

Science — Year 1 — Medium Term Plan Autumn 1: Seasonal changes



Lesson	Learning Objective	Success Criteria	National Curriculum Links	Vocabulary	Resources
One: Wonderful weather	To identify how the weather changes across the four seasons.	 I can name the four seasons. I can name the twelve months of the year. I can describe the expected weather patterns for each season. 	Observe changes across the four seasons. Observe and describe weather associated with the seasons and how the day length varies.	- weather - symbol - season - spring - summer - autumn - winter	- Small tree branches (approximately 50 cm long s one per group of 4) White card strips (approximately 30 s see Main event) A4 card (white, grey, blue, yellow s see Main event) Scissors (one pair per child) String (see Main event) Masking tape (see Main event).
Two: Seasonal activities	To identify events and activities that take place in different seasons.	 I can name the four seasons. I can suggest appropriate clothing to wear in different weather conditions. I can sort activities and events into the correct seasons. 	Observe changes across the four seasons. Observe and describe weather associated with the seasons and how the day length varies.	 autumn Lunar New Year Diwali Easter season spring summer weather winter 	 A doll, puppet or teddy bear (see Attention grabber). Suncream and sunglasses (optional s see Attention grabber). Four sheets of A3 paper (each labelled with a season name and stuck in a different corner of the classroom s see Main event).
Three: How do trees change	To know how trees change across the four seasons.	 I can name the four seasons in order. I can describe the appearance of a tree's leaves in each season. 	 Observe changes across the four seasons. Observe and describe weather associated with the seasons and how the day length varies. 	deciduous tree evergreen tree season temperature weather	 Sticky notes (see Attention grabber). A4 white paper (one each). Brown felt tip pens (one between two s broad tips preferable).

		I can ask simple questions about my observations.	Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.		 Paint trays (one per group of 5 or 6 s. see Main event). Poster paints (light green, light pink, dark green, red, orange, yellow and brown). Table coverings. Link: BBC Teach - British plants, animals and landscapes through the four seasons
Four: Daylight hours	 To recognise that daylight hours change across the four seasons. Working scientifically: To record data in a pictogram. 	 I can recall which seasons have the most and fewest daylight hours. I can gather and record data. I can complete a pictogram. I can use a pictogram to answer questions. 	 Observe changes across the four seasons. Observe and describe weather associated with the seasons and how the day length varies. WS: Gather and record data to help in answering questions. 	 conclusion data pictogram record season sunrise sunset weather 	- Mini whiteboards (one between two) A3 paper (one for teacher).
Five: Observing over time	• Working scientifically: To gather and record data about how seasons change over time.	I understand that a thermometer measures temperature. I can record data about the temperature in different seasons. I can compare data collected over time.	 Observe changes across the four seasons. Observe and describe weather associated with the seasons and how the day length varies. WS: Gather and record data to help in answering questions. 	thermometer temperature predict data record	 Mini whiteboards (one each). Three containers of water at different temperatures (iced water, room temperature water and hot tap water s. see Main event). A selection of different thermometers for teacher use (e.g. digital, traditional glass, forehead strips s see Main event). Link: BBC Weather
Six: Weather reports	To plan and carry out a weather report.	 I can label the capital cities of each country in the UK. I can describe seasonal weather in the UK. 	Observe changes across the four seasons.	seasonsymboltemperatureweather	- Devices for recording video (one between two). - Link: <u>BBC Weather</u>

	 I can suggest ways to prepare for different weather conditions. 	Observe and describe weather associated with the seasons and how the day length varies. -		
Assessment:. Assess topic using end of u				





Science s Year 1 s Medium Term Plan Autumn 2: Everyday materials:

Lesson	Learning Objective	Success Criteria	National Curriculum Links	Vocabulary	Resources

