



Science Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Nursery	<p>Me and My Community</p> <ul style="list-style-type: none"> Say how they have changed over time. Show care for living things and the environment. Describe how they can look after their environment. <p>Exploring Autumn</p> <ul style="list-style-type: none"> Begin to observe and talk about living things in the local environment. Name a variety of domestic and wild animals. Care for growing seeds and plants and describe observable features of different types of plants and trees. (optional) 	<p>Once upon a time</p> <ul style="list-style-type: none"> Begin to notice how data can be collected and recorded electronically. <p>Sparkle and Shine</p> <ul style="list-style-type: none"> Explore and try a range of foods and suggest where they come from. Explore and sort everyday items, with support, into groups of the same material. (optional) 	<p>Starry Nights</p> <ul style="list-style-type: none"> Begin to observe and talk about living things in the local environment. Begin to talk about and name the body parts of common animals, including pets. Make simple comparisons between objects and materials, such as bigger and smaller, and softer and harder. Name a variety of domestic and wild animals. Begin to notice how data can be collected and recorded electronically. (optional) Talk about some of the things that they have observed using simple scientific vocabulary. (optional) Talk about things they can do on winter evenings and things they can do on summer evenings and begin to notice the difference in day length. (optional) <p>Winter Wonderland</p> <ul style="list-style-type: none"> Name a variety of domestic and wild animals. Talk about some of the things that they have observed using simple scientific vocabulary. Talk about things they can do on winter evenings and things they can do on summer evenings and begin to notice the difference in day length. Talk about the weather as being warm or cold. (optional) 	<p>Dangerous Dinosaurs</p> <ul style="list-style-type: none"> Talk about some of the things that they have observed using simple scientific vocabulary. <p>Puddles and Rainbows</p> <ul style="list-style-type: none"> Explore and talk about materials which are waterproof. Say what the daily weather is like. 	<p>Sunshine and Flowers</p> <ul style="list-style-type: none"> Begin to observe and talk about living things in the local environment. Care for growing seeds and plants and describe observable features of different types of plants and trees. Begin to talk about and draw plants with attention to their parts. (optional) Begin to talk about ways to care for a plant or animal. (optional) Talk about some of the things that they have observed using simple scientific vocabulary. (optional) <p>Shadows and Reflections</p> <ul style="list-style-type: none"> Explore and sort everyday items, with support, into groups of the same material. Play with objects or their own body outside to create shadows. Talk about some of the things that they have observed using simple scientific vocabulary. (optional) 	<p>Big Wide World</p> <ul style="list-style-type: none"> Show care for living things and the environment. Name a variety of domestic and wild animals. (optional) Show care for living things and the environment. (optional) <p>Splash!</p> <ul style="list-style-type: none"> Talk about and play with objects that float and sink and describe different forces that they can feel. Talk about some of the things that they have observed using simple scientific vocabulary. (optional) Begin to talk about ways to care for a plant or animal. Care for growing seeds and plants and describe observable features of different types of plants and trees. Name a variety of domestic and wild animals. (optional)
Reception	<p>Let's Explore (Build it up)</p> <ul style="list-style-type: none"> Begin to notice and talk about the different places around the world, including oceans and seas. Describe how the weather, plants and animals of one place is different to another using simple geographical terms. Discuss how the local environment has changed over time using photographs and first-hand experiences. 	<p>Marvellous Machines (Puppets and Pop Ups)</p> <ul style="list-style-type: none"> Explore and describe electrical and non-electrical light sources. Identify that materials have different properties and explore and sort magnetic and non-magnetic materials through play and exploration. Represent scientific observations by mark making, drawing or creating 	<p>Long Ago (Stories and rhymes)</p> <ul style="list-style-type: none"> Order and sequence a familiar event using words relating to the passage of time, including yesterday, last week, before and then. Use age-appropriate software to create images and record sounds and videos Recognise and discuss how they have changed from when they were babies 	<p>Ready Steady Grow (Signs of spring)</p> <ul style="list-style-type: none"> Begin to identify the origins of some foods. Describe some ways that plants or animals should be cared for in order for them to survive. Describe, predict and sort things that float and sink and talk about the forces that they can feel. Match animals to their young. 	<p>Animal Safari (Creep, Crawl and Wiggle)</p> <ul style="list-style-type: none"> Describe how the weather, plants and animals of one place is different to another using simple geographical terms. Describe some ways that plants or animals should be cared for in order for them to survive. Describe ways to look after the immediate environment. 	<p>On the beach (Move it / Moving on)</p> <ul style="list-style-type: none"> Begin to collect simple geographical data during fieldwork activities Begin to notice and talk about the different places around the world, including oceans and seas Describe how the weather, plants and animals of one place is different to another using simple geographical terms

