Year 1

Seasonal changes - Autumn/Winter

Background information
There are 3 seasonal changes topics where seasonal changes are covered. Some activities are set up and carried on over time. The weather chart can be extended to include additional weather (e.g. snow)as required. The activity to record daylight length where a toy is taken home and it is put to bed as soon as it becomes dark with the time being noted can be changed as long as daylight length is being recorded by the children as part of their own experience. A specific deciduous tree within the school grounds or forest school area can be selected and observed throughout the year. A table/tray can be set up showing items that can be found during the different seasons. Each season begins with a seasonal walk. You may want to provide a 'spotter sheet' *See RSPB 'Spot it' pictures* *https://www.rspb.org.uk/globalassets/downloads/kids--schools/teaching-resources/seasonal-spot-it-sheets.pdf* to focus the children. Things can be collected in eg egg boxes. Items can be photographed and these added to the seasons class book. You could have a seasonal scavenger hunt (as in the Clare Fearon book below) which has items from all 3 seasons which the children 'collect over the course of the year. See online book about Seasonal changes here https://clarefearon.files.wordpress.com/2021/03/seasons2-1.pdf Pine cones can be used to forecast the weather. The first lesson in the spring requires setting up frozen figures, shapes etc in ice prior to the lesson being delivered. This can be done with or without the children. In the UK, the day length is longest in mid-summer (about 16 hrs) and gets shorter each day until mid-winter (about 8 hrs) before getting longer again. The weather also changes with the seasons. In the UK, it is usually colder and rainier in winter and hotter and drier in summer. Changes in the weather may cause other changes, seed and plant growth, the number of minibeasts found outside, leaves on trees and types of clothes worn by people.

Misconceptions Some children think:	• It always snows in winter • It is always sunny in the summer • There are only flowers in the spring and summer • It rains most in the winter

National Curriculum objectives **Working scientifically**	During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content: • asking simple questions and recognising that they can be answered in different ways • observing closely, using simple equipment • performing simple tests • identifying and classifying • using their observations and ideas to suggest answers to questions • gathering and recording data to help in answering questions

Character opportunities	**Possible future STEM Careers linked to unit**
• Working with care to look after nature • Curiosity of the world around us, asking questions • Ambition • Communication with society	• Climatologist • Horticulturist • Meteorologist • Park Ranger

Key vocabulary for unit	
Autumn- When the weather begins to get colder and the leaves fall off the trees from September to November. **Compare** - say what is the same or different between things **Deciduous** - A type of tree that loses its leaves in autumn **Evergreen** - A tree that keeps its leaves all year round **Hibernate**- animals curl up in a safe place and stay there until winter ends. **Melting**- changing from ice into water. **Migrate**- move southwards where it is warmer for winter. **Season**- The parts a year is divided into. **Spring**- When the weather begins to get warmer and plants start to grow from March to May. **Summer**- The warmest part of the year from June to August.	**Temperature**- The measure of how hot something is. **Weather**- what it is like outside. **Weather chart**- a place where we record what the weather is like. **Winter**- the coldest part of the year from December to February. **Observe**- look closely at. **Predict**- to say what they expect to see or happen. **Bar chart**- a way of representing information.

You may want to set up a class book entitled seasonal changes that can be added to across the year

Key vocabulary given in **red**

Learning objective	Working Scientifically	Suggested Activities Ongoing activities (see above) • Weather chart • Daily temperature • daylight hours • Tree changes	Character ideas
• To recognise changes to the natural environment that take place in Autumn	• Ask simple questions • Identify and classify	• Go on a **season**al walk make a collection of objects • Visit the park/forest school and record using photographs and drawing. Collect examples of leaves and changing trees	• Curiosity - Make a question wall about autumn and winter.

• Identify and record evidence of the autumn • Identify some common tree species	• **Observe** closely • Gathering and recording data to help in answering questions	• Using a simple key, identify some of the trees in the school grounds • Adopt a tree/trees (one **deciduous**, one **evergreen**. begin to record changes over the **seasons**	• Ambition - What kind of scientist could you be?
• To **observe** changes across the seasons and their order • To link the months of the year to the relevant **season** • To identify the characteristics of each **season**	• Ask simple questions • Identify and classify • **Observe** closely • Make comparisons and decide how to sort and group	**Autumn leaves** **Compare** leaves on the ground with leaves still on a tree. Children draw different shapes of leaves found. Describe using senses **Weather chart** Begin to record weather using **weather** station. Children are given or devise appropriate symbols. Begin to log as a **bar chart** (either class or individual	• Critical thinking (making comparisons)
• To **observe** and describe how day length varies To **observe** changes over time	• Ask simple questions • **Observe** closely • Gather and record data (ongoing) • **Compare** living things	• **Observe** and **compare** changes in shadow length across the day – draw round child's shadow. Record with photos. Repeat activity intermittently across the year **predicting** what will happen to observe changes (see Robert Louis Stevenson's 'My Shadow ' poem for possible starter activity) • Start to record the time that it becomes dark at night through children putting a toy to bed when it is dark and recording the time. record weekly (perhaps measure on a Friday or Saturday evening at the weekend to avoid too much data and provide a greater change between measurements Plant autumn bulbs in pots and in the garden/public areas	• Patience - waiting for an outcome • Collaboration and Communication with society - Consider planting some spring pots as gift for Old people's home

• To recognise changes to the natural environment that take place in winter • Identify and record evidence of the winter	• observing closely, using simple equipment	**Winter** Go for a walk to observe signs of winter with children predicting what they might see. Continue to record day length, weather and temperature and changes in identified trees	
• **Comparing** living things	• Use observations and ideas to suggest answers to questions	Establish that the weather becomes colder in winter. Consider the effect on **hibernating** or **migrating** animals	Kindness and respect towards animals - set up bird feeders and sites for hedgehog **hibernation**
	• Use simple **observations** and ideas to suggest answers to questions • performing simple tests	• Look for signs of ice in winter. investigate and **predict** how to delay melting or speed it up • Investigate the clothes that people wear in the winter	Kindness/ tolerance - support homeless charity with clothing

Working towards ARE	ARE	Above ARE
• I can name the four seasons. I can observe and start to describe natural objects associated with autumn and winter. I can record the weather using symbols and identify the most frequent weather type from a bar chart with support. I can observe how daylight changes from autumn to winter. I can make predictions. I know what type of clothes I wear in winter.	• Expected: I can name the four seasons. I can observe and describe natural objects associated with autumn and winter using my senses. I can record the weather using symbols. I can identify the most frequent weather type from a bar chart. I can say how daylight changes from autumn to winter. I can make sensible predictions. I know what type of clothes I wear in winter and why.	• • Exceeding: I can name the four seasons and state what they are like. I can confidently observe and describe natural objects associated with autumn and winter using my senses. I can record the weather using symbols. I can identify the most frequent weather type from a bar chart stating why I think this is the case. I can say how daylight changes from autumn to winter explaining why. I can make sensible predictions giving reasons.

I can start to describe what happens to animals in winter.	I can describe what happens to animals in winter.	I know what type of clothes I wear in winter and why linking it to the weather. I can describe what happens to animals in winter explaining why.