One: Naming materials	To identify everyday materials. Working scientifically: To sort objects into groups based on the materials they are made from.	- I can name everyday materials I can identify the materials different objects are made from Working scientifically: I can sort objects into groups.	- Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock WS: Identify and classify.	- fabric - glass - group - material - metal - object - plastic - rock - wood	- Materials box (see Teacher knowledge for suggested materials) 5 sorting hoops Glue sticks (one between two) Scissors (one between two) A device to take photographs (one for the class).
Two: Material detectives	To recognise the difference between objects and materials.	- I can name objects. - I can identify the material an object is made from. - I can explain the difference between objects and materials.	- Distinguish between an object and the material from which it is made Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock.	- fabric - glass - group - material - metal - object - plastic - rock - wood	- Materials box (see Lesson 1: Naming materials) An outdoor space (see Attention grabber) Pink sticky notes (two each) Green sticky notes (two each) Coloured pencils (two different colours each) A device to take photos (see Adaptive teaching).
Three: Describing the properties of everyday materials.	• To describe the properties of materials.	- I can recall that property refers to how a material can be described I can describe the properties of everyday materials I can recognise that objects are made from materials which suit their purpose.	- Describe the simple physical properties of a variety of everyday materials.	- material - object - property	 A tea towel. Materials box (see Lesson 1: Naming materials). A selection of textured materials for task teo (see Teacher knowledge).
Four: Is it absorbent?	• To group materials based on their properties Compare and group together a variety of everyday materials on the basis of their simple physical properties. (absorbency).	- I can name the properties of materials I can sort materials into groups based on their properties Working scientifically: I can describe and record what I notice.	 Compare and group together a variety of everyday materials on the basis of their simple physical properties. WS: Observe closely, using simple equipment. Perform simple tests. Use their observations and ideas to suggest answers to questions. 	- absorbent - data - group - material - object - opaque - property - transparent - waterproof	- Materials box (see Lesson 1: Naming materials) Equipment for the absorbency experiment (per group of six): - 1 shallow tray; - 1 teaspoon, 5 ml measuring spoon or 5 ml syringe;

Five: Is it waterproof?	Working scientifically: To make observations and record data. To group materials based on their properties (waterproofness). Working scientifically: To plan a test and suggest what might happen.	- I can suggest ways to test the properties of materials I can make a prediction Working scientifically: I can recognise when my prediction does not match the results.	Describe the simple physical properties of a variety of everyday materials. Compare and group together a variety of everyday materials on the basis of their simple physical properties. WS: Observe closely, using simple equipment. Perform simple tests. Use their observations and ideas to suggest answers to questions. Gather and record data to help in answering questions.	- data - fabric - group - material - property - waterproof	- 6 pre-cut material squares (see Teacher knowledge); - access to water (in a bowl or the sink); - tea towels/paper towels for wiping up 6 sorting hoops A device to take photos Selection of clothing (Attention grabber s see Teacher knowledge) Equipment for the practical activity (per group of six): - 6 plastic cups/yoghurt pots; - 6 elastic bands; - 6 pre-cut material squares (see Teacher knowledge); - 1 teaspoon, 5 ml measuring spoon or 5 ml syringe; - access to water (in a bowl or in the sink); - paper towels for spillages Two sorting hoops (see Wrapping up) Pre-prepared labels (waterproof and not waterproof s see
					Wrapping up) A device to take photos
Six: Is it tough?	To group materials based on their properties (toughness). Working scientifically: To answer questions based on results.	 I can describe how materials respond to pulling and tearing. Working scientifically: I can use my observations to answer questions. Working scientifically: I can recognise if a test is fair. 	 Describe the simple physical properties of a variety of everyday materials. Compare and group together a variety of everyday materials on the basis of their simple physical properties. WS: Observe closely, using simple equipment. Perform simple tests. 	material property tough	 Sticky tack. Six materials for testing (see Teacher knowledge). Two sorting hoops (optional). Materials box (see Lesson 1: Naming materials).

	 Identify and classify. Use their observations and ideas to suggest answers to questions. Gather and record data to help in answering questions. 	
Assessment: Assessment quiz and knowledge sheet.		





Science s Year 1 s Medium Term Plan Spring 1: Sensitive bodies

Lesson	Learning Objective	Success Criteria	National Curriculum Links	Vocabulary	Resources
One: Body	 To name parts 	 I can draw and label 	 Describe and compare the structure 	 body 	 Equipment for
parts	of the human body.	human body parts.	of a variety of common animals (fish, amphibians, reptiles, birds	• compare	groups of three:
	Working scientifically		and mammals, including pets).	• group	drawing

	To sort body parts into groups.	 I can identify some differences in animal body parts. WS: I can use sorting rings to group same and different body parts. 	 Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. Pupils should be taught to use the following practical scientific methods, processes and skills: 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 		paper roll (pre-cut to the size of a child); o 3 felt tip pens. • Equipment for musical body parts (see Wrapping up): o a classroom object, such as a bean bag or connecting cube (one
			to suggest answers to questions. Gathering and recording data to help in a		each); o a large space, such as a playground or hall (optional); o a favourite class song (optional). • Link: Birds with arms on VideoLink
Two: The senses	To name the body parts used for each sense. Working scientifically To spot patterns in data.	 I can draw and label the body parts used for each sense. Working scientifically I can measure using cubes. I can use patterns in data to answer a question. 	Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. Pupils should be taught to use the following practical scientific methods, processes and skills: Asking simple questions and recognise that they can be answered in different ways.	 data hearing senses sight smell taste touch 	 Equipment for identifying a mystery object (see Attention grabber): 1 small bag of popcorn; 1 blindfold (e.g. a scarf or a tea towel). Counting cubes (approximately 30 per group of six). Link: Mystery sound effect on Videolink

