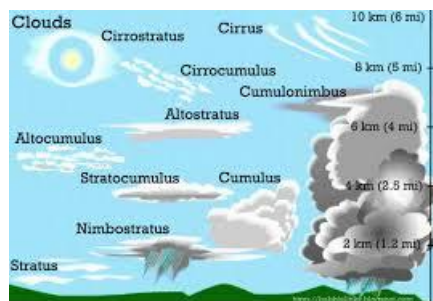


Knowledge Organiser for Year 4 – Water Cycle

Big question: Why does it rain?

National curriculum specification

- Describe and understand the aspects of physical geography including the water cycle.



Key facts

Changing state	<ul style="list-style-type: none"> Water can be found in three states: liquid, solid and gas.
Water cycle	<ul style="list-style-type: none"> Evaporation – energy from the sun heats up the Earth, causing the temperature of the water in the sea, rivers, lakes etc to rise up. Some of this water evaporates into the air and turns into vapour. Condensation – As water vapour rises into the sky, it cools and turns back into a liquid, forming clouds. Precipitation – When too much water and condensed, the water droplets in the clouds become heavy. They fall back to the Earth as rain, sleet, hail or snow. Collection – The fallen precipitation is collected in large bodies of water and will eventually evaporate again, continuing the cycle.
Cloud names	<ul style="list-style-type: none"> Stratus/strato – flat or layered, smooth. Cumulus/cumulo – heaped up and puffy, like a cauliflower Cirrus/cirro – high up and wispy Alto – medium level Nimbus/nimbo – rain-bearing
Clean water	<ul style="list-style-type: none"> To make clean, drinking water, water is first stored in reservoirs to allow solids to settle at the bottom and remove large objects. Chemicals are added to make small particles stick together and sink to the bottom, which is then removed. The water filters through gravel and carbon to filter out fine particles and any traces of pesticides. Chlorine is added to kill off bacteria. The water is clean and safe to drink and is distributed to our taps.
Flooding	<ul style="list-style-type: none"> There are 4 main types of flooding – Fluvial (caused by bursting river banks), Pluvial (caused by rainwater), Coastal (high tides and storms) and Plumbing (broken water pipes) Flooding can be prevented by building dams or flood barriers.
Water pollution	<ul style="list-style-type: none"> Chemicals, litter and fertilisers are just a few causes of water pollution, and are harmful to any marine life.

- Pollution can be reduced by being mindful of what we pour down our drains or flush down the toilet, use environmentally friendly household products and not throwing litter into, or near, bodies of water.
- Governments can also contribute to this cause by introducing legislation to ensure businesses dispose of waste responsibly.

Vocabulary/ Tier 3

Evaporation	When water changes from liquid to gas due to heat.
Condensation	When water vapour cools and turns into clouds.
Precipitation	Rain, hail, sleet and snow that falls from the clouds.
Pollution	The presence of harmful substances in the environment.
Bank	The two sides of a river channel.
Bed	The bottom of a river channel.
Reservoir	A lake created by humans for storing water.
River	A large, natural stream of water.
Sea	A large area of salty water than covers most of the Earth's surface.