

Aldbury Primary & Nursery Knowledge Organisers

Science Unit: Seasonal changes

Class 2

Year A Autumn/Spring/Summer term

What should they already know?

From their 'Animals including Humans' and 'Plants' topics in EYFS, the children should be able to:

- identify something as a plant
- recognise plants need water to grow
- name some places plants live
- name some places animals live
- name the young of some animals

Key vocabulary from EYFS:

root, stem, tree, flower, water, plant, animal, chicken/hen, cat/kitten, dog/puppy, duck/duckling etc.



Working Scientifically tasks that link to this unit:

Year 1 – Seasons – Investigating rain

How do I observe, measure and record the amount of rain collected in a week?

Key vocabulary

seasons	There are four seasons to each year: Autumn, Winter, Spring and Summer
Autumn	September, October, November
Spring	March, April, May
Summer	June, July, August
Winter	December, January, February
deciduous	A deciduous tree loses its leaves every year.
evergreen	An evergreen tree keeps its green leaves all year round, even in the Winter.
weather	The weather includes the temperature outside, the wind direction and strength as well as rain, cloud, snow and sun. <i>Examples: rain, hail, snow, ice, frost, sun, showers, wind, cold, warm, hot</i>
reproduce	Produce offspring
life cycles	The series of changes in the life of a living thing.
parts of plants	shoot, fruit, seeds, leaves, flowers




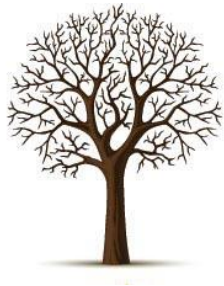
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HFL ARE statements explained





How do I identify what to observe?	This is child-led. The children should notice things about the season (they can be given prompts such as sky, leaves, weather). Because this topic is spread out across the 3 terms, children might notice something in Autumn (e.g. the temperature is X). They would look at all the things they have noticed and choose what to observe in the other seasons.			
How do I observe and describe weather in Autumn/Spring/Summer and Winter?	Spring <ul style="list-style-type: none"> weather starts to get warmer sunnier with some clouds often calm/dry 	Summer <ul style="list-style-type: none"> hotter temperature more chances of sun rainfall varies 	Autumn <ul style="list-style-type: none"> colder temperature mixture of all – sun, rain, clouds, stormier etc. 	Winter <ul style="list-style-type: none"> much colder sometimes cold enough to freeze (frost, ice, snow) wind stronger more rain
What evidence is there of changes throughout the seasons?	Spring The leaves begin to grow on the trees and some trees may blossom (have flowers). Plants begin to grow, and you may see baby animals, like lambs around. The daytime starts to get longer. 	Summer The trees are full of leaves and there are lots of flowers, bees, butterflies and other insects. 	Autumn The leaves start to change colour and fall from the trees. The amount of daylight becomes less. 	Winter Many trees have bare branches as all their leaves have fallen off. The daytimes are the shortest in the year and the night times are the longest. Less wildlife is spotted. 

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How does day length vary in the different seasons?	The weather isn't the only thing that changes with the seasons. The amount of daylight changes as well. We still have 24 hours in a day, but the time the sun sets and rises changes. Children could record if it was light when they got up and if it was light when they went to bed across the seasons.	Spring hours of daylight March: 12 April: 14 May: 15 	Summer hours of daylight Longest days June: 16 July: 16 August: 14 	Autumn hours of daylight September: 13 October: 11 November: 9 	Winter hours of daylight Shortest days December: 8 January: 8 February 10 
How do I identify what to measure about the weather and use charts/tables to record data? (examples)	<ul style="list-style-type: none">• Temperature (using thermometers or data loggers)• Rainfall (using measuring jugs/cylinders and rain gauge)				
How do I use secondary data to describe weather in another setting?	Children are to use books, videos, photos and search engines to find out about weather in another setting (this could be another place in the UK that is different to Aldbury, such as Scotland or Devon or it could be another country altogether).				
	Scotland <ul style="list-style-type: none">• Can be really hot or really cold.• In the mountains, there will be about 100 days of snow.• Similar to England (Summer months are the hottest).		Australia (Brisbane) <ul style="list-style-type: none">• The seasons are opposite to us! December – February is Summer etc. Temperatures are much hotter than here.• Winter – dry and but that cold! Lowest temperature 9 overnight (average).• Spring is similar to Autumn – sunny days with some wind.		

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Migrating birds – birds migrate to survive (the movement from one part of the world/country to another and back again)

Hibernating animals – some animals hibernate during the Winter months in the UK to make sure they can survive for longer periods of time without eating.

- Hedgehogs (October-April) - their bodies can wake them up if it is so cold, they are in danger of freezing. They eat as much as they can in Autumn to build up fat. If it is a warmer winter, you may see some hedgehogs in December.
- Dormice (October/November – April/May) – they can lose half their body weight over Winter, so they eat so much at the end of Summer so that they are twice their normal size.
- Bats (November – April) – they can slow their breathing to 5 beats per minute

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Types of enquiry you could cover in this topic about seasons

	<ul style="list-style-type: none"> In which season does it rain the most?
	<ul style="list-style-type: none"> How does the school pond change over the year? How does the oak tree change over the year?
	<ul style="list-style-type: none"> Do trees with bigger leaves lose their leaves first in autumn?
	<ul style="list-style-type: none"> Are there plants that are in flower in every season? What are they?
	<ul style="list-style-type: none"> How would you group these things based on which season you are most likely to see them in?

Books and writing links

BOOKS

- After the Storm by Nick Butterworth (which season did this happen in?)
- Stick Man by Julia Donaldson
- Tidy by Emily Gravett
- The Cave by Rob Hodgson (hibernation)
- One Year with Kipper by Mick Inkpen
- The Promise by Nicola Davies

RECOUNT

- Write a diary of their experiences and observations at different points of the year.
- Inspired by Stick Man Julia Donaldson.
- Write from the perspective of a woodland animal describing changes through the year.

NON-CHRONOLOGICAL

- Create a fact file for each season.

INSTRUCTIONS

- How to dress for each season.
- Design an outfit for Santa for each season – link to materials

EXPLANATIONS

- How to dress for each season.
- Design an outfit for Santa for each season – link to materials