

Finite and Renewable

What do the words mean??

Finite = Will run out eventually
Renewable = We can replace them as we use them
Sustainable = meets the needs of the current generation without compromising the ability of future generations to meet their needs.



- What do we use the earth's resources for?
- Warmth
 - Shelter
 - Food
 - Transport

We can use them as natural resources or process them.

- 'Natural resources' + agriculture provides
- Food
 - Timber
 - Clothes

- Finite resources are processed to get us
- Energy
 - materials



e.g. Cotton is natural and we grow cotton plants. OR we can use synthetic materials e.g. nylon

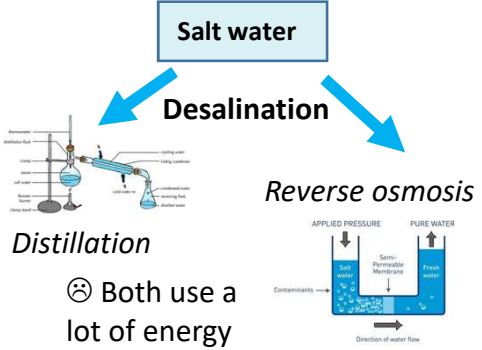
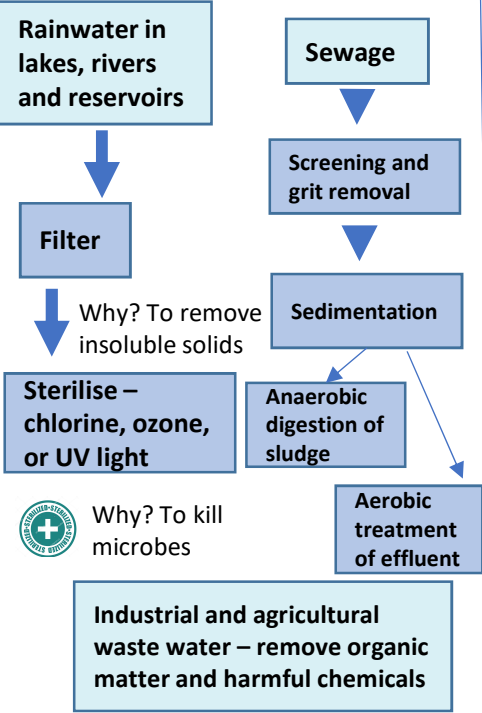
e.g. Coal, oil and gas are used for energy.
 e.g. metal ores are mined to get metals.



L63 – 69 The Earth's Resources

Treating water

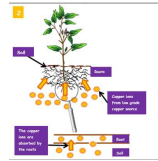
Potable water must have low levels of SALTS and MICROBES (it isn't PURE water)



HT ONLY: Alternative Metal Extraction

Why bother?
 Running out of metal ores

Phytomining



Plants take in copper

- BURN plants
- React ASH with sulphuric acid

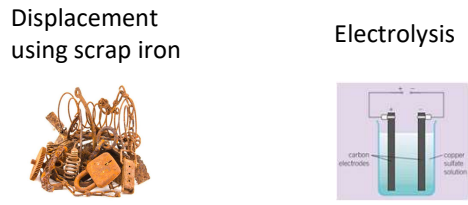
Bioleaching



Bacteria feed on metal ore

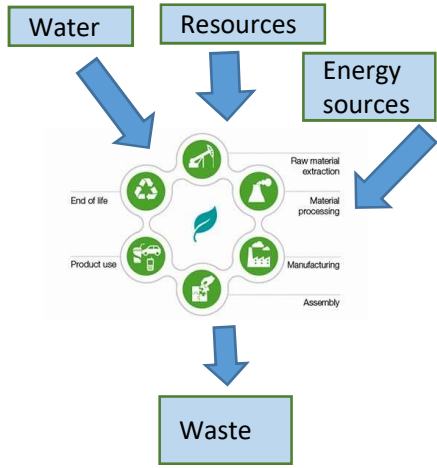
- 'leachate solution' contains copper compounds

How to get the copper from the compound



LCA and RRR

Life Cycle Assessments



Reducing use of resources

Why bother? Reduce...use of limited resources

1 TON OF PLASTIC BAGS EQUALS 11 BARRELS OF OIL

Why bother? Reduce...use of energy resources

Why bother? Reduce...waste and environmental impacts

mining, landfill