			 Observing closely, using simple equipment. Using their observations and ideas to suggest answers to questions. Gathering and recording data to help in answering questions. 		
Three: Taste and touch	To identify the body parts used for the sense of taste and touch. Working scientifically To use the senses to make observations.	 I can use my sense of touch to identify an object. WES: I can describe the taste of different foods. I can record describing words in a table. 	Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. Pupils should be taught to use the following practical scientific methods, processes and skills: Observing closely, using simple equipment. Identifying and classifying.	sweet sour bitter salty taste touch sensitive	 A cardboard feely box (see Teacher knowledge). A selection of everyday objects to place in the feely box (see Teacher knowledge.) A pair of rubber gloves. 4 plates of food (one sample of each per child s. see Teacher knowledge). 1 sweet food; 1 sour food; 1 bitter food. Disposable gloves (one for the teacher when handling food). Link: Confuse your taste buds
Four: Sight and smell	To identify the body parts used for the sense of smell and sight To recognise that scientists are always making new discoveries	 I can recall the body part used for smell. I can recall the body parts used for sight. I can understand the importance of research into sight. 	Pupils should be taught to: Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.	 blind direction obstacle research sight smell 	 Equipment for the smelling challenge (per class s see Teacher knowledge): 6 aromatic items; 12 small, opaque containers; 12 container covers; elastic bands (optional);

Five: Hearing	To identify the body part used for the sense of hearing. Working scientifically To investigate how sound changes as you move further away.	 I can name the body part used for hearing. I can identify an object based on the sound it makes. WS: I can use my observations to answer a question. 	 Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. Pupils should be taught to use the following practical scientific methods, processes and skills: Observing closely, using simple equipment. Performing simple tests. Using their observations and ideas to suggest answers to questions. Gathering and recording data to help in answering questions. 	 distance hearing investigation loud pattern quiet volume 	o 1 whiteboard; o sticky tac; o a large outdoor space; o clipboards (one between two). • Equipment for the puddle challenge (per group of three): o 3 rubber floor markers/beanbags; o 1 blindfold (tea towels or scarves). • • Whiteboard and pen (one each). • Equipment for teacher sound demonstration (see Main event): o 1 plastic pot; o some counters; o 1 metal pencil sharpener; o 1 rubber. • 1 percussion instrument (an egg shaker, a guiro, a maraca or claves). • A large outdoor space. • Clipboards (one per child). • Equipment for shaky pots (see Teacher knowledge): o 6 small containers with lids; o 6 items to shake; o 6 labels (numbered one
					6 small containers with lids;6 items to shake;

Six: Senses	 To recognise how 	•	I can list actions people	o Identify, name, draw and label the basic	• action	•	Link: Assessment s
in action	the senses are used		take based on their	parts of the human body and say which	 feeling 		Science M: Sensitive
	in everyday life.		senses.	part of the body is associated with each	• sense		bodies.
	 To recognise the 	•	I can name feelings people	sense.		•	Link: <u>Firefighters</u> on
	importance of the		have based on their				VideoLink
	senses in certain		senses.				
	jobs.	•	I can describe how a				
			firefighter uses their				
			senses.				
Assessment: Assess topic using end of unit quiz and assessment sheet.							





Science — Year 1 — Medium Term Plan Spring 2: Comparing animals

Lesson	Learning	Success Criteria	National Curriculum L	inks	Vocabulary	Resources
	Objective					
One: Animal groups	To identify and group animals.	 I can name animals. I can identify the features of animals. I can group animals based on their similarities and differences. 	Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.	- amphibian - bird - fish - mammal - reptile - group -		5 sorting rings or hoops (see Main event). Scissors (one per pair). Pre-written labels (mammals, birds, reptiles, amphibians and fish). A device for taking photos.

