

The Earth's Resources and Sustainable Development		
1	Natural resources	formed from the Earth, sea and air, without human input
2	Finite resources	materials that aren't formed fast enough to be considered replaceable. e.g. fossil fuels
3	Renewable resources	materials that reform at a similar rate as we use them
4	Synthetic products	material made by a chemical process, not naturally occurring
5	Sustainable development	takes account of the needs of current generations, without compromising the ability of future generations to meet their own needs.
Potable water		
6	Potable water	water that is safe to drink
7	Pure water	water that contains only H ₂ O molecules
8	Ground water	water trapped underground in rocks called aquifers
9	Surface water	water that collects when it rains, in rivers, lakes and reservoirs
10	Sterilisation	method used to kill microbes using chlorine gas, ozone or ultraviolet light
11	Filter bed	wire mesh and sand beds used to filter out insoluble solids
12	Desalination	removal of salt from water (uses lots of energy)
13	Distillation	separation process that uses evaporation of liquids followed by condensation
14	Reverse osmosis	process that forces water under pressure through a membrane with tiny holes in it
15	(RP) Purification of water	a. heat the water until it evaporates, and enters the condenser as steam b. drop the temperature of the water inside the condenser to condense the steam back to a liquid c. collect the water produced in a beaker
16	(RP) Testing water purity	pure water boils at 100°C, has a pH of 7, will leave no solid residue when it evaporates

Waste water treatment		
17	Sewage	waste water produced in the home, from baths, toilets etc
18	Agricultural	cultivation of crops or the rearing of animals
19	Aerobic	using oxygen
20	Anaerobic	without oxygen
21	Organic matter	solid waste from natural sources
22	Effluent	liquid waste
	Sewage treatment	a. screening and grit removal b. sedimentation to produce sewage sludge and effluent c. anaerobic digestion of sewage sludge d. aerobic biological treatment of effluent
Alternative methods of extracting metals (HT only)		
23	Ores	rocks containing enough quantities of a mineral for extraction to be possible
24	Phytomining	using plants to absorb metals compounds from the ground through their roots. The plants are burned to produce ash containing high concentrations of metal compounds
25	Bioleaching	using bacteria to extract metals from their ores
26	Electrolysis	decomposition (breakdown) of a compound using an electric current
Life cycle assessments and reducing waste		
27	LCA – Life cycle assessment	analysis of the impact of a manufactured product on the environment during its lifetime
28	Stages of a LCA	a. extracting and processing the raw materials needed b. manufacturing the product and its packaging c. using the product during its lifetime d. disposing of the product at the end of its useful life
29	Reduce	Limiting the finite resources used
30	Recycle	Used materials that are reprocessed to make new materials
31	Landfill sites	Places where refuse is buried underground
32	Environmental impact	Changes to the environment (both adverse and beneficial)

