

Templemoor Infant and Nursery School – Science: Curriculum Progression Document



EYFS		Key Stage One (National Curriculum Subject Content)
In Nursery	<ul style="list-style-type: none"> Understand 'why' questions like "Why do you think the caterpillar got so fat?" Make healthy choices about food, drink, activity and basic personal hygiene. Use all senses in hands-on exploration of natural materials. Explore collections of materials with similar and/or different properties. Talk about what they see, using a growing vocabulary. Begin to make sense of their own life-story and family's history. Explore how things work. Plant seeds and care for growing plants with adult support. Understand the key features of the life cycle of a plant and an animal. Begin to understand the need to respect and care for the natural environment and all living things. Talk about the differences between materials and changes they notice. 	<p><u>Plants in KS1</u></p> <ul style="list-style-type: none"> 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. Observe and describe how seeds and bulbs grow into mature plants. Observe and describe the basic needs of plants for survival and the impact of changing these. Observe and describe the main changes as seeds and bulbs grow into mature plants. <p><u>Animals, including humans in KS1</u></p> <ul style="list-style-type: none"> Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. Describe and compare observable features of animals from a range of groups. Identify and name a variety of common animals that are carnivores, herbivores and omnivores. Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds, mammals, including pets). Group animals according to what they eat, describe how animals get their food from other animals and/or plants and use simple food chains to describe these relationships. Talk about how to take care of animals taken from their habitat and understand the need to return them safely to their homes. Identify and name different animals and describe how they are suited to different habitats. Identify, name, draw and label the basic parts of the human body. Say which part of the body is associated with each sense and describe them. Identify and use the vocabulary head, neck, arms, elbows, legs, knees, face, ears, eyes, hair, mouth and teeth. Notice that animals, including humans, have offspring which grow into adults. Find out about and describe the basic needs of animals, including humans, for survival (water, food and air). Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. <p><u>Everyday materials in KS1</u></p> <ul style="list-style-type: none"> 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. Describe the simple physical properties of a variety of everyday materials.
In Reception	<ul style="list-style-type: none"> Learn and use new vocabulary in different contexts. Ask questions to find out more and to check what has been said to them. Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen. Know and talk about the different factors that support their overall health and wellbeing. Explore the natural world around them, describing what they see, hear and feel. Recognise some environments that are different to the one in which they live. Understand the effect of changing seasons on the natural world around them. 	
Early Learning Goal	<ul style="list-style-type: none"> Make comments about what they have heard and ask questions to clarify their understanding. Manage their own basic hygiene and personal needs, including dressing, using the toilet and understanding the importance of healthy food choices. Explore the natural world around them, making observations and drawing pictures of animals and plants. Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been talked about in class. 	

	<ul style="list-style-type: none"> • Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. 	<ul style="list-style-type: none"> • Compare and group together a variety of everyday materials on the basis of their simple physical properties. • Identify, describe and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. • Distinguish objects from materials, describe their properties, identify and group everyday materials and compare their suitability for different uses. • Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. <p><u>Seasonal Changes in Year 1:</u></p> <ul style="list-style-type: none"> • Observe and describe changes across the four seasons. • Observe and describe weather associated with the seasons and how day length varies. • Know that it is not safe to look directly at the sun, even when wearing sunglasses. <p><u>Living things and their habitats in Year 2:</u></p> <ul style="list-style-type: none"> • Explore and compare the differences between things that are living, dead and things that have never been alive • Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other. • Identify and name a variety of plants and animals in their habitats, including micro-habitats. • Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.
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NURSERY

