Unit	Lesson name	Lesson No.	Learning objective	Expected Standard (EXS)	Greater depth (GDS)
Seasonal changes	Wonderful weather	1	**Knowledge:** To know that the weather changes across the four seasons.	Naming the four seasons and describing the typical weather that occurs in each season. **You must teach: Autumn, Winter, Spring, Summer**	Naming the four seasons in order and explaining some of the changes which occur in each season, e. g. the weather, the trees, events and activities.
	Seasonal activities	2	**Knowledge**: To identify events and activities that take place in different seasons.	Naming some activities and events that take place in the four seasons and suggesting appropriate clothing to wear in different weather conditions.	Explaining why some activities and events take place in a particular season, e.g. people may go camping in summer because it is hot, and suggesting appropriate clothing to wear in different weather conditions.
	How do trees change?	3	**Knowledge**: To know how trees change across the four seasons.	Naming the four seasons in order and describing the appearance of a tree's leaves in each season. **E.g colour changes/leaves may drop.**	Describing some changes in trees, plants and flowers throughout the four seasons and linking some of these changes to seasonal weather patterns.
	Daylight hours	4	**Knowledge**: To recognise that daylight hours change across the four seasons. **Working scientifically:** To record data in a pictogram.	Completing a pictogram and using it to answer simple questions, understanding that summer has the most daylight hours and winter has the least daylight hours.	Completing a pictogram and using it to find answers to questions, understanding that the sun rises and sets at different times throughout the year and that this affects the number of daylight hours in each of the four seasons.
	Observing over time	5	**Working scientifically:** To gather and record data about the temperature in each of the four seasons.	Understanding that a thermometer can be used to measure temperature; recording data about the temperature across the four seasons, recognising that it is hottest in the summer and coldest in the winter.	Understanding how to use a thermometer to measure temperature in degrees Celsius and making comparisons about the temperature in all four seasons.
	Weather reporters	6	**Knowledge**: To plan and carry out a weather report.	Labelling a map of the UK with capital cities and seasonal weather symbols and describing the weather and how to prepare for different conditions.	Labelling a map of the UK with a range of cities, seasonal weather symbols and temperatures, using key vocabulary to describe the weather and how to prepare for different conditions.
Everyday materials	Naming materials	1	**Knowledge**: To identify everyday materials. **Working scientifically:** To sort objects into groups based on the materials they are made from.	Naming materials; sorting objects into groups based on the materials they are made from. **You must cover: wood, plastic, glass, metal, rock and water.**	Naming less familiar materials; recognising that materials can be described in different ways.
	Material detectives	2	**Knowledge**: To recognise the difference between objects and materials.	Naming everyday objects; identifying the materials objects are made from. **You must cover: wood, plastic, glass, metal, rock and water.**	Recognising when an object is made from more than one material.
	Introduction to properties	3	**Knowledge**: To describe the properties of materials.	Recalling that a property is how a material can be described; using adjectives to describe everyday materials; recognising that objects are made from materials that suit their purpose. **You must cover: hard, soft, stretchy, absorbency, waterproof, not waterproof, opaque & transparent.**	Giving examples of how a material's properties help objects to work.
	Is it absorbent?	4	**Knowledge**: To group materials based on their properties (absorbency). **Working scientifically**: To make observations and record data.	Naming and sorting materials into groups based on their properties; describing what they notice when testing different materials for absorbency.	Predicting outcomes based on prior knowledge and recognising that materials can have varying degrees of absorbency.
	Is it waterproof?	5	**Knowledge**: To group materials based on their properties (waterproofness). **Working scientifically:** To plan a test and suggest what might happen.	Suggesting ways that materials could be tested for waterproofness; making predictions and recognising whether their predictions were accurate.	Using prior knowledge to make predictions; explaining why the properties of materials (fabrics) make them suitable for specific types of clothing.
	Is it tough?	6	**Knowledge**: To group materials based on their properties (toughness). **Working scientifically:** To answer questions based on results.	Describing how materials respond to pulling, twisting, bending and tearing; using these observations to answer questions; beginning to recognise if a test is fair.	Drawing on personal experiences to make predictions; comparing the results to their predictions; recognising where they do not match and using new knowledge to explain why.

