

Waterville Primary School Progression of Skills and Vocabulary in Science – Seasonal Change

Year 1	<p>KS1 National Curriculum Pupils should observe and talk about changes in the weather and the seasons. Pupils might work scientifically by: making tables and charts about the weather; and making displays of what happens in the world around them, including day length, as the seasons change. Children need to learn about how a number of things change with the seasons, including the weather, the temperature and the number of daylight hours. They do not need to know why these things change. It would be best to teach these phenomena through exploring the local environment rather than on topics to do with Earth and space.</p> <p>Pupils should be taught:</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 	
Prior Learning	<p>In Early Years:</p> <ul style="list-style-type: none"> • In Early Years, the children have looked at the seasons in relation to their outdoor provision. The children know and can name the four seasons • Developing an understanding of change. • Observe and explain why certain things may occur (e.g leaves falling off trees, weather changes). • Look closely at similarities, differences, patterns and change. • Comments and questions about the place they live or the natural world. 	<p>Vocabulary:</p> <p>Weather (sunny, rainy, windy, snowy etc.), seasons (Winter, Summer, Spring, Autumn), sun, sunrise, sunset, day length, monsoon, thunder storm</p>
Key skills to be taught	Key Ideas	Possible Activities
<p>To ask simple questions and recognise that they can be answered in different ways.</p> <p>To observe closely, using simple equipment.</p> <p>To perform simple tests.</p> <p>To identify and classify.</p> <p>To use their observations and ideas to suggest answers to questions.</p> <p>To gather and record data to help in answering questions.</p>	<p>Describe the weather</p> <p>There are four seasons</p>	<ul style="list-style-type: none"> • Explore types of weather (hot/warm/cold, rainy/dry, cloudy/bright, etc). Create symbols for each type of weather. • Watch DVD / time-lapse / news reports of weather (including extremes) • Keep a daily record of the weather. Watch weather forecasts / match to the actual weather. Take photos. Compare to yearly weather records (inc. extremes). • Create symbols for weather types (link to forecasts) • Role play as weather forecasters • Compare the weather in other countries. Fictional postcard, webcams, weather maps, etc • Develop literacy through descriptive language of weather during seasons <ul style="list-style-type: none"> • Discuss expected weather during each season. Show DVD clips of seasonal weather. Make collage of features of each season. • Keep record of the weather during the year. Observational drawings. Seasonal colours. Count days for each type of weather. Plot as blockcharts/pictograms (long term project). Photo diary. • Measure temperature using a modified thermometer. Notice the difference inside and out. Keep a record over time. • Role play as travel agents. • Research/explore/predict clothing, animal behaviours, etc over seasons. • Observe sun moving across sky from direction of shadow (school feature or stick)(care, sun safety) • Use length of shadow (paint on wooden board) change at the same time each month. Relate to height by modelling with a torch. • Use information about sun rise / sun set times to show changes in day length • Link events to seasons (e.g. conker / leaf hunt, hibernation, new life (nesting), etc) • Do bigger ice cubes melt slower in the sun? Do I need a bigger ice cream to stop it melting? • Webcam bird's nest, hibernating hedgehogs, etc • How many dustpans of leaves does it take to fill up the bin? Use different sized bins. Create block charts for different sized bins • Who can make the biggest snowball? Measure as length or weight. Discuss method. Get others to try. How many snowballs can we stack up before it falls over? • Which trees lose their leaves first in the autumn? Which trees are the first to grow new leaves in the spring? • How many hours of daylight are there? Create blockcharts for the first day of each month <ul style="list-style-type: none"> • Link all information to understand changes over the four seasons. • Percy's shed. Set a weekly question / challenge.
<p>Next steps:</p> <ul style="list-style-type: none"> • Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. (Y3 - Light) • Use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky. (Y5 - Earth and space) • The seasons and the Earth's tilt, day length at different times of year, in different hemispheres (KS3) 		