Knowledge Organiser - Year 1 - Science: Seasonal Change

The seasons, spring, summer, autumn and winter, are four quarters of the year that are distinguished by special weather conditions. Each has its own light, temperature, and weather patterns that repeat yearly.

Key Vocabulary

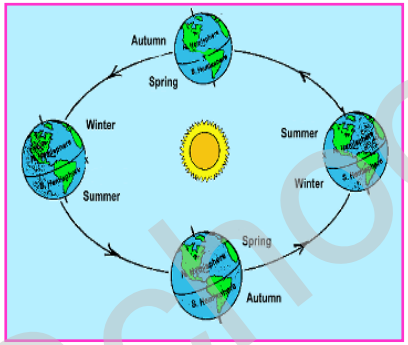
Atmosphere	This is the layer of gases surrounding the Earth. We might call it the sky or our air.
Autumn	The season of the year that lasts from September to November.
Blizzard	A powerful snow storm with high winds.
Climate	The weather conditions in a particular area.
Day length	The time each day from sunrise to sunset. This amount of time varies according to the seasons.
Daylight	Daylight is the light produced by the sun that gives us our natural light on Earth.
Heat wave	A long period of time with unusually hot weather for that area.
Humid	When the air contains a lot of water vapour making the weather conditions feel muggy, close or sticky.
Lightning	This happens when a natural, short, electrical charge is released between a cloud and the ground or within a cloud, causing a bright flash of light in the sky and usually also the sound of thunder.
Migration	The movement of animals and birds from one country to another caused by the weather changing from season to season.
Spring	The season of the year that lasts from March to June.
Summer	The season of the year that lasts from June to September.
Temperature	Measured on a thermometer, temperature is how hot the weather is.
Thunderstorm	This is also known as an electrical storm or a lightning storm, and is when lightning, thunder and often heavy rain happen at the same time. The thunder is the sound of the lightning moving through the air at high speed.
Weather	Weather is the day-to-day or hour-to-hour change in the atmosphere. Weather includes wind, lightning, storms, hurricanes, tornadoes, rain, hail, snow, and many more. Energy from the Sun affects the weather.
Winter	The season of the year that lasts from December to March.

Working Scientifically

Pupils should observe and talk about changes in the weather and the seasons. Pupils might work scientifically by: making tables and charts about the weather; and making displays of what happens in the world around them, including day length, as the seasons change. They should use simple features to compare objects, materials and living things and, with help, decide how to sort and group them. They need to observe changes over time, and, with guidance, they should begin to notice patterns and relationships.

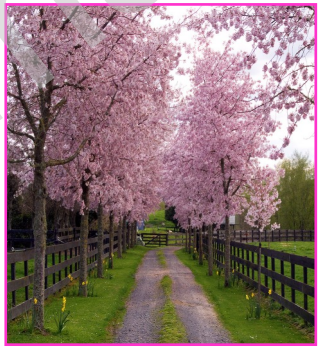
Key Question: How does the weather change during the year in each season?

The timing and type of season that you experience depends on where you are on Earth. Areas near the equator have an even temperature throughout the year, with warm winters very similar to the hot summers. This is because the equator gets constant light from the sun, due to its position on the outer curve of the Earth. If you live in the North or South of the planet your seasons will be very different.



This is caused by the Earth being on a tilt. This puts areas of the Earth nearer the sun at different times of year as it circles the sun. Where we are, in the North, we have our summer in August but on the other side of the planet in Australia they are tilted away and have their winter in August!

Winter is the season between autumn and spring. The weather is at its coldest and animals and birds have migrated so that they can winter in warmer countries. Some areas may experience snow or ice, while others see only cold rain. Animals find ways to warm themselves, and may have changed their appearance to adapt to the climate. Arctic hares turn white in the winter to match the colour of the snow to avoid being seen and eaten. Hedgehogs hibernate and sleep through the winter when there is less food to save their energy.



Spring is the season of the year between winter and summer, As the weather becomes warmer and often wetter, seeds take root, leaves and plants start to grow again and flowers appear. Animals wake or return from warmer climates, often with newborns. Melting snow from the previous season, along with increased rainfall, can cause flooding along rivers.

Summer is the season of the year between spring and autumn when the weather is warmest. In the summer, temperatures may increase to their hottest of the year. If they are too high, heat waves or droughts may cause trouble for people, animals and plants. Forest fires may occur. Animals have plenty of food as insects breed quickly in summer.

Autumn is the third season of the year, coming after summer and before winter, when temperatures cool again. This is when leaves from certain trees drop off as they go into a winter rest, which is why autumn is also called 'fall' in America. Plants may stop growing (become dormant). Animals and birds might prepare themselves for the upcoming cold weather by storing food or travelling to warmer countries. Often the harvesting of crops and fruit is celebrated with annual festivals.