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 he 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

Finite resources are processed to get us

- Energymaterials
- Timber
- Clothes



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

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

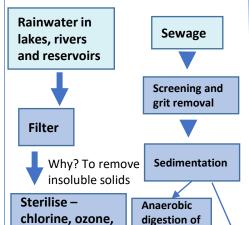


nylon

Treating water

C14 The Earth's Resources

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







sludge

Industrial and agricultural waste water – remove organic matter and harmful chemicals



Distillation

⊗ Both use a lot of energy



HT ONLY: Alternative Metal Extraction

Why bother?
Running out of metal ores

Phytomining



- BURN plants
- React ASH with sulphuric acid

Plants take in copper

Bioleaching



→

Bacteria feed on metal ore 'leachate solution' contains copper compounds

How to get the copper from the compound

Displacement using scrap iron

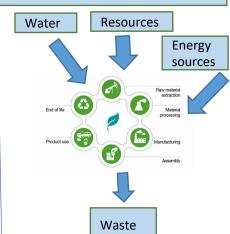


Electrolysis

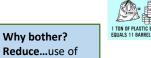


LCA and RRR

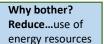
Life Cycle Assessments



Reducing use of resources







limited resources











