
















Science MTP - Plants - Year 1

National Curriculum Objectives		Sticky Knowledge		Key Scientists	
<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. 		<ul style="list-style-type: none"> Plants grow from seeds/bulbs. Plants need light and water to grow and survive. We can eat lots of plants. Garden plants are plants people choose to grow in their gardens. Weeds are wild plants that grow in places people don't want them. A wild plant grows where the seed lands. It doesn't need to be planted or cared for. 		Beatrix Potter <i>(Botanist & Natural Scientist)</i> John Ray <i>(Naturalist)</i>	
		Vocabulary			
		blossom, branch, bud, bulb, deciduous, evergreen, flower, flowering, fruit, garden, leaf, leaves, petals, roots, seed, stem, trunk, vegetables, wild			
Prior Learning		Future Learning		Key Questions	
In EYFS Children should: <ul style="list-style-type: none"> Make observations of plants. Know some names of plants, trees and flowers and begin to describe them. Show some care for the world around them. 		In Year 2 Children will: <ul style="list-style-type: none"> Observe and describe how seeds and bulbs grow into mature plants. Find out and describe how plants need water, light and warmth to grow and stay healthy. 		<ul style="list-style-type: none"> How do plants grow? What do plants need to grow? Do all plants need water? Are all plants green? Why do seeds look different? Can plants grow as big in the shade? What is the biggest/smallest/smelliest tree/flower/plant on the planet? 	
				BIG Question (assessment opportunity)	
Which type of compost grows the tallest sunflower? Which variety of potato grows best in our outdoor area?	How can we sort the leaves that we collected on our walk? How many plants can we identify in our school grounds?	How does a daffodil bulb change over the year? How does my sunflower change each week?	Do trees with bigger leaves lose their leaves first in autumn? Is there a pattern in where we find moss growing in the school grounds?	What are the most common British plants and where can we find them? How did Beatrix Potter help our understanding of mushrooms and toadstools?	How many types of plants are there? @MrsF_primary

Science MTP - Animals, including humans - Year 1






National Curriculum Objectives		Sticky Knowledge		Key Scientists	
<ul style="list-style-type: none"> Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. 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 and mammals, including pets) Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. 		<ul style="list-style-type: none"> There are many different animals with different characteristics. Animals have senses to help individuals survive; when animals sense things they are able to respond. Animals need food to survive but different animals have different diets. Animals need a variety of food to help them grow, repair their bodies, be active and stay healthy. 		Jane Goodall <i>(Primatologist)</i> Joan Beauchamp Procter <i>(Zoologist)</i>	
		Vocabulary			
		arm, ears, elbow, eyes, face, fingers, foot, hair, hand, head, hearing, human body, knee, leg, mouth, neck, nose, sense, shoulder, sight, smell, sound, taste, teeth, texture, thumb, toes, touch, amphibians, animals, birds, carnivores, fish, habitat, herbivore, mammals, omnivore, pets, reptiles			
Prior Learning		Future Learning		Key Questions	
In Early Years children should: <ul style="list-style-type: none"> Be able to identify different parts of their body. Have some understanding of healthy food and the need for variety in their diets. Be able to show care and concern for living things. Know the effects exercise has on their bodies. Have some understanding of growth and change. Can talk about things they have observed including animals. 		In Year 2 children will: <ul style="list-style-type: none"> Know that animals, including humans, have offspring which grow into adults. Know the basic stages in a life cycle for animals, including humans. Find out 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. 		<ul style="list-style-type: none"> What do animals eat? Do all animals eat the same food? Which of our senses is the most accurate at identifying food? Do all animals hunt? Why are animals different colours and patterns? 	
 Is our sense of smell better when we can't see?	 How can we organise all the zoo animals? What are the names for all the parts of our bodies?	 How does my height change over the year? How many animals can be found under a rock at different times of the year?	 Do you get better at smelling as you get older? Do bigger animals have bigger poo?	 Do all animals have the same senses as humans? How do we look after animals?	BIG Question (assessment opportunity) What are animals like? 