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Learning Project	How many colours are in a rainbow?	Is it shiny?	How does that building stay up?	Are Eggs Alive?	How many pebbles on a beach?	How high can you jump?
Subject Focus	Rainbows	Materials	Buildings	Lifecycle of a chick	UK seaside	Exercise and it's effect on the body.
Key Skills	<ul style="list-style-type: none"> I can name some of the colours of the rainbow. 	<ul style="list-style-type: none"> I can describe different materials using words like 'dull' and 'shiny.' 	<ul style="list-style-type: none"> I can recognise common materials in buildings. 	<ul style="list-style-type: none"> I can talk about the life cycle of a chick in simple terms. 	<ul style="list-style-type: none"> I can name a creature that lives in a rock pool. 	<ul style="list-style-type: none"> I can talk about how exercise keeps us healthy.
Key Knowledge	<ul style="list-style-type: none"> I know some of the colours in the rainbow. 	<ul style="list-style-type: none"> I know that materials can be described using words like 'dull' or 'shiny.' 	<ul style="list-style-type: none"> I know that wood, brick, plastic and glass are used to make buildings. 	<ul style="list-style-type: none"> I know that hens lay eggs. I know that chicks hatch from eggs. 	<ul style="list-style-type: none"> I know the name of a creature found in a rock pool. 	<ul style="list-style-type: none"> I know that exercise helps us to stay healthy.
Key Vocabulary	Rainbow, colour names.	As Autumn 1 plus; Materials, dull, shiny.	As Autumn 2 plus; Wood, brick, plastic, glass.	As Spring 1 plus; Hen, egg, chick.	As Spring 2 plus; Rock pool, creature from rock pool e.g. crab.	As Summer 1 plus; Exercise, body, heart.
Assessing Impact	Observation	Insight data	Observation	Insight data	Observation	Insight data

RECEPTION

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Learning Project	All About Me and my Friends	Autumn	Will you read me a story?	Do cows drink milk?	Are we there yet?	Why do ladybirds have spots?
Subject Focus	Plants	British wildlife	Winter	Farm animals	Materials	Life cycle of a butterfly
Key Skills	<ul style="list-style-type: none"> I can talk about some of the things that plants need to grow. 	<ul style="list-style-type: none"> I can name some common British wildlife . 	<ul style="list-style-type: none"> I can talk about what can happen to water in the Winter. 	<ul style="list-style-type: none"> I can talk about some products that come from farm animals. 	<ul style="list-style-type: none"> I can test different materials to make a boat. 	<ul style="list-style-type: none"> I can talk about the life cycle of a butterfly in simple terms.
Key Knowledge	<ul style="list-style-type: none"> I know that plants need water and sunlight to grow. 	<ul style="list-style-type: none"> I know the names of some common British wildlife. 	<ul style="list-style-type: none"> I know that water can freeze in Winter. 	<ul style="list-style-type: none"> I know that some farm animals produce a product we can use e.g. cows produce milk. 	<ul style="list-style-type: none"> I know that some materials can be used to make a boat. 	<ul style="list-style-type: none"> I know that a caterpillar comes from an egg. I know that a caterpillar turns into a butterfly.
Key Vocabulary	As Summer 2 Nursery plus; plant, water, sunlight.	As Autumn 1 plus; hedgehog, owl, badger.	As Autumn 2 plus; Winter, ice, freeze.	As Spring 1 plus; farm, cow, milk, sheep, wool.	As Spring 2 plus; boat, float, sink.	As Summer 1 plus; egg, caterpillar, chrysalis, butterfly.
Assessing Impact	Observation	Insight data	Observation	Insight data	Observation	Insight data

Year 1						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Learning Project	Our School	My Family History	Our Local Area	The Greatest Explorers	Our Country	Great Inventions-Transport
Subject Focus	Animals including humans	Animals including humans	Seasonal Change	Everyday Materials	Plants	Plants
Key Scientific Skills (Working Scientifically)	<ul style="list-style-type: none"> • I can ask simple questions and recognise that they can be answered in different ways • I can use my observations and ideas to suggest answers to questions • I can communicate my ideas, what I can do and what I can find out in different ways • I can use simple equipment to observe closely • I can gather and record data to help in answering questions • I can use simple scientific language 	<ul style="list-style-type: none"> • I can ask simple questions and recognise that they can be answered in different ways • I can use my observations and ideas to suggest answers to questions • I can communicate my ideas, what I can do and what I can find out in different ways • I can use simple equipment to observe closely • I can gather and record data to help in answering questions • I can use simple scientific language 	<ul style="list-style-type: none"> • I can ask simple questions and recognise that they can be answered in different ways • I can use my observations and ideas to suggest answers to questions • I can communicate my ideas, what I can do and what I can find out in different ways • I can use simple equipment to observe closely • I can gather and record data to help in answering questions • I can use simple scientific language 	<ul style="list-style-type: none"> • I can ask simple questions and recognise that they can be answered in different ways • I can use my observations and ideas to suggest answers to questions • I can communicate my ideas, what I can do and what I can find out in different ways • I can use simple equipment to observe closely • I can gather and record data to help in answering questions • I can use simple scientific language 	<ul style="list-style-type: none"> • I can ask simple questions and recognise that they can be answered in different ways • I can use my observations and ideas to suggest answers to questions • I can communicate my ideas, what I can do and what I can find out in different ways • I can use simple equipment to observe closely • I can gather and record data to help in answering questions • I can use simple scientific language 	<ul style="list-style-type: none"> • I can ask simple questions and recognise that they can be answered in different ways • I can use my observations and ideas to suggest answers to questions • I can communicate my ideas, what I can do and what I can find out in different ways • I can use simple equipment to observe closely • I can gather and record data to help in answering questions • I can use simple scientific language

