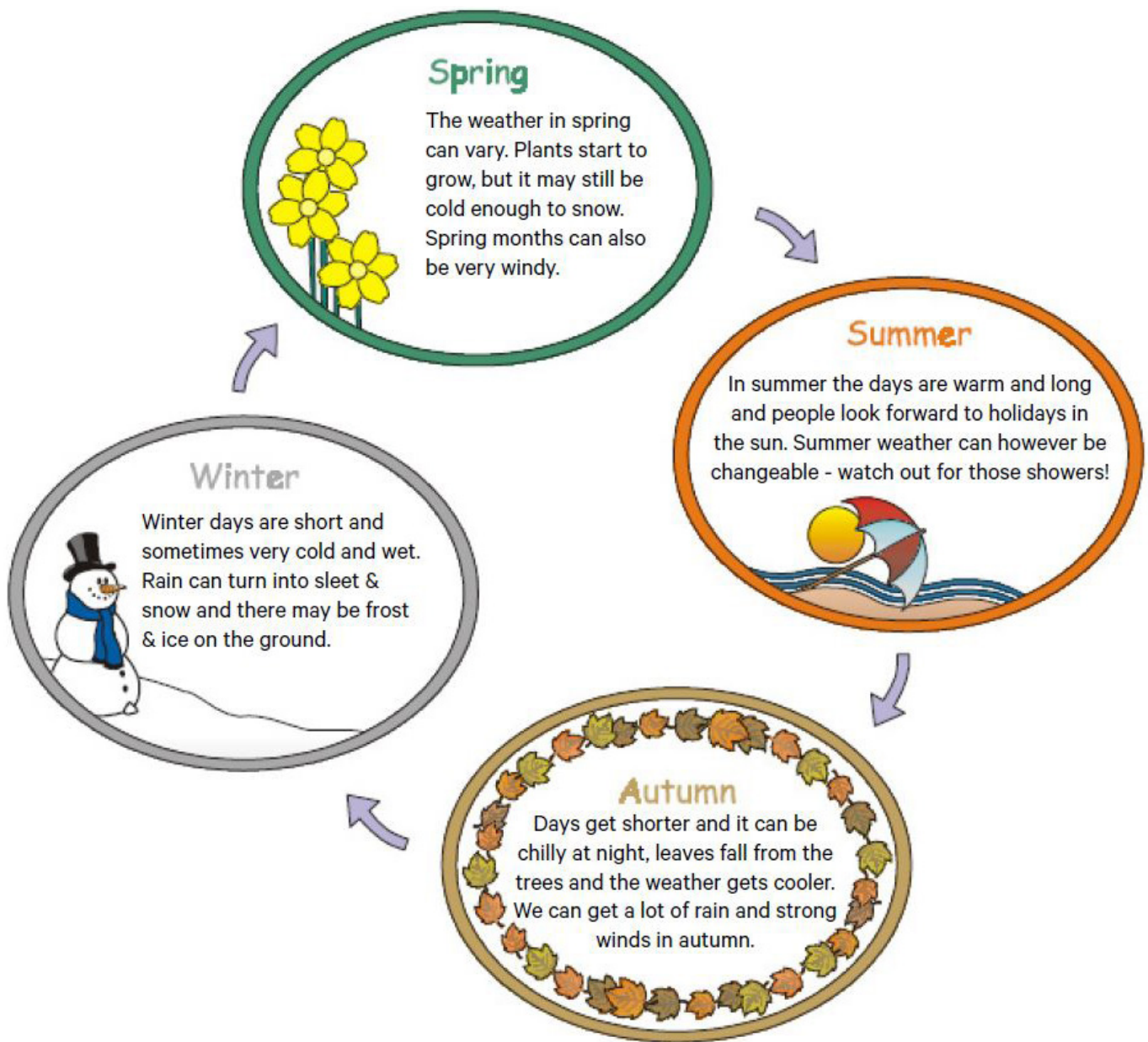


Weather and Climate

When we talk about the **weather** we might say it is cloudy, sunny, wet or windy. We are really describing the conditions in the atmosphere and the air around us at a particular moment.

In Britain we have four different **seasons** each with different weather.



Rain

In Britain we get a lot of rain. But where does it come from?



Clouds are made up tiny droplets of water. These droplets merge together and grow into larger drops that eventually become too heavy to float in the air so they drop out of clouds as drops of **rain**.



There are different types of rain. **Drizzle** is very light rain made of small droplets. In storms, you can see much larger droplets.



If the weather is very cold and the air is freezing (0° C or less), we get **sleet** and **snow** instead of rain.

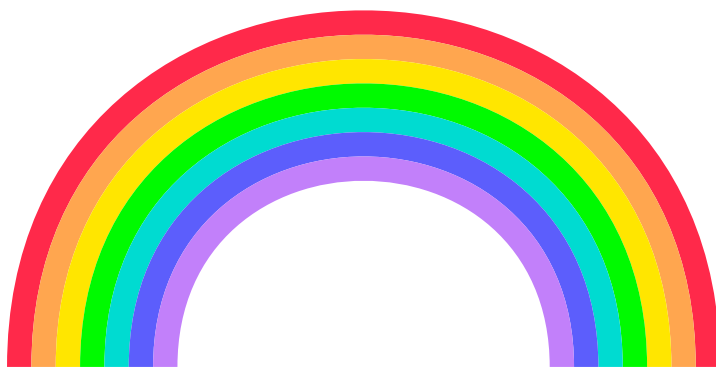


Fog is like a cloud close to the ground and is made up of very tiny droplets of water. When there are a lot of water droplets, the fog is dense and it can be difficult to see your way ahead. **Mist** is a very thin fog with few water droplets.



Thunderstorms can be very dramatic! **Lightning** is a giant electric spark leaping between clouds or to the ground. The **thunder** is the shockwave that occurs when this happens. We see the lightning before we hear the thunder because light travels faster than sound.

Rainbows



When it is raining and the sun is shining, we can often see rainbows.

Sunlight is made of seven colours red, orange, yellow, green, blue, indigo and violet.

Rainbows are made when rays of sunlight are split by raindrops, which act as tiny prisms, into these seven colours

Red is always on the outside and violet on the inside. To help you remember the order of rainbow colours, think...Richard Of York Gave Battle In Vain. Why not make up your own sentence!

The pot of gold?

People say if you reach the end of the rainbow, there is a pot of gold! However, rainbows are just an optical illusion. The sun must always be at your back to see a rainbow – and the rainbow will move as you move ...so you can never reach that pot of gold!

Climate change

The word climate is used to sum up what the weather is like over a long period of time – for example 30 years. Scientists believe that the world's climate is changing and that our climate in general is getting warmer.

In Great Britain scientists have noticed:

- we have more heatwaves in summer
- we have fewer frosts and winter cold spells
- over the last 200 years our winters have become much wetter
- the average sea level around the UK is now about 10cm higher than it was in 1900
- rainfall patterns are changing

Factoid

In winter of 1962-63, Dorset experienced the coldest winter for over 200 years! The snow was 15cm deep and the roads like skating rinks!

Find out more

The Met Office has a very good website where you can find out more about weather and climate.

<https://www.metoffice.gov.uk/>

Did you know?

If you shine a torch through a prism, you will see the beam of light split into the seven colours.