

Winter

Fact Sheet for Adults

General Facts

- Winter is a season of the year. It occurs after autumn and before spring. In the northern hemisphere it is broadly from December to March and in the southern hemisphere it is from July to August.
- Winter occurs at different times of the year around the world, based on which part of the Earth is tilted away from the sun. When parts of the Earth are tilted away from the sun, it will be autumn or winter. When they are tilted towards the sun, it will be spring and summer.
- The tilt of the Earth also means that during autumn and winter, the amount of sunlight in certain parts of the world will be shorter. This makes the days seem shorter.
- There are 3 main ways of describing when seasons begin and end: meteorological, astronomical and phenological.
 - **Meteorological:** In the UK, winter is meteorologically defined as the months of December, January and February. Met Office in the UK uses this method to describe seasons and record weather and climate records and statistics.
 - **Astronomical:** Using an astronomical method to define the seasons is based on where the sun is shining on the Earth's surface. Winter begins on the solstice, near the end of December. Winter ends with the spring equinox near the end of March.
 - **Phenological:** Using a phenological method to define the seasons is based on observational changes of plants and animals. People use these definitions to describe when winter begins based on changes like animal migration hibernation.
- During winter in the UK, since the Earth is tilted away from the sun, the weather becomes much colder and is usually rainy and windy. It can be icy or snowy too.
- During autumn and winter months, deciduous trees lose their leaves. During spring and summer, leaves produce food for the tree using a process called photosynthesis and a green pigment in the leaves called chlorophyll. However, during the colder winter months, there is not enough light for photosynthesis, so the trees rest and use the food stored during summer months to stay alive. The amount of green chlorophyll in the leaves is reduced and makes them change colour to yellow, orange, reds and browns as they fall from trees during the autumn.
- During winter months, many animals, birds and minibeasts adapt to the colder temperatures. Some build up reserves of food, some hibernate and some migrate to warmer places.
 - **Mammals:** During winter months, many mammals grow thicker fur coats, such as foxes, badgers, dogs and cats. These help to keep the animals warm during the colder months and some also change colour to blend in with snowy environments, such as some types of weasels. As winter approaches, some animals gather stocks of food to eat during the winter, such as squirrels.
 - **Hedgehogs:** During the autumn, hedgehogs eat lots of extra food to build up extra body fat. Hedgehogs then hibernate through the winter. Hibernation is when animals go into a deep sleep that helps them to conserve energy and survive the winter without eating much food. During hibernation, the animal's temperature drops and its heart rate and breathing slow down. The only other British animals that hibernate during winter months are dormice and bats.
 - **Birds:** As winter approaches, there are less insects and other foods for birds to eat. In autumn, many birds, such as swallows and house martins, fly south to warmer areas where there is more food to eat. This is called migration.

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- During winter months, evergreen trees and plants are often more prominently seen. These include many types of conifer trees and holly bushes.
- Many festivals and celebrations happen during the autumn. These include Christmas, Hanukkah, New Year festivals, Burns Night, Chinese New Year
 - **Christmas:** Christmas is a religious and cultural celebration in December, with Christmas Day being the main day of celebration on the 25th December. It is celebrated in many places around the world. The annual festival commemorates the birth of Jesus.
 - **Hanukkah:** Hanukkah is an eight-day Jewish festival between late November and late December. It is sometimes known as Chanukkah and the Jewish Festival of Light. This festival commemorates the rededication of the Holy Temple in Jerusalem after a Jewish victory over the Syrian-Greek soldiers. On each of the eight nights during the festival, special candles are lit on a Hanukkah Menorah, often called a hanukkiyah.
 - **New Year:** New Year celebrations often take place in early January, marking the start of a new year in the Gregorian calendar. It is celebrated in many places around the world. People often celebrate the new year with fireworks, parties and by making New Year Resolutions of their aims and hopes for the coming year.
 - **Burns Night:** Burns Night is most often celebrated in Scotland. It celebrates the birth of Robert Burns, an 18th century poet. It is celebrated by eating a Burns Supper of haggis, turnips and potatoes. People often recite the works of Burns, including the song Auld Lang Syne.
 - **Chinese New Year:** Chinese New Year is often celebrated in January or February, for a duration of around 14 days. It celebrates the start of the new year based on the Chinese lunar calendar. During the festival, homes are often cleaned and decorated with flowers and colourful paper lanterns. Children often receive lucky red envelopes containing money and new clothes to wear during the festival. People also watch firework displays and visit relatives and friends.

Fun Facts

- The term 'winter' is believed to come from the Germanic word 'wintar', which is derived from the root word 'wed' meaning 'water' or 'wet', which signifies a wet, rainy season.
- The 'solstice' is derived from Latin and means 'sun stands still'. This is because during a solstice the sun appears to remain still in the sky. During the winter solstice, in the northern hemisphere, there is the shortest day and the longest night of the year.

Take a look at our Winter Fact Cards within this [Winter Discovery Sack](#) insert for some more fun facts!