<p>Key Knowledge</p>	<ul style="list-style-type: none"> • I know how 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. • I know how to use the vocabulary and identify: head, neck, arms, elbows, legs, knees, face, ears, eyes, hair, mouth and teeth • I know how to take care of animals taken from their habitat and understand the need to return them safely to their homes. 	<ul style="list-style-type: none"> • I know how to identify and name a variety of common animals including fish, amphibians, reptiles, mammals and birds. • I know how to describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) • I know how to identify and name a variety of common animals that are carnivores, herbivores and omnivores. • I know how to group animals according to what they eat. • I know how to describe and compare observable features of animals from a range of groups. 	<ul style="list-style-type: none"> • I know how to observe and describe changes across the four seasons. • I know how to observe and describe weather associated with the seasons and how day length varies. • I know that it is not safe to look directly at the sun, even when wearing sunglasses. 	<ul style="list-style-type: none"> • I know how to distinguish between an object and the material from which it is made. • I know how to identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. • I know how to describe the simple physical properties of a variety of everyday materials. • I know how to compare and group together a variety of everyday materials on the basis of their simple physical properties. 	<ul style="list-style-type: none"> • I know how to identify and describe the basic structure of a variety of common flowering plants, including trees. 	<ul style="list-style-type: none"> • I know how to identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.
<p>Key Vocabulary</p>	<p>Sense, touch, taste, smell, see, hear, skin, eyes, nose, tongue, hearing, eyesight, ear, feel.</p>	<p>Head, body, eyes, ears, mouth, teeth, tail, leg, wing, claw, fin, scales, feathers, fur, beak, paw, hoof, arm.</p>	<p>Weather, climate, windy, sunny, rainy, snowy, season, winter, spring, summer, autumn, temperature, tornado, lightning, thunder, rainfall, sunrise, sunset, horizon, day length, day light, night-time, thermometer, rain gauge.</p>	<p>Object, material, wood, plastic, glass, metal, rock, brick, paper, fabric, elastic, foil, rubber, wool, hard, soft, stretchy, stiff, bendy, waterproof, absorbent, brittle, shiny, dull, transparent, opaque.</p>	<p>Leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud, bulb, germination.</p>	<p>Names of common wild and garden plants. Deciduous, evergreen.</p>