	<ul style="list-style-type: none"> • Make a shadow bigger or smaller using toys, play equipment and a light source. • Observe and describe living things and their habitats within the local environment. • Take photographs, draw simple picture maps and collect simple data during fieldwork activities. • With support, observe, record and talk about materials and living things. • Compare and group objects and materials according to simple given criteria. • Describe a contrasting environment to their own. • Explore and discuss similarities between aspects of their life and life in the past, using books, stories and pictures. • Explore the natural world around them and give simple descriptions, following observation, of changes. • Compare and group objects and materials according to simple given criteria. • Name and sort everyday items into groups of the same material. • With support, use simple equipment, such as timers, rulers and containers, to measure length, height, capacity and time. 	<p>simple charts and tables. Offer explanations for why things happen, making use of vocabulary, such as, because, then and next.</p> <ul style="list-style-type: none"> • Use age-appropriate software independently. • With support, observe, record and talk about materials and living things. • With support, use simple equipment, such as timers, rulers and containers, to measure length, height, capacity and time. • Make a shadow bigger or smaller using toys, play equipment and a light source. • Use age-appropriate software to create images and record sounds and videos. 	<ul style="list-style-type: none"> • Name and sort everyday items into groups of the same material • Describe ways to look after the immediate environment. • Discuss how the local environment has changed over time using photographs and first-hand experiences. • Represent scientific observations by mark making, drawing or creating simple charts and tables. Offer explanations for why things happen, making use of vocabulary, such as, because, then and next. 	<ul style="list-style-type: none"> • Observe and describe living things and their habitats within the local environment. • Represent scientific observations by mark making, drawing or creating simple charts and tables. Offer explanations for why things happen, making use of vocabulary, such as, because, then and next. • With support, use simple equipment, such as timers, rulers and containers, to measure length, height, capacity and time. • Describe simply how weather changes as the seasons change. • Explore the natural world around them and give simple descriptions, following observation, of changes. • Name and describe natural phenomena, such as the size of shadows, the colours of a rainbow, the speed of clouds moving across the sky and the strength of a wave. • Record observations about the way the local environment changes throughout each season. • With support, observe, record and talk about materials and living things. • Describe how different types of weather affect the local environment. • Name and describe basic features of plants and trees. • Notice and begin to describe patterns of weather in summer and winter. 	<ul style="list-style-type: none"> • Identify common features for different groups of animals, including wild and domestic animals. • Make a shadow bigger or smaller using toys, play equipment and a light source. • Match animals to the foods that they eat. • Match animals to their young • With support, observe, record and talk about materials and living things. • Begin to notice and talk about the different places around the world, including oceans and seas. • Describe a contrasting environment to their own. • Describe how they can look after their environment. • Observe and describe living things and their habitats within the local environment. • Take photographs, draw simple picture maps and collect simple data during fieldwork activities. • Use age-appropriate software independently. • Use age-appropriate software to create images and record sounds and videos. • With support, use simple equipment, such as timers, rulers and containers, to measure length, height, capacity and time. • Explore the natural world around them and give simple descriptions, following observation, of changes. • Identify common features for different groups of animals, including wild and domestic animals. • Observe and describe living things and their habitats within the local environment • Represent scientific observations by mark making, drawing or creating simple charts and tables. Offer explanations for why things happen, making use 	<ul style="list-style-type: none"> • Describe ways to look after the immediate environment • Describe, predict and sort things that float and sink and talk about the forces that they can feel. • Identify common features for different groups of animals, including wild and domestic animals. • Match animals to the foods that they eat. • Observe and describe living things and their habitats within the local environment. • Order and sequence a familiar event using words relating to the passage of time, including yesterday, last week, before and then • Represent scientific observations by mark making, drawing or creating simple charts and tables. Offer explanations for why things happen, making use of vocabulary, such as, because, then and next • With support, observe, record and talk about materials and living things. • Describe a contrasting environment to their own. • Explore the natural world around them and give simple descriptions, following observation, of changes • Name and sort everyday items into groups of the same material. • Take photographs, draw simple picture maps and collect simple data during fieldwork activities. • Use age-appropriate software independently. • Use age-appropriate software to create images and record sounds and videos.
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					<p>of vocabulary, such as, because, then and next.</p> <ul style="list-style-type: none"> With support, observe, record and talk about materials and living things. 	