Two: Describing animals	To describe a variety of animals.	- I can recall animal groups and what they have in common I can name animal body parts I can recognise differences in animals.	- Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals Describe and compare the structure of variety of common animals (fish, amphibians, reptiles, birds and mammincluding pets).	bird body a compare fish	Whiteboards and pens (optional s see Adaptive teaching). - Equipment for task two (per group of six): o 6 glue sticks or PVA glue; o 6 scissors; o a selection of craft materials (see Teacher knowledge). - The Resource: Animal picture cards (pre-cut, one card per pair
Three: Comparing animals	To compare the features of animals.	- I can recognise similarities I can sort animals and choose appropriate group labels I can identify differences between animals in the same group.	 Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. Describe and compare the structure of variety of common animals (fish, amphibians, reptiles, birds and mammincluding pets). 	bird compare differences	 Sticky notes (four per pair s two different colours). Scissors (one each). Glue sticks (one each). Coloured pencils (one each). The Resource: Knowledge organiser: Science s Comparing animals (one between two s see Lesson 2: Describing animals). The pre-cut Resource: Teach me, tell me cards (one each
Four: Carnivore, herbivore, or omnivore?	• To identify animals that are carnivores, herbivores and omnivores. Working scientifically • To research using non-fiction texts.	I can recall what carnivores, herbivores and omnivores eat. I can sort animals into groups according to what they eat. Working scientifically I can use a non-fiction text to find out what animals eat.	 Identify and name a variety of common animals including fish, amphibians, repbirds and mammals. Identify and name a variety of common animals that are carnivores, herbivores omnivores. 	ptiles, - diet - group r - herbivore	- Scissors (one each) Glue sticks (one each) The Resource: Super Science skills poster (one A3 colour copy for display
Five: Pets	• To recognise animals that make suitable pets.	I can recall how to care for a pet. Working scientifically	 Identify and name a variety of common animals including fish, amphibians, rep birds and mammals. 		- Dear Zoo' storybook by Rod Campbell.

	Working scientifically To gather and record data to help in answering questions.	I can respond to suggestions about how to collect data. I can record data in a block chart. -	 Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). Working scientifically Pupils should be taught to use the following practical scientific methods, processes and skills: Asking simple questions and recognising that they can be answered in different ways. Gathering and recording data to help in answering questions. 	- tally -	- Connecting cubes in at least five different colours (see Main event) Colouring pencils (five different colours per child) The Resource: Knowledge organiser: Science s Comparing animals (from Lesson 2: Describing animals, optional s see Adaptive teaching) Link: Dear Zoo' by Rod Cambell on VideoLink
Six: Jane Goodall	To describe and compare the structure of animals. Science in action To know about famous scientists throughout history. Access to its wine and of	I can recognise similarities and differences between humans and chimpanzees. Science in action I can recall a famous scientist. I can recall how Jane Goodall gathered data. I can describe Jane Goodall's findings.	- Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets). Working scientifically Pupils should be taught to use the following practical scientific methods, processes and skills: - Gathering and recording data to help in answering questions.	• data • observe • research • scientist	 Equipment for home-made binoculars: otoilet rolls (two each); omasking tape; oglue sticks (one each); ofelt tips pens; ocraft materials for decoration. Sticky labels/name tags (one each). Clipboards (one each). Green fabric and chimpanzee toys or figurines (optional s see Teacher knowledge). Whiteboards and pens (optional s see Adaptive teaching). The Resource: Super Science skills poster (one A3 colour copy for display s see Lesson 1: Animal groups). The Resource: Knowledge organiser: Science s Comparing animals
אוושוווכנשכנה.	rssess whic using end of	unit quiz and assessment sheet.			





Science — Year 1 — Medium Term Plan
Summer 1: Introduction to plants

Identifying a variety of plants, naming their parts and discovering that water is a requirement for growth.

Lesson	Learning Objective	Success Criteria	National Curriculum Links	Vocabulary	Resources
One: What is a plant?	 To identify plants in the school grounds. Working scientifically To plan an investigation. 	I can identify plants and their features. Working scientifically I can ask questions about plants. I can help decide how to set up an investigation. -	 Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. Identify and describe the basic structure of a variety of common flowering plants, including trees. Working scientifically Pupils should be taught to use the following practical scientific methods, processes and skills: 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. 	- data - feature - flower - growth - investigation - leaf - observe - plant - roots - seed - shoot - stem - trunk	 Whiteboards and pens (one each). Scissors (one each). A camera (one between two). Equipment for a bean investigation (one set between two and one for the teacher s. see Main event): 2 transparent plastic cups; 2 paper towels; 2 beans; 2 sticky labels (for labelling the cups); 2 sticky notes (for writing predictions). A cup of water/small watering can for watering the beans. Colouring pencils
Two: Parts of a plant	 To identify parts of a flowering plant. Working scientifically To draw and label a diagram. 	 I can recall the parts of a flowering plant. Working scientifically I can use a magnifying glass to observe closely. I can draw and label a diagram of a flowering plant. 	 Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. Identify and describe the basic structure of a variety of common flowering plants, including trees. Working scientifically Pupils should be taught to use the following practical scientific methods, processes and skills: Asking simple questions and recognising that they can be answered in different ways. 	- diagram - feature - flower - leaf - observe - plant - roots - shoot - stem	 Whiteboards and pens (one each). Flipchart (one for the teacher). Magnifying glasses (one between two). A selection of flowering plants (see Teacher knowledge). A pot showing some bean growth from Lesson 1: What is a plant? Equipment for the independent task (optional): scissors (one each); a camera for recording short drama performances.