Sensitive bodies	Body parts	1	**Knowledge**: To name parts of the human body. **Working scientifically:** To sort body parts into groups.	Drawing and labelling human body parts, naming animal body parts; using a Venn diagram to group body parts. **You must cover: wings, beaks, gills, fur and scales (animals). Head, arm, legs, mouth, ears, eyes, nose, skin (humans)**	Naming less familiar body parts; describing some of the differences between human and animal body parts.
	The senses	2	**Knowledge**: To name the body parts used for each sense. **Working scientifically**: To spot patterns in data.	Drawing and labelling the body parts associated with each sense **(eyes, tongue, nose, ears and skin)** using non-standard units to measure handspan, beginning to recognise patterns in data and using this to answer a question.	Describing some of the objects they can sense with their five senses (e.g. smells, textures and sounds); using data already collected to predict trends.
	Taste and touch	3	**Knowledge**: To identify the body parts used for the sense of taste and touch. **Working scientifically:** To use the senses to make observations.	Identifying objects using their sense of touch, choosing appropriate words to describe the taste of foods; recording these in a table.	Describing and recording the taste and texture of foods in a table; choosing an appropriate method to record their observations.
	Sight and smell	4	**Knowledge**: To identify the body parts used for the sense of smell and sight. **Science in action**: To recognise that scientists are always making new discoveries.	Using their noses (sense of smell) to match a range of different smells to their pictures; recognising that people rely on their sense of sight for a range of everyday activities and why scientists continue to research this area.	Using their noses (sense of smell) and their previous life experience to identify a range of different items; choosing appropriate words to describe different smells.
	Hearing	5	**Knowledge**: To identify the body part used for the sense of hearing. **Working scientifically:** To investigate how sound changes as you move further away.	Naming the body part used for hearing, identifying objects based on the sounds they make; using their observations to answer a question.	Drawing and labelling a simple diagram to show that sound travels; beginning to recognise why sound gets quieter as you move further away.
	Senses in action	6	**Knowledge**: To recognise how the senses are used in everyday life. **Science in action:** To recognise the importance of the senses in certain jobs.	Describing how a firefighter uses their senses at work and giving examples of how the senses are linked to feelings and actions.	Drawing on their own life experiences to suggest scenarios in which the senses can trigger specific feelings and actions.
Comparing animals	Animal groups	1	**Knowledge**: To identify and group animals.	Naming common animals, describing and comparing their physical features; sorting them into groups by recognising similarities and differences. **You must cover: fish, reptiles, birds and mammals**	Describing the characteristics of different animal groups; using a Venn diagram to sort animals; recognising that some animals may fit into more than one group based on specific criteria.
	Describing animals	2	**Knowledge**: To describe a variety of animals.	Identifying the characteristics specific to each animal group, naming a range of animal body parts and describing animals based on their unique features.	Understanding how to order riddle clues from general characteristics to unique features; demonstrating prior knowledge of animal habitats, diets or behaviours.
	Comparing animals	3	**Knowledge**: To compare the features of animals.	Recognising similarities and differences in animal features; using their observations to sort animals and choose appropriate group labels.	Applying prior knowledge when comparing animal features; describing some non-appearance-related characteristics that animal groups share.
	Carnivore, herbivore or omnivore?	4	**Knowledge**: To identify animals that are carnivores, herbivores and omnivores. **Working scientifically:** To research using non-fiction texts.	Recalling the diets of carnivores, herbivores and omnivores, sorting animals based on these groups; using non-fiction texts to find out specific animals' diets.	Recognising that animals have adaptations to help them obtain food; describing
	Pets	5	**Knowledge**: To recognise animals that make suitable pets. **Working scientifically:** To gather and record data to help in answering questions.	Recognising that there are different ways to gather data, recording data in a block graph and using this to answer questions.	Evaluating the efficiency of different data collection methods and using topic-specific vocabulary in their explanations and written work.
