

Science Knowledge Organiser (Autumn 1 and 2)

Seasonal Changes (Autumn and Winter)

Yr 1

Main Foci: Physics

What should I already know?

- There are times when it is hot outside and there are times when it is cold outside.
- The **months** of the year.

Vocabulary

autumn	Autumn is the season between summer and winter when the weather becomes colder and the leaves fall off the trees
chilly	very cold
cold	If it is cold , the temperature is very low
conkers	round brown nuts which come from horse chestnut trees
day length	the amount of time where there is daylight.
daylight	Daylight is the natural light that there is during the day, before it gets dark
deciduous	a tree that loses its leaves in the autumn every year
freeze	When it freezes outside, the temperature falls below 0 degrees.
frost	the ground becomes covered in ice crystals
hibernate	Animals that hibernate spend the winter in a state like a deep sleep
ice	Ice is frozen water
migrate	when animals move at a particular season from one part of the world to another
months	one of the twelve times of time that a year is divided into
nature	the animals, plants, and other things in the world that are not made by people
rain	Rain is water that falls from the clouds in small drops
season	the main times of year which can be divided and which have their own typical weather
slightly	a little bit
snow	soft white bits of frozen water that fall from the sky in cold weather
spring	the season between winter and summer when the weather becomes warmer and plants start to grow again
summer	the season between spring and autumn when the weather is usually warm or hot
sunny	when the sun is shining brightly
temperature	a measure of how hot or cold something is
warm	when there is some heat but not enough to be hot
weather	what the sky and air outside are like, such as cold or sunny .
windy	when the wind is blowing
winter	the season between autumn and spring when the weather is usually cold

Procedural Knowledge

- Go on an **autumn nature** walk - what signs of **autumn** can you spot?
- Measure the **temperature** every day - what do you notice about the difference in **temperature** from the start of the unit to the end?
- Match events to the **seasons** they happen in? What is **weather** like during these events (e.g. Christmas Day, Halloween, Bonfire Night?)
- Discuss why it is good that fireworks happen in the **autumn**. What would happen if the happened in the **summer**?
- Discuss what happens when the children go home from school in the **autumn** and **winter** - what do they notice about daylight? Compare this to what happens in the **summer**.
- Analyse simple graphs that show how **day length** changes throughout the seasons.
- Research animals that **hibernate** or **migrate** in **winter** months.

What will I know by the end of the unit?

What is a **season**?

- There are four **seasons**
 - **Autumn** - September, October, November
 - **Winter** - December, January, February
 - **Spring** - March, April, May
 - **Summer** - June, July, August



autumn



winter



spring



summer

What happens in the **autumn**?



autumn

- The **temperature** begins to fall, which means it gets **colder**.
- The leaves on **deciduous** trees change colour and begin to fall to the ground.
- The days get shorter and the nights get longer.
- In the **autumn**, there are events such as Halloween and Bonfire Night.
- Things people might do are rake leaves, pick blackberries and collect **conkers** and pine cones.



blackberries



pine cones



conkers

- The **weather** may be **slightly sunny**, **windy** or **rainy**. There are more **clouds** in the sky during **autumn** compared to the **summer**.



sunny



windy



rainy

- The clothes you might wear include t-shirts and shorts on **sunnier** and **warmer** days, and woolly hats and scarves on **colder** days - especially as it gets closer to **winter**.



t shirt



shorts



scarves



gloves

What happens in the **winter**?



winter



ice



frost

- As the **seasons** change from **autumn** to **winter** it gets **colder** still - this is because the **temperature** has fallen.
- Sometimes, it can **freeze** overnight and in the mornings, there may be **ice** and **frost**.
- **Deciduous** trees have completely lost their leaves and the branches are bare.
- The days get shorter and the nights get longer. **Winter** has the shortest days and the longest nights of all the **seasons**.
- In the **winter**, there are events such as Christmas and Valentine's Day.
- Things people might do are build snowmen, eat warm foods like stews and soups and light fires.



soup



stew



snowmen

- The **weather** may be **windy**, **rainy** and **chilly**. Sometimes it also **snows**.
- The clothes you might wear include **warm** coats, jumpers, woolly hats and scarves on **colder** days.



coat



jumper



scarf



gloves

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Main Foci: Physics

Question 1: Leaves begin to fall from some trees in....	Start of unit:	End of unit:
spring		
summer		
autumn		
winter		

Question 2: The weather in winter is usually....(tick two)	Start of unit:	End of unit:
sunny		
rainy		
cold		
hot		

Question 3: In which season are you more likely to wear a coat, woolly hat and scarf?	Start of unit:	End of unit:
spring		
summer		
autumn		
winter		

Question 4: It always snows in winter....true or false?	Start of unit:	End of unit:
true		
false		

Question 5: Complete this sentence with the words short and long to make it true.	Start of unit:	End of unit:
<p>In the winter, the days are _____ and the nights are _____.</p> <p>short</p> <p>long</p>		