

Year 1 – Seasonal Changes

NB – This unit of study **cannot** be covered in just one term. Throughout the year the children will need to experience the different seasons and record the changes.

Prior Learning	In Year 1 What they need to know	Later learning: Children do not need to be taught this year.	Key Vocabulary ASE
Children know about similarities and differences in relation to places, objects, materials and living things. They talk about features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur and talk about changes (Early Learning Goal 14).	• Observe changes across the four seasons • Observe and describe weather associated with the seasons and how day length varies	In Year 3 children will be taught: • Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. (Light)	seasons, autumn, winter, spring, summer, evidence, similar, different, group, compare, change, names of the months of the year, temperature, hot, warm, cold, cool, freezing, frosty, wet, dry, sunny, cloudy, showery, stormy, windy, breeze, gale, rainy, sunny, snow, shower, drizzle, puddle, breeze, gale, thunder, lightning, sleet, fog, mist, hat, gloves, mittens, scarf, muffler, ear muffs, boots, coat, umbrella, wellies, kite, windmill, sunglasses, thick, thin, woolly, furry, warm, waterproof <i>tentative language: perhaps, maybe, I was wondering, Does anyone else think.....?</i>
		In Year 5 children will be taught: • Use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky. (Earth and space)	
		In KS3 children will be taught • The seasons and the Earth's tilt, day length at different times of year, in different hemispheres.	

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Common Misconceptions <i>Some children may think:</i> • It always snows in winter • It is always sunny in the summer • There are only flowers in spring and summer • It rains most in the winter.		Possible Famous Scientists to study within unit Dr Steve Lyons - Extreme Weather Holly Green - Meteorologist	

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Working Scientifically - What they need to be able to do

1. Ask simple questions



2. Recognise that questions can be answered in different ways



3. Perform simple tests



4. Observe closely



5. Use simple equipment



6. Talk about what they have found out



Images taken from Primary-Science and PSTT.org

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Identifying and Classifying 	Comparative Testing Fair Testing 	Pattern Seeking 	Research 	Observation over time 
How would you group these things based on which season you are most likely to see them in? Primary Science Education Consultancy - Seasonal change spotter sheet	In which season does it rain the most?	Do trees with bigger leaves lose their leaves first in autumn? At the end of the year, look for patterns in evidence e.g. Does it rain more in spring? Do we have more sunny days in the summer? Which was the coldest month? Does the wind always blow the same way? Primary Science Education Consultancy - Seasonal change spotter sheet	Are there plants that are in flower in every season? What are they?	How does the oak tree change over the year? Primary Science Education Consultancy - Seasonal change spotter sheet Take weather measurements and make observations over time. • Record/Photograph what children are wearing (jumper, coat, hats, scarves, etc.) - displays • Make observations of daylight hours e.g. send a diary and toy bear home with one child each day and ask the child to record their activities, but the bear needs to go to bed when it gets dark and the children must record the time this happens. (This

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				gathers evidence, over time, that day length changes and so do activities.)						
Snap Science link to subject content - <i>Our Changing World Sensing Seasons (6 lessons) *throughout year*</i> Main Enquiry type covered by SS: Observation over time, Pattern seeking, Identifying and Clasifying		Book links: https://www.stem.org.uk/resources/community/collection/13195/year-1-seasonal-changes - see useful page for all year round activities and literacy links Big Cat book links <table><tr><td>Our World Monica Hughes 978-0-00-751277-5 Band 2B Red</td><td>Take a look at climates and landscapes around the globe.</td></tr><tr><td>The Wind Monica Hughes 978-0-00-718577-1 Band 3 Yellow</td><td>This book informs early readers about the wind by showing its effects.</td></tr><tr><td>Around the World James Carter 978-0-00-718658-7 Band 3 Yellow</td><td>Travel through sun, snow and showers with two children.</td></tr></table>			Our World Monica Hughes 978-0-00-751277-5 Band 2B Red	Take a look at climates and landscapes around the globe.	The Wind Monica Hughes 978-0-00-718577-1 Band 3 Yellow	This book informs early readers about the wind by showing its effects.	Around the World James Carter 978-0-00-718658-7 Band 3 Yellow	Travel through sun, snow and showers with two children.
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Pupils could work scientifically by: Primary Science Education Consultancy -Seasonal change spotter sheet * found in teams • Take weather measurements and make observations over time. • Record/Photograph what children are wearing (jumper, coat, hats, scarves, etc.) • Make observations of daylight hours e.g. send a diary and toy bear home with one child each day and ask the child to record their activities, but the bear needs to go to bed when it gets dark and the children must record the time this happens. (This gathers evidence, over time, that day length changes and so do activities.) Pattern seeking • Collect information about the weather regularly throughout the year. • Present this information in tables and charts to compare the weather across the seasons. • Collect information, regularly throughout the year, of features that change with the seasons e.g. plants, animals, humans. • Present this information in different ways to compare the seasons. • Gather data about day length regularly throughout the year and present this to compare the seasons.										

