

Paper 2

Chapter 10 — Using Resources

Life Cycle Assessment

Life cycle assessments assess the _____ impact of products during the following stages of their production

- E_____ and p_____ of raw materials
- Manufacturing and p_____.
- Use during its lifetime
- Transport and d_____ when it is no longer useful

It is relatively (easy/difficult) to quantify the use of water, resources, energy and production of some waste.

It is more (easy/difficult) to quantify the effect of pollutants.

The effect of pollutants is based on (hard facts/ personal judgements) and so the conclusions are (universally agreed/ based on opinion).

Why might life cycle assessments be written that selectively use data or deliberately miss aspects of a products manufacture?

Fill in the gaps on the LCA's

LCA's	Plastic Bag	Paper Bag
Raw Material	_____	_____
Environmental Impact	High energy to process / Oil spills	Destroy Habitats
Transport	Burning _____ CO ₂ emissions	Burning _____ CO ₂ emissions
Landfill Disposal	Non-Biodegradable	_____
Burning	CO ₂ _____ Warming	Carbon _____
Recycling	High energy to _____ plastic	Relatively _____ energy

Potable Water

What is potable water?

Name two things human drinking water needs to have low levels of to be safe to drink.

- 1.) _____ 2.) _____

Why is potable water not classed as chemically pure?

Where does most of the UK's fresh water with low levels of dissolved salts originally come from?

Name 2 places this water collects before use 1.) _____ 2.) _____

Name 2 things that happen to fresh water before it is classed as potable water.

- 1.) _____ 2.) _____

Name 3 sterilizing agents used to kill microbes and produce potable water

- 1.) _____ 2.) _____ 3.) _____

Why may some places need to use seawater to produce potable water?

What process removes salt from seawater before it can be drunk?

Name 2 methods to remove salt from seawater

- 1.) _____ 2.) Reverse _____ through _____.

Why can these methods be expensive?

Sustainable Development

What is sustainable development?

What is the difference between a finite resource and a renewable resource?

- Finite resources will...
- Renewable resources...

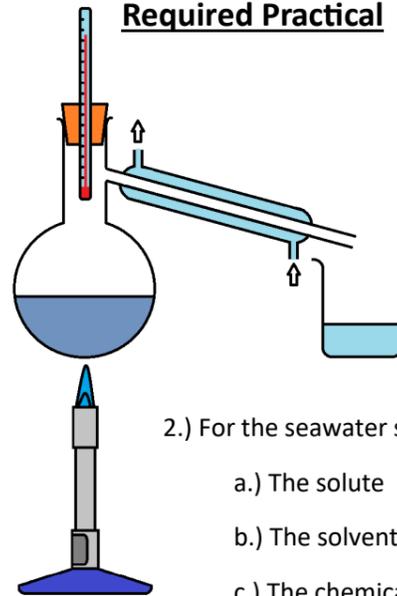
Name 4 things that humans use the Earth's resources to provide.

- 1.) THRAWM 2.) THLEERS
3.) SPORTRANT 4.) DOOF

Name 4 things that come from the Earth's natural resources

- 1.) BIMERT 2.) THINGLOC
3.) OFOD 4.) LUFES

Required Practical



1.) Draw arrows for the labels to the correct part of the equipment

- Liebig Condenser
- Condensation
- Evaporation
- Sea Water
- Distilled Water

2.) For the seawater solution what is...

- a.) The solute
b.) The solvent
c.) The chemical name of the salt

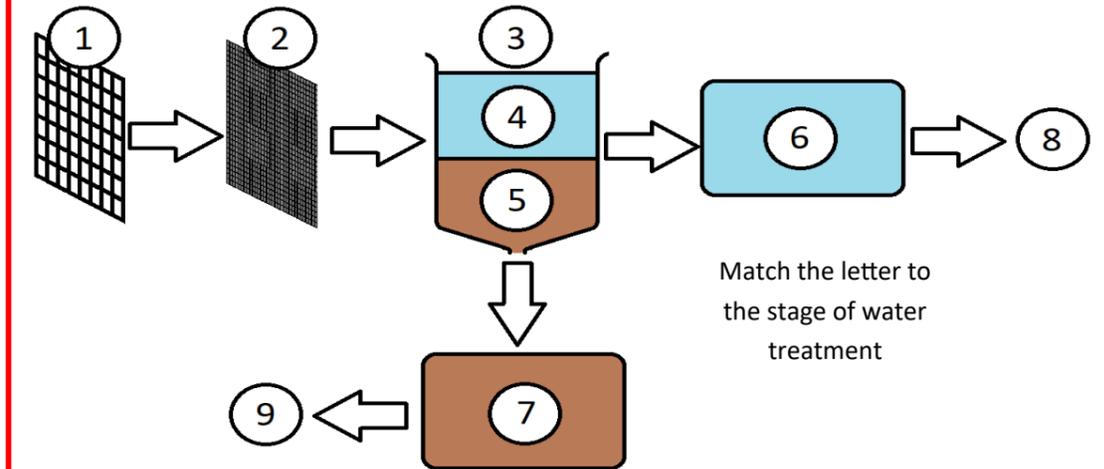
3.) How could you find the pH of a water sample?

4.) How could you find if a water sample contained dissolved solids?

5.) How can you use a thermometer to check the purity of the water?

Waste Water Treatment

Waste Water may contain WEAGES, agricultural and DUSTLIARIN waste. It may need GRAINOC matter, harmful SCORBEIM or SCHIMELAC to be removed.



Match the letter to the stage of water treatment

- a) Sewage Sludge f) Grit Removal
b) Effluent g) Sedimentation Tank
c) Anaerobic Digestion of Sewage Sludge h) Aerobic Biological Treatment of Effluent
d) Methane Gas i) Released to the Environment
e) Screening to remove large solids

Reduce Reuse Recycle

Name 4 things that "Reduce, Reuse, Recycle" aims to lower.

- 1.) Use of limited _____ 2.) Use of _____ sources
3.) Amount of _____ 4.) _____ impacts

Solve the anagrams for 5 things produced from limited raw materials.

STALEM ALSGS SLAPSTIC
SCICREAM DINGLUBI LIARMATES

Name 2 ways raw materials can be obtained from the Earth that cause large environmental impacts.

Glass bottles can be reused or can be _____ and _____ to make new glass products.

Metals can be recycled by _____ and re _____ into new products.

Scrap _____ can be added to iron in the _____ furnace. This _____ the amount of iron that is extracted from iron _____.

