**The Water Cycle and Water Insecurity**

**Anticyclone**​ - ​A system of high pressure, causing high temperatures and unseasonably high evaporation rates.

**Aquifer**​ - ​A permeable or porous rock which stores water

**Channel Flow**​ ​- Water flowing in a rivulet, stream or river

**Convectional Precipitation**​ ​- Solar radiation heats the air above the ground, causing it to rise, cool & condense forming precipitation (often as thunderstorms)

**Cryosphere**​ ​- The global water volume locked up within a frozen state (i.e. snow and ice)

**Depression**​ - ​A system of low pressure, with fronts of precipitation where low and high pressure air masses meet.

**Desalination Plant**​ ​- The conversion of seawater to freshwater, suitable for human consumption.

**Desublimation**​ - ​The change of state of water from gas to solid, without being a liquid (the opposite process to sublimation)

**Drainage Basin**​ ​- The area of land drained by a river and its tributaries

**Drainage Density**​ ​- The total length of all rivers & streams divided by the area of the drainage basin

**Drought**​ ​- An extended period of deficient rainfall relative to the statistical average for the region (UN)

**Economic Water Scarcity**​ ​- When water resources are available but insufficient economic wealth limits access to it

**ENSO Cycles**​ ​- El Nino Southern Oscillations - naturally occurring phenomena that involves the movement of warm water in the Equatorial Pacific.

**Evapotranspiration**​ ​- The combined total moisture transferred from the Earth to the atmosphere, through evaporation and transpiration

**Frontal Precipitation**​ ​- Where air masses of different temperatures meet at a front, one mass will be forced over another, causing precipitation beneath the front.

**Global Hydrological Cycle**​ ​- The continuous transfer of water between land, atmosphere and oceans. The Earth is a closed system.

**Groundwater Flow**​ ​- Water moving horizontally through permeable or porous rock due to Gravity.

**Hydrological Drought**​ ​- Insufficient soil moisture to meet the needs of vegetation at a particular time

**Infiltration**​ ​- The movement of water vertically through the pores in soil.

**Integrated Drainage Basin Management**​​- Establishing a frame of coordinated efforts between administrations (e.g. local government) and stakeholders (e.g businesses) to achieve balanced management of a basin (World Bank)

**Interception**​ ​- Raindrops are prevented from falling directly onto the ground, instead hitting the leaves of a tree.

**Meteorological Drought**​ ​- When long-term precipitation trends are below average

**Monsoon**​ ​- The drastic variation between wet and dry seasons for sub-tropical areas, caused by a changed prevailing wind. Can lead to annual flooding.

**Open System**​ ​- A system affected by external flows and inputs (such as a drainage basin, or a sediment cell)

**Percolation**​ ​- Water moving vertically from soil into permeable rock

**Physical Water Scarcity**​ ​- A physical lack of available freshwater which cannot meet demand

**Relief Precipitation**​ ​- Precipitation caused when air masses are forced to rise over high land, determined by the relief/ morphology of the land

**River Regime**​ - The pattern of river discharge over a year

**Runoff**​ ​- Water flowing over the surface of the ground eg. after precipitation or snowmelt.

**Salinisation**​ - ​Where salt water contaminates freshwater stores or soils, creating saline conditions and reducing human use/ consumption.

**Saltwater Encroachment**​​- The movement of saltwater into freshwater aquifers or soils. This may be caused by sea level rise, storm surges or over-extraction

**Smart Irrigation**​ ​- Providing crops with a water supply less than optimal, to make crops resistant to water shortages.

**Storm Hydrograph**​​- ​Variation of river discharge over a short period of time (days)

**Sublimation -**​ ​The change of state of water from solid to a gas, without being a liquid.

**Throughflow**​ **-**​ ​Water moving horizontally through the soil, due to gravity

**Transpiration**​ ​- The process through which water evaporates through the stomata in plants' leaves

**Water Budget**​ ​- The annual balance between inputs and outputs within a system

**Water Conservation**​ - ​Strategies to reduce water usage and demand

**Water Recycling**​ -​ The treatment and purification of waste water, to increase supply

**Water Scarcity**​ - ​There are limited renewable water sources (between 500 and 1000 cubic metres per capita per year)

**Water Security**​ ​- The ability to protect and access a sustainable source to adequately meet demand

**Water Sharing Treaty**​ ​- International agreements for transboundary sources

**Water Transfer**​ -​ Hard engineering projects, such as pipelines or aqueducts, that divert water between basins to meet demand

**Watershed**​ - ​The boundary between neighbouring drainage basins