Year 1	<p>Everyday Materials Materials; Natural materials; Human-made materials; Grouping materials; Properties of materials; Venn diagrams; Comparing and testing materials;</p> <ul style="list-style-type: none"> Talk about what they have done and say, with help, what they think they have found out. With support, use simple equipment to measure and make observations. View progression Identify and name what an object is made from, including wood, plastic, glass, metal, water and rock. Ask simple scientific questions. View progression With support, gather and record simple data in a range of ways (data tables, diagrams, Venn diagrams). View progression Observe objects, materials, living things and changes over time, sorting and grouping them based on their features. Compare and group materials in a variety of ways, such as based on their physical properties; being natural or man-made and being recyclable or non-recyclable. View progression Investigate and describe the simple physical properties of some everyday materials, such as hard or soft; stretchy or stiff; rough or smooth; 	<p>Human Senses Humans; Labelling body parts; Counting body parts; Similarities and differences in humans; Five senses – sight, hearing, touch, smell, taste; Senses and danger; Sensory loss and assistive tools; Sense of touch investigation;</p> <ul style="list-style-type: none"> With support, follow instructions to perform simple tests and begin to talk about what they might do or what might happen. View progression Compare and group materials in a variety of ways, such as based on their physical properties; being natural or man-made and being recyclable or non-recyclable. Observe objects, materials, living things and changes over time, sorting and grouping them based on their features. Talk about what they have done and say, with help, what they think they have found out. View progression <p>Working scientifically Identifying and classifying, Comparative test, Pattern seeking, Research</p>	<p>Seasonal Changes Seasons; Seasonal changes in deciduous and evergreen trees; Seasonal changes in animals; Weather; Seasonal weather; Day length; Investigating the Sun; Measuring wind; Measuring temperature; Measuring precipitation; Weather forecasting;</p> <ul style="list-style-type: none"> Observe changes across the four seasons. Observe the local environment throughout the year and ask and answer questions about living things and seasonal change. Observe objects, materials, living things and changes over time, sorting and grouping them based on their features. View progression Identify, compare, group and sort a variety of common wild and garden plants, including deciduous and evergreen trees, based on observable features. Describe, following observation, how plants and animals change over time. Observe changes across the four seasons. Describe in simple terms how a physical process or human behaviour has affected an area, place or human activity. View progression Observe and describe different types of weather. <p>Working scientifically Observing changes over time, Identifying and classifying, Pattern seeking, Comparative test, Research</p>	<p>Seasonal Changes Seasons; Seasonal changes in deciduous and evergreen trees; Seasonal changes in animals; Weather; Seasonal weather; Day length; Investigating the Sun; Measuring wind; Measuring temperature; Measuring precipitation; Weather forecasting;</p> <ul style="list-style-type: none"> Observe and describe how day length changes across the year. Describe ways to stay safe in some familiar situations. View progression With support, follow instructions to perform simple tests and begin to talk about what they might do or what might happen. With support, use simple equipment to measure and make observations. With support, gather and record simple data in a range of ways (data tables, diagrams, Venn diagrams). Observe and describe different types of weather. Investigate weather using toys, models or simple equipment. Talk about what they have done and say, with help, what they think they have found out. Ask simple scientific questions. <p>Working scientifically Observing changes over time, Identifying and classifying, Pattern seeking, Comparative test, Research</p>	<p>Plant Parts Wild and garden plants; Seasonal changes; Plant parts; Seeds and bulbs; Investigating leaves; Importance of plants;</p> <ul style="list-style-type: none"> Identify, compare, group and sort a variety of common wild and garden plants, including deciduous and evergreen trees, based on observable features. Describe, following observation, how plants and animals change over time Observe the local environment throughout the year and ask and answer questions about living things and seasonal change. Identify, compare, group and sort a variety of common wild and garden plants, including deciduous and evergreen trees, based on observable features. With support, gather and record simple data in a range of ways (data tables, diagrams, Venn diagrams). Label and describe the basic structure of a variety of common plants. Observe objects, materials, living things and changes over time, sorting and grouping 	<p>Animal Parts Animals' body parts; Animal groups – amphibians, birds, fish, invertebrates, mammals, reptiles; Carroll and Venn diagrams; Pets; Carnivores, herbivores and omnivores; Earthworms;</p> <ul style="list-style-type: none"> Identify, compare, group and sort a variety of common animals, including fish, amphibians, reptiles, birds, invertebrates and mammals, based on observable features. Label and describe the basic structures of a variety of common animals, including fish, amphibians, reptiles, birds and mammals. Identify, compare, group and sort a variety of common animals, including fish, amphibians, reptiles, birds, invertebrates and mammals, based on observable features. With support, gather and record simple data in a range of ways (data tables, diagrams, Venn diagrams). Describe how to care for plants and animals, including pets. Group and sort a variety of common animals based on the foods they eat. Observe objects, materials, living things