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By the end of the unit the children should know that.....(Sticky Knowledge)

- Weather can change
- There are lots of different types of weather: rain, sun, cloud, wind, snow, etc
- Days are longer and hotter in the summer
- Days are shorter and colder in the winter
- There are four seasons: Spring, Summer, Autumn, Winter



Over the year (name) has explored the different seasons and how they affect plants, animals and himself. (name) can talk about the weather in each season and give similarities and differences. (name) recognises that the weather and seasons affect the behaviour of animals and people. (name) has shown on more than one occasion that he/she understands that days are shorter in winter and longer in summer. (name) can talk about how the plants change through the year, describing how blossom and flowers appear, and plants lose their leaves, at different times. Over a period of time (name) was able to observe the weather and collect data to look for patterns. (name) can describe the weather commenting on whether it is typical for the season e.g. it is summer now, but it is more rainy than I expected.

Secure learning Indicators **PLAN knowledge matrices**

- Can name the four seasons and identify when in the year they occur.
- Can observe and describe weather in different seasons over a year.
- Can observe and describe days as being longer (in time) in the summer and shorter in the winter.
- Can collect information to classify weather and day length in different seasons and present the information in tables or charts to compare the seasons.
- Can collect information on features that change with seasons and present in displays.

Please see www.ase.org.uk for PLAN supporting science assessment resources (found also in TEAMS)

Assessment Indicators for working scientifically in Year 1

Working Towards: With support, children can observe and record what they see at the time.

Secure: Observe, record and describe changes in plants, temperature and the weather across the four seasons.

Mastery: Use records of data from previous sessions to begin to make links between their observations and to offer explanations for seasonal change, e.g. I saw more flowers in spring because it is getting warmer, it is colder in the winter and I need more clothes because we are further from the sun.

Please see primary science consultancy enrichment activities for additional resources in TEAMS, consider use of [Activities - Explorify](#): Big Question, Mission Survive, problem Solvers, Mystery bag for challenging more able pupils.

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Knowledge Expected (guideline pupils do not have to be able to do all of this, it isn't a tick list) Expected - names the four seasons - knows that there are four seasons in a year, every year - describes the changes they observe in the school outdoor environment and/or the local area, throughout the seasons, <i>e.g. the changes in the trees - leaves changing colour, leaves falling off</i> - says which season is likely to be the warmest in Great Britain (and which is likely to be the coldest) - talks about and compares the different weather associated with the four seasons - describes the clothing suitable for a particular season - predicts what the weather might typically be like for a day in any given season, <i>e.g. summer</i> - compares the weather in Great Britain with the current	Knowledge Exceeding (includes material from next stage but does not have to be taught!) Exceeding - names and correctly orders the four seasons - knows that certain plants and animals respond to seasonal change, <i>e.g. some birds migrate, some animals hibernate</i> - describes the effect that the changing seasons has on their own life, <i>e.g. can play outside longer in summer</i> - describes typical weather and temperature in Great Britain associated with each of the seasons - knows that the weather in another country, at the same time of the year, may be very different to the weather in Great Britain - knows that the length of the day (hours of daylight), in another country at the same time of the year, may be very different to the length of a day in Great Britain	
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weather in another country (that has contrasting weather) • knows that in Great Britain there is more hours of daylight in summer than in winter	• describes how the length of the day (hours of daylight) changes from season to season • says which months are associated with each season	
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