Assessing Impact	Assessment will take place against 'I can statements' at the end of each unit as well as ongoing observations.	Assessment will take place against 'I can statements' at the end of each unit as well as ongoing observations.	Assessment will take place against 'I can statements' at the end of each unit as well as ongoing observations.	Assessment will take place against 'I can statements' at the end of each unit as well as ongoing observations.	Assessment will take place against 'I can statements' at the end of each unit as well as ongoing observations.	Assessment will take place against 'I can statements' at the end of each unit as well as ongoing observations. June tracking data will also be used.
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Year 2						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Learning Project	Magical Mapping	Bonfire Night/The Great Fire of London	Our Wonderful World	Amazing Activists	Sensational Safari	Holidays
Subject Focus	Animals including humans	Animals including humans	Uses of everyday materials	Uses of everyday materials	Plants/Living things and their habitats	Plants/Living things and their habitats
Key scientific Skills (Working Scientifically)	<ul style="list-style-type: none"> I can ask simple questions and recognise that they can be answered in different ways including use of scientific language from the national curriculum. I can communicate my ideas, what I can do and what I can find out in different ways. I can use simple equipment to observe closely including changes over time. I can ask my own questions about what I notice. I can gather and record data to help in answering questions including from secondary sources of information 	<ul style="list-style-type: none"> I can ask simple questions and recognise that they can be answered in different ways including use of scientific language from the national curriculum. I can communicate my ideas, what I can do and what I can find out in different ways. I can use simple equipment to observe closely including changes over time. I can ask my own questions about what I notice. I can gather and record data to help in answering questions including from secondary sources of information 	<ul style="list-style-type: none"> I can ask simple questions and recognise that they can be answered in different ways including use of scientific language from the national curriculum. I can communicate my ideas, what I can do and what I can find out in different ways. I can use simple equipment to observe closely including changes over time. I can ask my own questions about what I notice. I can gather and record data to help in answering questions including from secondary sources of information 	<ul style="list-style-type: none"> I can ask simple questions and recognise that they can be answered in different ways including use of scientific language from the national curriculum. I can communicate my ideas, what I can do and what I can find out in different ways. I can use simple equipment to observe closely including changes over time. I can ask my own questions about what I notice. I can gather and record data to help in answering questions including from secondary sources of information 	<ul style="list-style-type: none"> I can ask simple questions and recognise that they can be answered in different ways including use of scientific language from the national curriculum. I can communicate my ideas, what I can do and what I can find out in different ways. I can use simple equipment to observe closely including changes over time. I can ask my own questions about what I notice. I can gather and record data to help in answering questions including from secondary sources of information 	<ul style="list-style-type: none"> I can ask simple questions and recognise that they can be answered in different ways including use of scientific language from the national curriculum. I can communicate my ideas, what I can do and what I can find out in different ways. I can use simple equipment to observe closely including changes over time. I can ask my own questions about what I notice. I can gather and record data to help in answering questions including from secondary sources of information
Key Knowledge	<ul style="list-style-type: none"> I know how to describe the basic needs of animals for survival and the main changes as offspring from young animals, including humans, grow into adults. I know how to describe the basic needs of animals, 	<ul style="list-style-type: none"> I know how to describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. 	<ul style="list-style-type: none"> I know how to identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. 	<ul style="list-style-type: none"> I know how to describe how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. 	<ul style="list-style-type: none"> I know how to observe and describe how seeds and bulbs grow into mature plants. I know how to find out and describe how plants need water, light and a suitable temperature 	<ul style="list-style-type: none"> I know how to name different plants and animals and describe how they are suited to different habitats. I know different habitats provide for the basic needs of different kinds of animals and plants and how they

	including humans, for survival (water, food and air)				<p>to grow and stay healthy.</p> <ul style="list-style-type: none"> • I know how to identify whether things are alive, dead or have never lived. • I know how to explore and compare the differences between things that are living, dead, and things that have never been alive. • I know how to identify and name a variety of plants and animals in their habitats, including micro-habitats. 	<p>depend on each other.</p> <ul style="list-style-type: none"> • I know how to describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.
Key Vocabulary	Offspring, reproduction, adolescent, hygiene, germs, protein, carbohydrate, fat, nutrient, life cycle, life stage	Offspring, reproduction, adolescent, hygiene, germs, protein, carbohydrate, fat, nutrient, life cycle, life stage. Diet, exercise, hygiene.	Object, material, wood, plastic, glass, metal, rock, brick, paper, fabric, elastic, foil, rubber, wool, hard, soft, stretchy, stiff, bendy.	Waterproof, absorbent, brittle, shiny, dull, transparent, opaque, reflective, non-reflective, translucent, plasticity.	Leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud, bulb, germination, shade, nutrient.	Living, dead, never been alive, habitat, food chain, grassland, forest, pond, woodland, desert, ocean, polar, microhabitat, excretion, reproduction, respiration, mountains, river
Assessing Impact	Assessment will take place against 'I can statements' at the end of each unit as well as ongoing observations.	Assessment will take place against 'I can statements' at the end of each unit as well as ongoing observations.	Assessment will take place against 'I can statements' at the end of each unit as well as ongoing observations.	Assessment will take place against 'I can statements' at the end of each unit as well as ongoing observations.	Assessment will take place against 'I can statements' at the end of each unit as well as ongoing observations.	Assessment will take place against 'I can statements' at the end of each unit as well as ongoing observations. June tracking data will also be used.