	<p>opaque or transparent; bendy or rigid and waterproof or not waterproof.</p> <ul style="list-style-type: none"> With support, follow instructions to perform simple tests and begin to talk about what they might do or what might happen. View progression <p>Working scientifically Identifying and classifying, Observing changes over time, Comparative test, Pattern seeking, Research</p>				<p>them based on their features.</p> <ul style="list-style-type: none"> With support, follow instructions to perform simple tests and begin to talk about what they might do or what might happen. With support, use simple equipment to measure and make observations. Ask simple scientific questions. Talk about what they have done and say, with help, what they think they have found out. <p>Working scientifically Identifying and classifying, Observing changes over time, Pattern seeking, Research, Comparative test</p>	<p>and changes over time, sorting and grouping them based on their features.</p> <ul style="list-style-type: none"> Talk about what they have done and say, with help, what they think they have found out. Ask simple scientific questions. With support, follow instructions to perform simple tests and begin to talk about what they might do or what might happen. With support, use simple equipment to measure and make observations. Identify, compare, group and sort a variety of common animals, including fish, amphibians, reptiles, birds, invertebrates and mammals, based on observable features. Group and sort a variety of common animals based on the foods they eat. With support, follow instructions to perform simple tests and begin to talk about what they might do or what might happen. With support, gather and record simple data in a range of ways (data tables, diagrams, Venn diagrams). Talk about what they have done and say, with
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						<p>help, what they think they have found out.</p> <ul style="list-style-type: none"> Ask simple scientific questions. <p>Working scientifically Identifying and classifying, Comparative test, Pattern seeking, Research</p>
	<p>Human Survival Human life cycle; Human needs for health and survival; Healthy lifestyle; Bodily hygiene routines; Handwashing investigation; How germs spread.</p> <ul style="list-style-type: none"> Ask and answer scientific questions about the world around them. Begin to notice patterns and relationships in their data and explain what they have done and found out using simple scientific language. Describe the importance of a healthy lifestyle, including exercise, a balanced diet, good quality sleep and personal hygiene. Describe the stages of human development (baby, toddler, child, teenager, adult and elderly). Describe what humans need to survive. Follow a set of instructions to perform a range of simple tests, making simple predictions for what might happen and suggesting ways to answer their questions. Observe objects, materials, living things and changes over time, sorting and grouping them based on their features and explaining their reasoning. Use a range of methods (tables, charts, diagrams and Venn diagrams) to gather and record simple data with some accuracy. Use simple equipment to measure and make observations. <p>Working scientifically:</p>	<p>Habitats Exploring habitats; Living and non-living things; Identifying plants and animals in a habitat; Animal shelter and food; Food chains; Animal adaptations; Camouflage investigation; Plant adaptations.</p> <ul style="list-style-type: none"> Ask and answer scientific questions about the world around them. Compare and group things that are living, dead or have never been alive. Describe a range of local habitats and habitats beyond their locality (beaches, rainforests, deserts, oceans and mountains) and what all habitats provide for the things that live there. Explain how animals, including humans, need water, food, air and shelter to survive. Follow a set of instructions to perform a range of simple tests, making simple predictions for what might happen and suggesting ways to answer their questions. Identify and name a variety of plants and animals in a range of habitats and microhabitats. Interpret and construct simple food chains to describe how living things depend on each other as a source of food. Observe objects, materials, living things and changes over time, sorting and grouping them based on their features and explaining their reasoning. 	<p>Use of materials Identifying materials and their properties; Shaping materials; Uses of materials; Linking properties to use; Sustainability and recycling.