

Year 4: Environmental Engineers

1. Terms	Definitions
Water distribution	The way in which water is taken to people's homes and work places – normally by pipes.
Reservoir	A man made lake built to collect water.
Infrastructure	The buildings and systems within an area, e.g. sewage works, electricity lines, houses, schools, roads.
Sewage	Water that has been used and often contains waste – from the toilet, washing up, bath water etc.
Water stress	When a country does not have enough water to meet the needs of its people.
Drought	Not enough rainfall, which leads to a lack of water.
Shanty towns	A poor area on the outside of towns. Houses are not built well.

5. Water Aid

- 1 in 10 people do not have access to clean water close to their home. Usually in **developing** (poorer) countries
- 31% of schools do not have clean water.
- Millions of children spend their day walking to collect water, which isn't even clean. They miss out on school because of this journey.
- **Water Aid** aim to provide clean water, decent toilets and good hygiene to everyone.



4. Shanty Towns and water

- Shanty towns often have water shortages and very bad quality housing.
- Large number of people live in one room made out of cupboard and metal.
- People often get very ill in shanty towns because of the cramped conditions.

Why are there water shortages in shanty towns?

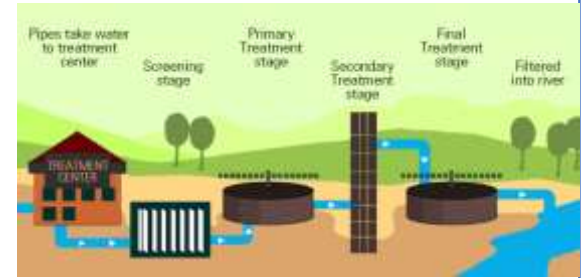
- **Overcrowding/overpopulation** – too many people in a very small area
- Lack of **infrastructure** – there are not many toilets and poorly built sewage systems. People will often go to the toilet in the street.
- Lack of clean water – no water treatment works.



2. Water is essential!

What do we use water for?

- Drinking
- Washing
- Growing crops for food
- Growing plants and trees

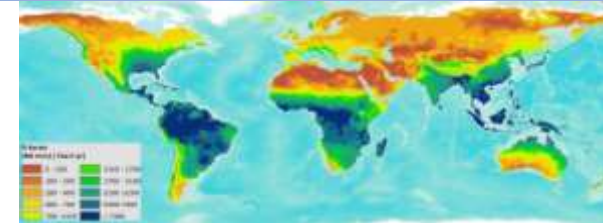


How do we get water?

- Water that we use at home – to clean the dishes, have a bath or go to the toilet – is recycled, so it can be cleaned and reused.
- Water that is used travels through sewers to a water treatment plant, where is returned to rivers or the sea.
- **Reservoirs** collect water from rain and rivers.
- Water is pumped to a water treatment plant, where it is cleaned, ready for us to use.
- Water must be cleaned before we can use it, otherwise it can make us really ill.

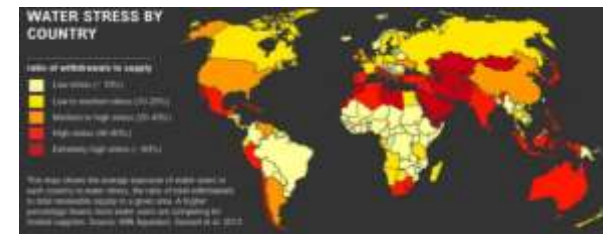
3. Maps

Map showing rainfall around the world



Blue/ green areas = most rainfall Red/ orange areas = least rainfall

Map showing water stress around the world



- Areas that have the least amount of rainfall have the highest level of **water stress** (shaded red).
- The Middle East and North African countries have the highest levels of water stress in the world.