

## Necessity of water

We all know that water is absolutely necessary for life but the majority of people living in countries rich in water for example the UK and America don't really understand how precious water is and how society in more economically developed countries (MEDC's) would collapse without it. We can split the uses of water into four basic categories these are domestic, industry, agriculture, leisure they can be abbreviated by DIAL. Domestic water use is water that is used inside and outside of people homes. People water in homes for a number of different purposes for example drinking, preparing food, bathing, washing clothes and dishes, brushing your teeth, etc. many homes have a leaky tap somewhere a small drip from a tap can waste as much as 75 litres of water per day that is 27375 litres of water per year. This is a lot of water considering that About 70 percent of the earth is covered by water and only 2.5% as fresh water and suitable for us to drink leaving a massive 97.5% of water salty causing it undrinkable as salt cause cells in the body to dehydrate so given that you drank enough of it salty water will kill you. This

table shows how much water people use wasting water compared to saving water.

INSIDE ACTIVITY	GALLONS USED (conventional)	GALLONS USED (water saving*)
Toilet Flushing	5 - 7 gallons per flush	1½ - 3½ gallons per flush
Shower (water running)	7 - 10 gallons per minute	2 - 4 gallons per minute
Bath (Full tub)	36 - 50 gallons (conventional)	30 - 40 gallons (conventional) 40 - 80 gallons (whirlpool)
Laundry Machine (full load)	60 gallons top loader	42 gallons top loader
Dishwasher	15 gallons normal load	7½ - 10 gallons normal load
Dish washing by hand	30 gallons tap running	10 - 20 gallons tap running
Shaving	20 gallons tap running	2 - 5 gallons tap running
Brushing Teeth	10 gallons tap running	2 - 3 gallons tap running
Washing Hands	2 gallons tap running	1 - 2 gallons tap running

### It takes...

10 liters of water to make one sheet of PAPER	40 liters of water to make one slice of BREAD
70 liters of water to make one APPLE	80 liters of water per dollar of INDUSTRIAL PRODUCT
91 liters of water to make one pound of PLASTIC	120 liters of water to make one glass of WINE
140 liters of water to make one cup of COFFEE	1,300 liters of water to make one kilogram of WHEAT
4,800 liters of water to make one kilogram of PORK	10,855 liters of water to make one pair of JEANS
15,500 liters	16,600 liters

Industrial water use is water that is used in industry to create products it is likely that every manufactured product uses water during some part of the production process. The image shows the amount of water needed to make some products:

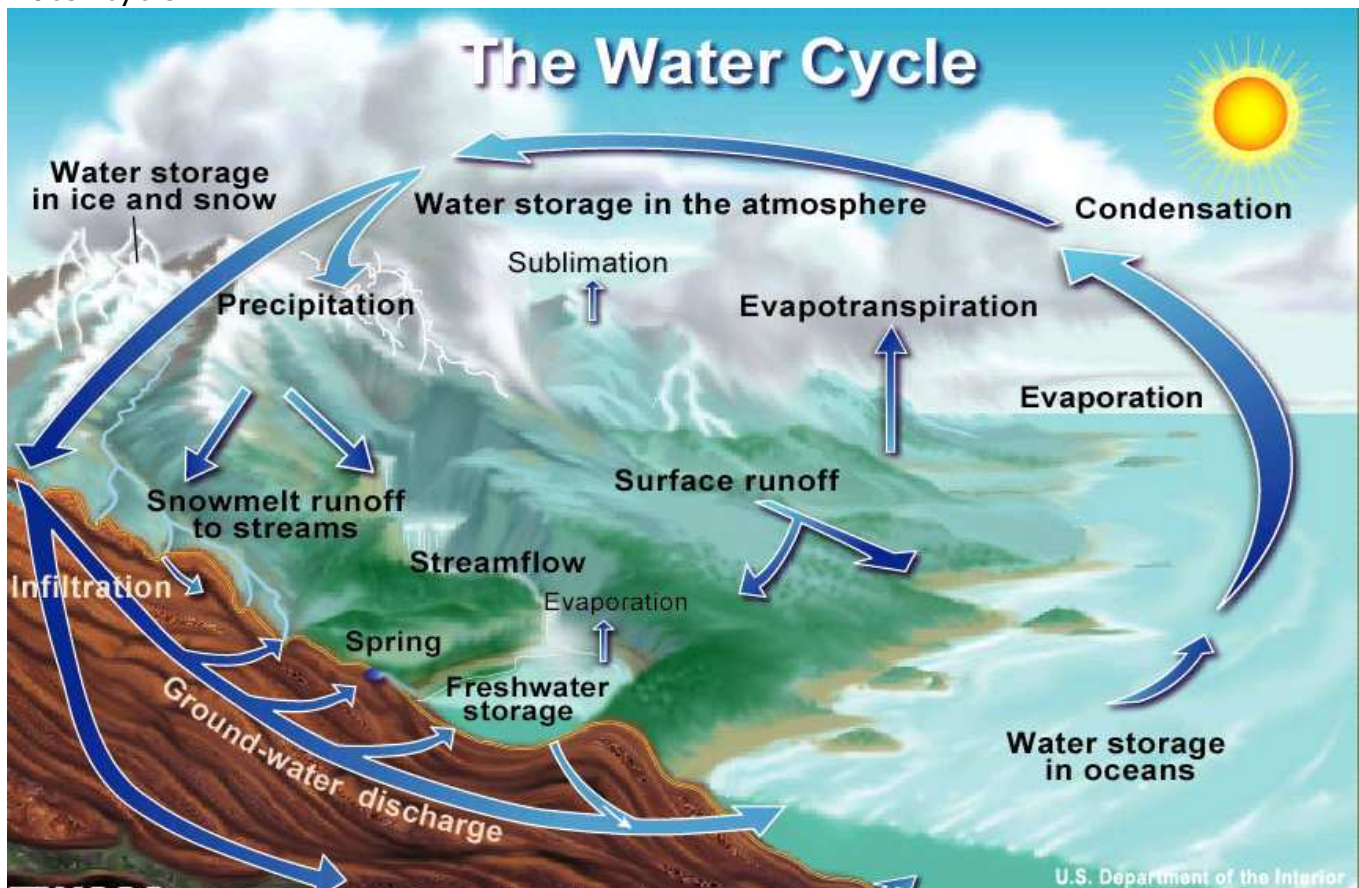
Product (equal to 1 unit)	Equivalent water in m <sup>3</sup> per unit
Cattle	4000
Sheep and goats	500
Fresh beef	15
Fresh lamb	10
fresh poultry	6
Cereals	1.5
Citrus fruits	1
Palm oil	2
Pulses, roots and tubers	1

Water is used in agriculture mainly to produce food Up to 70 % of the water we take from rivers and groundwater goes into agriculture the table shows how much water is needed for some basic everyday food.

Finally water is used in leisure for things such as water parks, water skiing, swimming/pools, etc. By many people this

could be seen as a huge waste of fresh water as thousands of litres of water is used to supply these leisure based activities with water that would be more helpful to a less economically developed country (LEDC) because an LEDC is more likely to have contaminated water due to not having a suitable means of filtering the water.

There are many reasons why water cannot be increased in demand the main one would be that the volume of water on the planet hasn't changed in over 3 billion years. This is mainly due to the hydrological or water cycle. The **hydrological** cycle uses the heat from the sun to heat up water on the ground, in rivers and oceans until some of the water **evaporates** into a vapour becoming **less dense** then the air around it and rises it then forms a cloud of vapour that is able to be blown by the wind, when the water vapour **condenses** it turns into **perspiration** which falls to the earth and the cycle starts over again. The image bellow will enable you get a better more detailed explanation of the water cycle.



To enable the minimum amount of water to be lost water companies try to recycle all the water they can by recirculation the used water through chemicals and other processes to cleanse the water.