

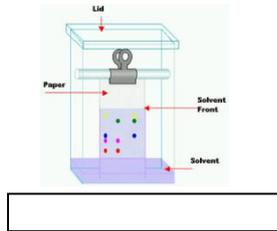
Chemistry 1A revision

Using the following words [chemically, substances, mixture] complete this sentence.

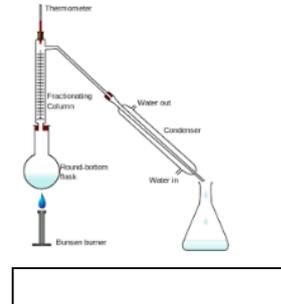
A contains two or more that are not combined.

There are a number of different experimental techniques that are used to separate mixtures.

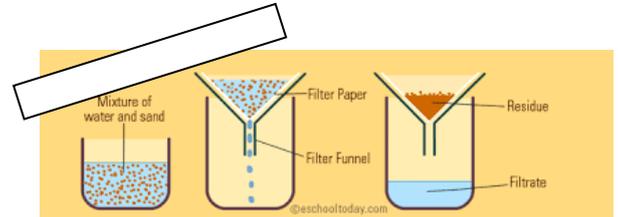
Label the images with the correct experimental technique: simple distillation, fractional distillation, filtration, crystallisation, paper chromatography



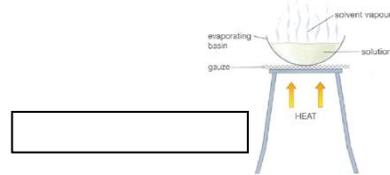
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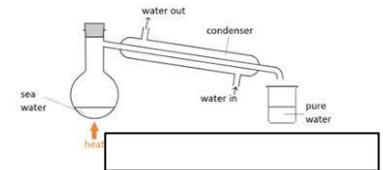
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Which technique would you use to separate the following? Use lines to connect.

Sea water (salt and water)

filtration

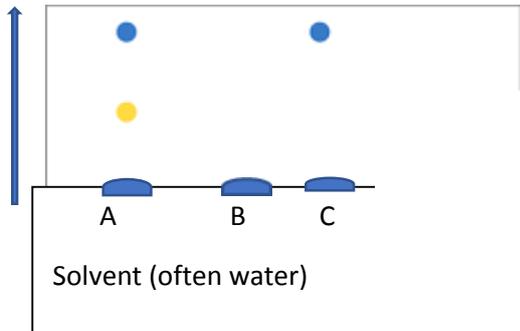
Liquid with different boiling points

fractional distillation

Sand and water

crystallization

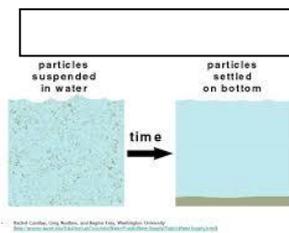
Paper chromatography can be used to distinguish between pure and impure substances because they move up the paper at different speeds. A, B and C are different soluble substances.



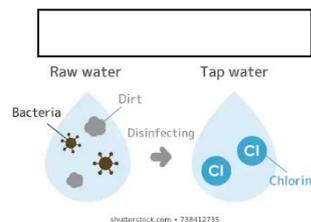
Which of A, B or C is a mixture?

Which of A, B or C is pure?

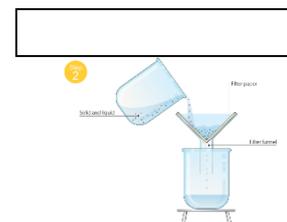
Waste and ground water can be made drinkable, including the need for sedimentation, filtration and chlorination. Label the following diagrams:



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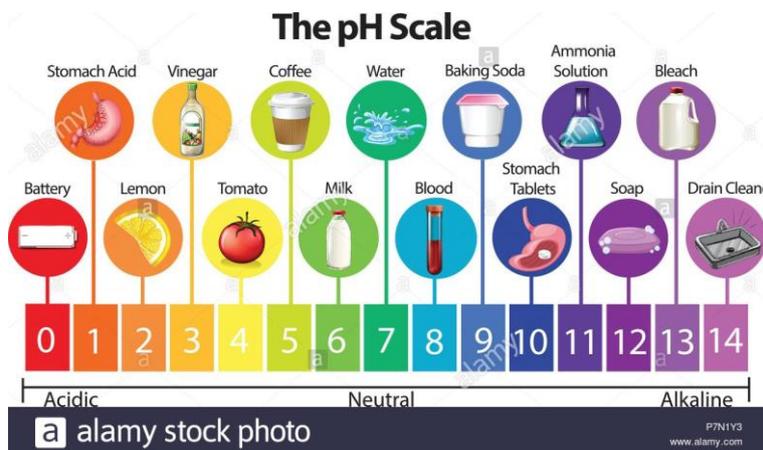


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Chemistry 1A revision

Using the following words [electro, lysis] complete this sentence.

Electrolysis is the breaking down (.....) of a substance using electricity (.....).



Draw a line to connect each of the following to the correct pH

- Acid more than 7
- Neutral less than 7
- Acid 7

A base is a substance that reacts with an acid to produce a salt and water.

Complete the following equation.



Different acids produce different salts when they react with bases. Connect each acid with the correct salts that might be produced. Hint: look for the similarity in the name of the acid with the name of the salt.

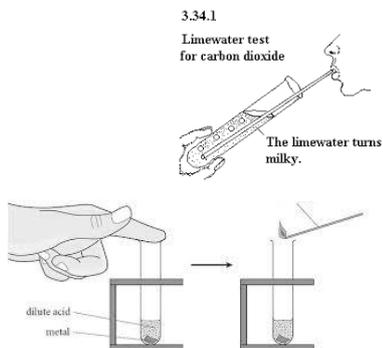
- Hydrochloric acid (HCl) nitrate salts
- Sulfuric acid nitrate salts
- Nitric acid sulfate salts

Tests for gases

Draw a line to connect the test with the correct diagram

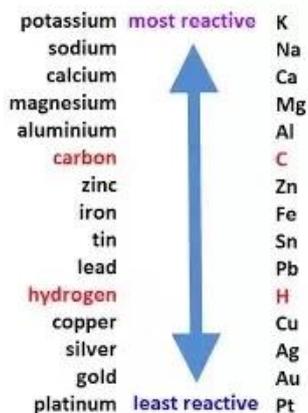
Test for hydrogen gas (H₂)

Test for carbon dioxide gas (CO₂)



Chemistry 1A revision

The reactivity of a metal can be measured by adding water or dilute acids to a metal to produce hydrogen bubbles.



Use the diagram to answer the following questions:

- Which is the most reactive metal?
- Which 2 elements are not metals?
- Which is the least reactive metal?

Use the following words [silver, squeaky pop, zinc, hydrogen gas, sodium] to complete the sentences below.

Very reactive metals for example (Na) will release lots of bubbles of gas when water is added. The hydrogen gas will make a when a lighted splint is put in the test tube. Less reactive metals like will bubble a bit and unreactive metals like will not react at all.

Most metals come from the **Earth's crust** and are found in their pure form (like gold) but some are in the form of **metal ores** and need to be extracted by **electrolysis** (see previous worksheets).

Uses of metals

Metals have many uses which are dependent on the property of the metal. Connect the correct uses of the metals below. Fill in the gaps using the following words [electrical wires, jewellery, spacecraft, drink cans]

The Uses of Some Metals and Their Reasons		
Metal	Uses	Reason for the choice
Aluminium		- Low density, non-toxic, cheap - Resists corrosion, strong
Copper		- Ductile, good conductor of electricity - Strong, malleable, resists corrosion
Gold		- Shiny and attractive, very malleable - Good reflector of heat and light
Titanium		- Light but strong, resists corrosion

Recycling

Why is important that we recycle metal? Use at least one of these words in your answer [energy, fossil fuels, landfill, climate change].

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