			 Observing closely, using simple equipment. Performing simple tests. Identifying and classifying. Using their observations and ideas to suggest answers to questions. 		
Three: Wild and garden plants	To identify and name wild and garden plants. Working scientifically To sort flowers into groups.	I can use pictures to help me identify plants. Working scientifically I can use a magnifying glass to observe closely. I can choose a way to sort flowering plants into groups.	common wild and garden plants, including deciduous and evergreen trees. Working scientifically Pupils should be taught to use the following practical scientific methods, processes and skills: Observing closely, using simple equipment. Identifying and classifying.	feature flower garden plants grouping identification leaf observe plant roots stem wild plants	 Bean bags (enough to hold down the photos from the Resource: Wild and garden flowers). Equipment for a flower hunt: magnifying glasses (one between two); clipboards (one each). Whiteboards and pens (one each). Wild and/or garden flowers for observational drawings with or without roots (optional s for the independent task). The Resource: Super Science skills poster (one A3 colour copy for display s see Lesson 1: What is a plant). Link: What is botanical art?
Four: Deciduous and evergreen trees	To identify and name deciduous and evergreen trees. Working scientifically To measure and compare leaves.	I can name some trees and their parts. Working scientifically I can observe leaves and identify similarities and differences. I can measure leaves using cubes.	 Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. Identify and describe the basic structure of a variety of common flowering plants, including trees. Working scientifically Pupils should be taught to use the following practical scientific methods, processes and skills: 	- deciduous - evergreen - feature - leaf - measure - observe - plant - trunk	 Flipchart (one for the teacher (see Main event). An outside space (see Teacher knowledge). Carrier bags (one between two). Magnifying glasses (one between two). Equipment for the adult-led task: 2 sorting hoops; pre-written labels (deciduous and evergreen); sticky notes (two each); 50 base ten 'ones' blocks;

			 Observing closely, using simple equipment. Identifying and classifying. Using their observations and ideas to suggest answers to questions. 		 a selection of leaves (see Teacher knowledge). Equipment for the independent task (optional): 8s10 large sheets of paper suitable for crayon rubbings, e.g. flipchart paper; green, red, brown and orange crayons; green, red, brown and orange felt tip pens. The Resource: Super Science skills poster (one A3 colour copy for display s see Lesson 1: What is a plant). The Resource: Knowledge organiser: Science s Introduction to plants (a few copies s see Lesson 1: What is a plant?). Link: Woodland Trust A-Z of British Trees.
Five: Sorting seeds	 To recognise that new plants come from seeds and bulbs. Working scientifically To recognise that observations do not always match predictions. 	 I can recall that plants grow seeds or bulbs. Working scientifically I can use similarities and differences to group seeds and bulbs. I can recognise when my observations do not match my predictions. 	 Identify and describe the basic structure of a variety of common flowering plants, including trees. Working scientifically Pupils should be taught to use the following practical scientific methods, processes and skills: Observing closely, using simple equipment. Identifying and classifying. Using their observations and ideas to suggest answers to questions. 	- plant - leaf - seed - growth - observe - prediction	 Whiteboards and pens (one each). Equipment for the adult-led task: 6 magnifying glasses; 6 whiteboards; A tray containing seeds and bulbs (see Teacher knowledge). Pre-prepared equipment from Lesson 1: What is a plant? for the independent task (one between two): 2 cups containing beans; 2 sticky note predictions. Compost for thirty cups (optional). The Resource: Super Science skills poster (one A3 colour copy for display

 Using their observations and ideas to suggest answers to questions. research





Lesson	Learning Objective	Success Criteria	National Curriculum Links	Vocabulary	Resources
One:		-		-	-
Two:		_		_	_
TWO:		-		-	-
Three:		-			
Four:		-		-	-
Ei.sa.				_	
Five:		-		-	-
Six:		-			
Assessment:	•				
1.					