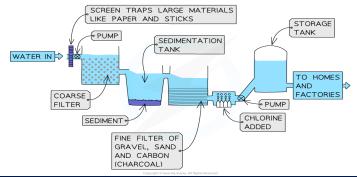


Year 11 Chemistry 10: Using Resources Knowledge Organiser



1. Keywords		
Finite resources	Resources that will run out	
Renewable resources	Resources that can be re-grown or will not run out	
Sustainable develop- ment	Building things with depleting natural resources	
Potable water	Water that is safe to drink	
Pure water	Water without anything added to it Eg 100% $\rm H_2O$	
Desalination	Removing salt by distillation or reverse osmosis	
Sterilisation	Killing bacteria and microbes (eg chlorine, ozone or UV)	
Distillation	Evaporation followed by condensa- tion, uses a lot of energy	
Reverse osmosis	A process using membranes to remove the salt. Uses a lot of energy	
Effluent	Liquid waste sewage discharged into rivers and seas	
Sludge	Solid sewage waste. Dried and used as fertiliser or burned to generate electricity	
Life cycle assessments (LCAs)	A way of assessing the impact of the production transport use and disposal of a product on the environment	

2. Waster water treatment		
	Name	Description
1	Screening	Solid waste and grit removed by a metal grid
2	Primary treatment	Sediments are allowed to settle out from the mixture
3	Secondary treatment	Bacteria feed on the remaining organic waste. The tank has air bubbled through it so aerobic respiration can occur
4	Final treatment	Bacteria allowed to settle out. Water is sterilised and ready to drink



3. Alternative methods of extracting metals (HT ONLY)		
Phytomining	1.Plants absorb metal compounds 2.Plants are harvested and burnt 3.Ash contains metal compounds SOIL CONTAINING LOW PERCENTAGE OF COPPER ORE PLANTS ARE BURNT IN AIR OF COPPER COMPOUND COMPOUND	
Bioleaching	1.Bacteria absorb metal compounds 2.Bacteria excrete a solution of metal called Leachate 3.Electrolysis can extract the metal	