</p> <ul style="list-style-type: none"> Ask and answer scientific questions about the world around them. Begin to notice patterns and relationships in their data and explain what they have done and found out using simple scientific language. Compare the suitability of a range of everyday materials for particular uses, including wood, metal, plastic, glass, brick, rock, paper and cardboard. Describe how some objects and materials can be changed and how these changes can be desirable or undesirable. Follow a set of instructions to perform a range of simple tests, making simple predictions for what might happen and suggesting ways to answer their questions. Observe objects, materials, living things and changes over time, sorting and grouping them based on their features and explaining their reasoning. Use a range of methods (tables, charts, diagrams and Venn diagrams) to gather and record simple data with some accuracy. Use simple equipment to measure and make observations. <p>Working scientifically: Identifying and classifying, Pattern seeking, Comparative tests, Research</p>	<p>Plant Survival Plant parts; Seasonal changes in plants; Investigating germination; Investigating plant growth; Unusual plants.</p> <ul style="list-style-type: none"> Ask and answer scientific questions about the world around them. Begin to notice patterns and relationships in their data and explain what they have done and found out using simple scientific language. Describe a range of local habitats and habitats beyond their locality (beaches, rainforests, deserts, oceans and mountains) and what all habitats provide for the things that live there. Describe how plants need water, light and a suitable temperature to grow and stay healthy. Follow a set of instructions to perform a range of simple tests, making simple predictions for what might happen and suggesting ways to answer their questions. Identify and name a variety of plants and animals in a range of habitats and microhabitats. Observe and describe how seeds and bulbs change over time as they grow into mature plants. Observe objects, materials, living things and changes over time, sorting and grouping them based on their features and explaining their reasoning. 	<p>Animal survival Habitats; Invertebrates and invertebrate groups; Microhabitats; Animal needs for survival; Food chains; Human impact on habitats; Animal offspring; Lifecycles – amphibians, birds, invertebrates, mammals and reptiles; Seasonal changes in animals; Habitat improvements.</p> <ul style="list-style-type: none"> Ask and answer scientific questions about the world around them. Begin to notice patterns and relationships in their data and explain what they have done and found out using simple scientific language. Compare the suitability of a range of everyday materials for particular uses, including wood, metal, plastic, glass, brick, rock, paper and cardboard. Describe a range of local habitats and habitats beyond their locality (beaches, rainforests, deserts, oceans and mountains) and what all habitats provide for the things that live there. Describe the basic life cycles of some familiar animals (egg, caterpillar, pupa, butterfly; egg, chick, chicken; spawn, tadpole, froglet, frog). Describe typical UK seasonal weather patterns. Explain how animals, including humans, need water, food, air and shelter to survive. Follow a set of instructions to perform a range of simple tests, making simple predictions for what might happen and suggesting ways to answer their questions. Identify and name a variety of plants and animals in a range of habitats and microhabitats. Interpret and construct simple food chains to describe how living things depend on each other as a source of food. Observe objects, materials, living things and changes over time, sorting and grouping them based on their features and explaining their reasoning. Use a range of methods (tables, charts, diagrams and Venn diagrams) to gather and record simple data with some accuracy. Use simple equipment to measure and make observations. <p>Working scientifically: Identifying and classifying, Observing changes over time; Pattern seeking; Research</p>	

Identifying and classifying, Observing changes over time, Comparative test, Pattern seeking, Research

- Use a range of methods (tables, charts, diagrams and Venn diagrams) to gather and record simple data with some accuracy.

Working scientifically:
Identifying and classifying, Research, Pattern seeking

- Use a range of methods (tables, charts, diagrams and Venn diagrams) to gather and record simple data with some accuracy.
- Use simple equipment to measure and make observations.

Working scientifically:
Observing changes over time, Identifying and classifying, Pattern seeking, Comparative test, Research

SEATION

ACADEMY