

# Year 11 – Paper 2 - Chemistry Knowledge Organiser - Using resources

## Finite Vs renewable

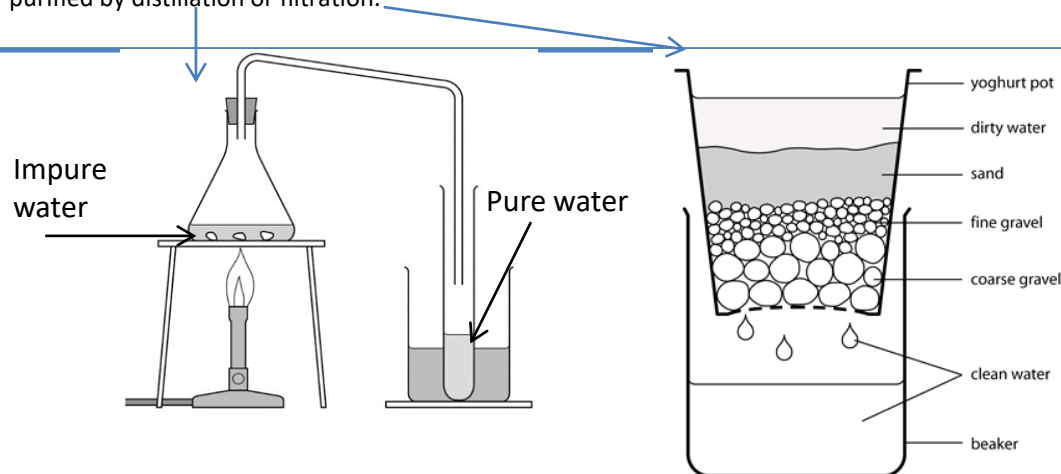
Finite = a resource that will run out. i.e. coal.

Renewable = a resource that will never run out. i.e. the wind.

Everything on earth falls into one of these two definitions. We face the issue of managing our finite resources.

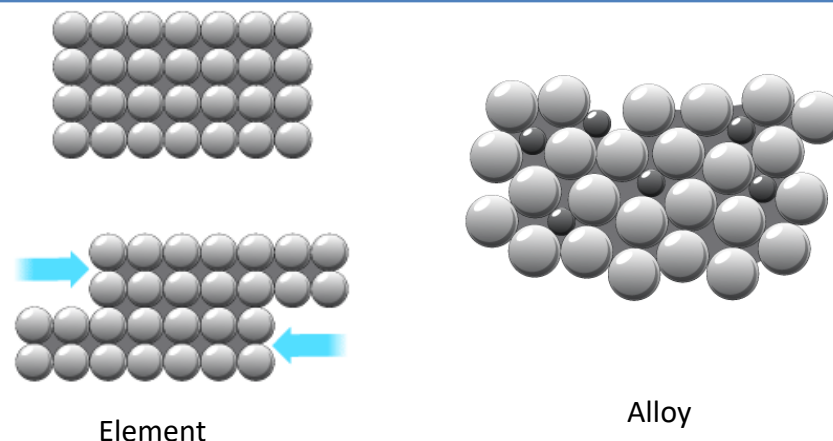
## Water

Water is a renewable resource that cycles around the globe, in this cycle it may pick up contaminants that make it unfit for consumption. It can be tested for different contaminants and purified by distillation or filtration.



## Alloys

This is the name given to a metal that has been mixed with other materials to give it other properties that the pure element lacks. You can see in the diagrams below that a pure metal would slide past each other easily = soft whereas the alloy would do this less easily.



## Reduce, Reuse, Recycle

The best way to minimise the impact you have on the environment is to  
Reduce the amount of product that you use  
Reuse products as much as possible  
Recycle the waste from these products.

## Life Cycle assessments

A product's life cycle can be assessed to decide what raw materials should be used in its construction. Appropriate material and where it is manufactured can then be chosen to minimise the impact on the environment.

## Bioleaching and phytomining

These are 2 techniques that can be used to extract metals from sites that it might not be able to extract the metals from otherwise. Phytomining involves growing plants which extract the metal, the plants are then burnt and the ash is electrolysed.

Bioleaching uses bacteria to extract the metal from the soil.