	Jane Goodall	6	**Knowledge**: To describe and compare the structure of animals. **Science in action**: To know about famous scientists throughout history.	Recalling what the scientist Jane Goodall was known for and some of her key findings.	Recognising that scientists often have to overcome challenges as part of their work.
Introduction to plants	What is a plant?	1	**Knowledge**: To identify plants in the school grounds. **Working scientifically**: To plan an investigation.	Identifying a range of plants and their features, raising questions about plants; responding to suggestions on how to set up an investigation to answer a question. **You must cover: flowers, trees, fruits and veg.**	Demonstrating background knowledge to ask questions about plant growth; describing how to interpret data collected to answer a question.
	Parts of a plant	2	**Knowledge**: To identify parts of a flowering plant. **Working scientifically:** To draw and label a diagram.	Using a magnifying glass to observe the different parts of flowering plants, drawing and labelling a flowering plant; recalling some of the roles that flowering plant parts have. **You must cover: leaves, stems, roots, seed and petals**	Drawing on prior knowledge and using scientific vocabulary when describing the role of all four plant parts.

	Wild and garden plants	3	**Knowledge**: To identify and name wild and garden plants. **Working scientifically**: To sort flowers into groups.	Using a magnifying glass to observe closely, referring to an identification chart to name flowering plants; sorting them into groups based on specific criteria.	Describing differences between wild and garden plants; sorting images into a Venn diagram and recognising that certain plants may fit into multiple categories simultaneously.
	Deciduous and evergreen trees	4	**Knowledge**: To identify and name deciduous and evergreen trees. **Working scientifically:** To measure and compare leaves.	Naming some trees and their parts, identifying similarities and differences between deciduous and evergreen leaves; using non-standard units to measure leaf lengths. **You must cover: trunk, branches, leaves and roots.**	Measuring leaf lengths in centimetres; carrying out secondary research to identify and name trees.
	Sorting seeds	5	**Knowledge**: To recognise that new plants come from seeds and bulbs. **Working scientifically:** To recognise that observations do not always match predictions.	Recognising similarities and differences in seeds and bulbs and using these observations to group them; recalling that seeds and bulbs come from plants; recognising that predictions do not always match observations.	Using the data collected to look for patterns and investigating potential relationships between seeds and bulbs and the plants they will grow into.
	What plant parts can you eat?	6	**Science in action**: To recognise the importance of a scientist's role. **Working scientifically**: To use observations to find answers to questions.	Recognising that scientific research into plants leads to important discoveries; observing plant parts; describing what they notice and identifying which plant parts can be eaten.	Recognising that some plants have more than one edible part.
Investigating science through stories	Do taller trees have wider trunks?	1	**Knowledge**: To observe changes across the seasons. **Working scientifically**: To spot patterns in data.	Identifying the typical weather associated with each season, recognising patterns in data and using this to answer questions.	Identifying the typical weather associated with each season, recognising patterns in data and using this to answer questions.
	Comparing woodland animals	2	**Knowledge**: To describe and compare the features of animals. **Working scientifically**: To carry out research to find specific information.	Describing animal features, recognising similarities and differences between animals in the same group and carrying out online research with support to find answers to questions.	Independently carrying out online research to find key differences between birds and identifying and grouping the animals featured in the storybook.
	Measuring animal footprints	3	**Knowledge**: To identify differences in animal features. **Working scientifically**: To use a ruler to measure.	Identifying differences in animal footprints, measuring length in centimetres and using data to answer questions.	Explaining how foot adaptations help animals in their environment.
	Building an animal home	4	**Knowledge**: To describe the properties of everyday materials. **Working scientifically:** To plan how to carry out a test.	Building an animal home with natural materials, suggesting how to test if it is waterproof and recognising that tests should be the same for each group.	Evaluating their animal homes by identifying improvements and suggesting further testable questions.
	Are birds carnivores, herbivores or omnivores?	5	**Knowledge**: To identify animals that are carnivores, herbivores and omnivores.	Explaining the difference between carnivores, herbivores and omnivores, grouping birds according to their diets and making simple bird feeders.	Using a range of vocabulary related to plants and animals, drawing on life experiences to answer questions and explaining how the unique body parts of birds help them feed.