Science MTP - Everyday Materials - Year 1

National Curriculum Objectives		Sticky Knowledge		Key Scientists	
<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, metal, plastic, glass, water and rock. 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 properties. 		<ul style="list-style-type: none"> There are many different materials that have different describable and measurable properties. Materials that have similar properties are grouped into metals, rocks, fabrics, wood, plastic, ceramics and glass. The properties of a material determine whether they are suitable for a purpose. 		Charles Mackintosh <i>(Chemist & Inventor)</i> Ole Kirk Christiansen <i>(Inventor)</i>	
		Vocabulary			
		absorbent, bendy, dull, glass, hard, material, metal, object, opaque, plastic, properties, rock, rough, shiny, smooth, soft, stiff, stretchy, transparent, water, waterproof, wood			
Prior Learning		Future Learning		Key Questions	
In Early Years children should: <ul style="list-style-type: none"> Be able to ask questions about the place they live. Talk about why things happen and how things work. Discuss the things they have observed such as natural and found objects. Manipulate materials to achieve a planned effect. 		In Year 2 Children will: <ul style="list-style-type: none"> Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. Find out how shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. 		It is recommended that materials be taught two times in Y1. Give a theme for each topic e.g. buildings, exploration, toys, the seaside. Plan to investigate a couple of classes of materials and properties in each topic so children get a depth of experience each topic. <ul style="list-style-type: none"> When is a wooden spoon more suitable than a plastic spoon? Are all metals the same? Is glass only used for windows? Is all glass transparent? Which materials can be recycled? 	
					BIG Question (assessment opportunity)
Which materials are the most flexible? Which materials are the most absorbent?	We need to choose a material to make an umbrella. Which materials are waterproof?	What happens to materials over time if we bury them in the ground? What happens to ice over time?	Is there a pattern in the types of materials that are used to make objects in a school?	How is glass made? What happens to our recycling?	What are the things I have used in my model made from? Why are they the best choice for the job?

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Science MTP - Seasonal Changes - Year 1

National Curriculum Objectives		Sticky Knowledge		Key Scientists	
<ul style="list-style-type: none"> ● Observe changes across the four seasons. ● Observe and describe weather associated with the seasons and how day length varies. 		<ul style="list-style-type: none"> ● Weather can change. ● The weather includes the temperature outside, wind direction and strength, as well as rain, cloud, snow and sun. ● Daylight is when it is light outside. The amount of daylight changes with the seasons. ● There are four seasons: spring, summer, autumn, winter 		George James Symons <i>(Meteorologist)</i> Anders Celsius <i>(Astronomer, Physicist & Mathematician)</i>	
		Vocabulary			
		autumn, changes, day length, overcast, rain, seasons, snow, spring, summer, Sun, sunny, temperature, weather, wind, winter			
Prior Learning		Future Learning		Key Questions	
In Early Years children should: <ul style="list-style-type: none"> ● Developing an understanding of change. ● Observe and explain why certain things may occur (e.g leaves falling off trees, weather changes). ● Look closely at similarities, differences, patterns and change. ● Make comments and questions about the place they live or the wider natural world. 		In Year 3 Children will: <ul style="list-style-type: none"> ● Recognise that they need light in order to see things and that dark is the absence of light. ● Notice that light is reflected from surfaces. ● Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. ● Recognise that shadows are formed when the light from a light source is blocked by a solid object. ● Find patterns in the way that the sizes of shadows change. 		<ul style="list-style-type: none"> ● How long does it take for the ground to dry after it has been raining? ● Do countries with higher temperatures have less rain? ● How does rainfall and temperature change over time in our school grounds? ● What do you notice about different leaves? ● Why do you think leaves turn brown in autumn? What colours can we find outside? Does this change across the seasons? ● What effect does rain have on the environment? ● What would happen if there was too much or not enough rain? 	
 In which month does it rain the most?	 How would you identify and record the weather over a week or month?	 How does a tree change over a year?	 Does the wind always blow the same way?	 Which countries in the world have different types of weather to us?	BIG Question (assessment opportunity) What is it like in spring, summer, autumn and winter? @MrsF_primary