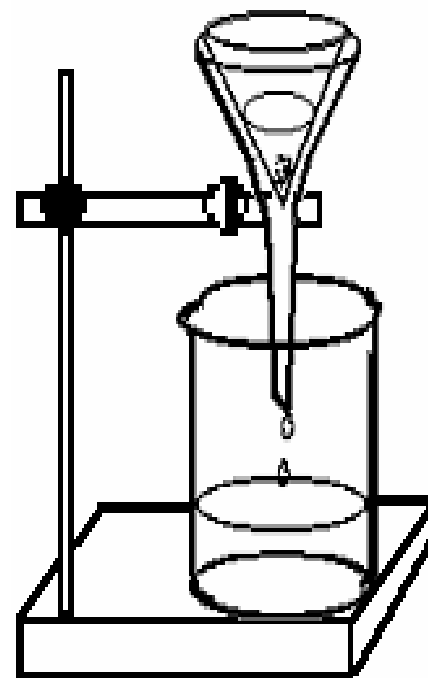
	Bunsen
	Cold water in
	Condenser
	Thermometer
	Tripod stand
	Water out to sink

What is the **name** given to the separation technique shown in the diagram above?

2007 - Ordinary

What is the **name** given to the separation technique shown in diagram on the right?

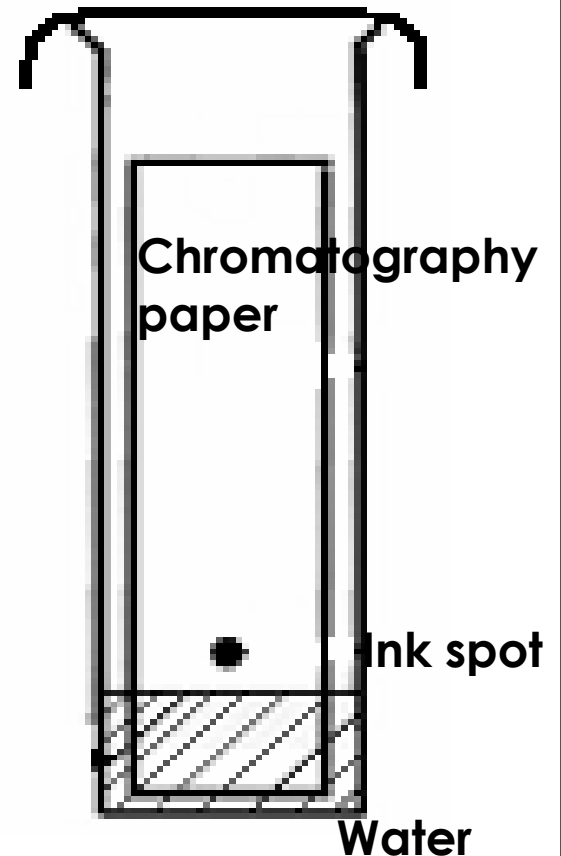
Name **two** substances which could be separated using this technique.



2006 - Higher

What happens to the ink spot as the water moves up the paper?

What would happen to a spot of water-soluble ink consisting of a **single coloured dye** if it were used in the above experiment?

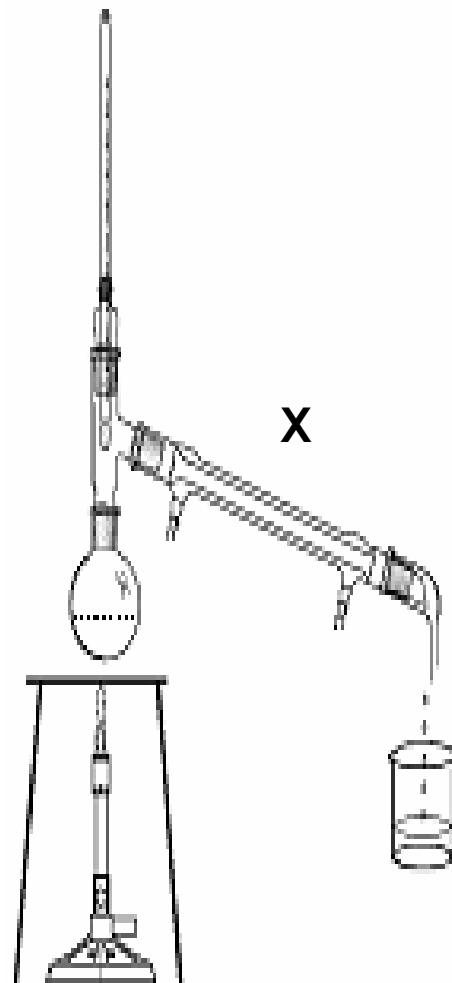


2006 - ordinary

What is the **name** given to the separation technique shown in the diagram?

Name **two** substances which could be separated using this technique?

Name the part of the apparatus labelled **X** in the diagram.



2006 – Ordinary

What is the **name** given to the separation technique shown in diagram on the right?

