

Medium Term Plan: Supporting Implementation of LTP/Progression Grid

<p>Subject: Science Year: KS1 year B (Seasonal changes)</p> <p>NC/PoS:</p> <ul style="list-style-type: none">• observe changes across the four seasons• observe and describe weather associated with the seasons and how day length varies. <p>(N.B. this unit to be completed over the year)</p>
<p>Prior Learning (what pupils already know and can do)</p> <p>Know the names of the four seasons and that changes occur within the seasons. Know the difference between day and night.</p>
<p>End Goals (what pupils MUST know and remember)</p> <ul style="list-style-type: none">• Know the sun provides earth with warmth and light• Know in Autumn the leaves of many trees change colour, the temperature grows colder, plants stop making food and animals prepare for the months ahead• Know in Winter, it is usually the coldest time of the year and in some places, it brings freezing temperatures, snow, and ice• Know in Spring dormant plants, begin to grow again, new seedlings sprout out of the ground, plants grow new leaves and hibernating animals awake• Know in summer that it has long, usually sunny days and is the hottest season• Know that the movement of Earth in space gives us day and night• Know it takes the Earth a day to go around on its axis• Know that in the UK (United Kingdom), the day length is longest in the summer and shortest in the winter• Know that the moon goes around the Earth
<p>Key Vocabulary</p> <p>Earth's tilt, compare, seasons, weather patterns, daylight hours, months, changes, preparation, weather symbols, harvest, migration, hibernation, deciduous, wind direction, windsock, bud, rain gauge, growth, dormant, seedlings, heatwave, droughts</p>
<p>Session 1: review prior learning</p> <p>Watch https://www.youtube.com/watch?v=VYpGBtR8Lbs BBC teach the great British year</p> <p>What are the seasons? Which months are in the seasons?</p> <p>Winter – December, January, February; Spring – March, April, May; Summer – June, July, August; Autumn – September, October, November</p> <p>Season is defined by weather patterns and amount of daylight hours</p> <p>Look at the job of a meteorologist https://www.youtube.com/watch?v=qOAhv_U0vh8</p> <p>Vocabulary: seasons, weather patterns, daylight hours, months</p>
<p>Session 2: Recap: what are the seasons? Which order do they happen? What does a meteorologist do?</p> <p>Children learn that in Autumn the leaves of many trees change colour, the temperature grows colder, plants stop making food and animals prepare for the months ahead</p> <p>LO: <u>To observe the changes in Autumn</u></p> <p>https://www.youtube.com/watch?v=QvIh7nrEdeM Autumn</p> <p>Plants may begin to grow inactive. Animals might prepare themselves for the upcoming wintry weather, storing food or travelling to warmer regions. Farmers harvest crops to eat over the colder months</p> <p>Need to go out for at least two sessions during Autumn to look at the change in leaves, plants and number of animals seen</p> <ul style="list-style-type: none">• Introduce the weather symbols• Record weather for 2-3 weeks (keep as will use to compare later in the unit) and use to draw a pictogram and discuss what it shows

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- Introduce bear to go home at weekends (or daily) the children must put it to bed when it gets dark and record the time in his book (use to compare daylight hours later)

Weather symbols

Sunny 	Cloudy 	Heavy rain 
Heavy sleet 	Heavy sleet showers 	Heavy snow 
Light rain 	Overcast 	Rain showers 
Sleet showers 	Snow showers 	Sun with grey clouds 
Heavy rain showers 	Heavy snow shower 	Scattered clouds 
Sun with light clouds 		

Vocabulary: changes, preparation, weather symbols, harvest

Session 3: Recap: what happens in Autumn

Children learn in Winter, it is usually the coldest time of the year and in some places, it brings freezing temperatures, snow, and ice

LO: to observe the changes in Winter

<https://www.youtube.com/watch?v=X0Bv6hchrg0> Winter

In winter, the average is between 2 and 7 degrees Celsius, but temperatures often drop to just below 0 degrees. Deciduous trees have bare branches, animals try to keep themselves warm and lack of flowering plants.

Need to go out for at least two sessions during Winter to look at the change in leaves, plants and number of animals seen

- Look at animal hibernation and migration
- Using windsock and thermometer collect wind direction data and temperature for 2-3 weeks – record and present
- Look at range of clothing people wear at this time of year. Why?
- Discuss the bedtime of the bear what does it tell you about the amount of daylight hours (shortest daylight 8 hours)

Vocabulary: migration, hibernation, deciduous, wind direction, windsock

Session 4: Recap what happens in Autumn and Winter

Children learn that in Spring dormant plants begin to grow again, new seedlings sprout out of the ground, plants grow new leaves and hibernating animals awake

Lo: to observe the changes in Spring

https://www.youtube.com/watch?v=vLAnt9_5Mg Spring

Animals wake or return from warmer climates, often with a newborn. Seeds take root and plants begin to grow. Weather becomes warmer, often wetter and increased rainfall, can cause flooding.

Need to go out for at least two sessions during Spring to look at the change in leaves, plants and number of animals seen

- Introduce the rain gauge and collect data weekly (record and present)
- Ensure that snowdrops and daffodils have been planted as indicator of spring
- Look for birds making nests, appearance of insects
- Look at daylight hours

Vocabulary: bud, rain gauge, growth, dormant, seedlings

Session 5: Recap: changes in Autumn, Winter, and Spring?

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Children learn that summer has long, usually sunny days and is the hottest season
Lo to observe the changes in Summer

https://www.youtube.com/watch?v=w12ZbGBWZ_k Summer

Temperatures may increase to their hottest of the year. If the temperature goes high, heat waves or droughts may cause trouble for people, animals, and plants.

Need to go out for at least two sessions during Summer to look at the change in leaves, plants and number of animals seen

- Record the weather for 2-3 weeks (rainfall, temperature and wind) use weather symbols
- Look at number of insects visible, number of flowering plants
- Discuss daylight hours (longest daylight 16 hours)

N.B. dangerous to look directly at the sun

Vocabulary: heatwave, droughts

Session 6: Recap: Changes in seasons

Children learn that the movement of Earth in space gives us day and night and it takes the Earth a day to go around on its axis. In the UK (United Kingdom), the day length is longest in the summer and shortest in the winter. The moon goes around the Earth.

Lo: to compare the changes through the seasons

Changes due to the tilt of the Earth, when the UK is closest to the sun, it is Summer and when furthest away, it is Winter.

Compare the data collected over the year

Month	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug
Hours of Daylight	13	11	9	8	8	10	12	14	15	16	16	14

Vocabulary: Earth's tilt, compare

Link to career scientist:

Meteorologist https://www.youtube.com/watch?v=qOAhv_U0vh8

Scientists who have helped develop understanding in this field: In 350 BC, Aristotle wrote Meteorology. He is believed to be the founder of meteorology.