

WOODGRANGE INFANT SCHOOL KS1 Science Curriculum Knowledge and skills progression

Our science curriculum aims to develop a curiosity and deepening understanding the world we live in. Through our playful approach children have extended opportunities to experiment and explore in the natural world as well as with forces and materials- they play scientifically. This is complemented with structured direct teaching to ensure children have the knowledge with which to be creative.

EYFS

The Natural World

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 read in class
 Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.

Me now – my height etc <u>Curiosity box?</u> Autumn watch - autumnal objects in class to spark conversation (conkers, crunchy leaves, pumpkin, scarf etc)	Autumn discussions and how our Reception trees change over time.	Winter discussions and how our Reception trees change over time. Make fat balls to feed birds in depth of winter <u>Curiosity box?</u> Winter watch - sticks, winter hat, snowflake picture, pinecones,	Spring discussions and how our Reception trees change over time. Looking after eggs to chicks How I've changed since beginning school; what I've learnt to do. Draw pictures of animals found in a farm. Look at animals and their offspring. What are they called? <u>Curiosity box?</u> Spring watch - daffodils, chickens, wellies,	Look at changing season spring into summer Planting seeds (salad leaves/ grass seeds)	Summer weather Sun safety
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YEAR 1	Working scientifically	Animals incl humans	Everyday materials	plants	Seasonal change
TERM 1 A Mouse called Julian	Observe the leaves falling from the trees	Recognise a variety of woodland animals . Identify that a fox is an omnivore.			Can observe and describe the seasonal change from summer to Autumn. Discuss how the day lengths are shorter now.
ENDPOINT	-Children can discuss the changes seen in local trees. -Children have an understanding of British woodland animals and what they might eat. Key vocabulary - omnivore				
TERM 2	Can predict and observe	Understand the meaning of			

The last wolf	using magnifying glasses changes made using a simple experiment to see the colours found in a leaf.	herbivore, carnivore and herbivore (linked to prior learning about fox) . Be able to sort animals.			
ENDPOINT	<ul style="list-style-type: none"> - Children can name, sort, classify and describe woodland animals and show an understanding of how they behave. - Children can name, sort, classify and describe common British trees, showing an understanding change in diff seasons. Key vocabulary - herbivore, omnivore, carnivore, seasons, summer, winter, spring, autumn				
TERM 3 Traction man	Test materials suitability based on their properties.		Name and identify a variety of materials suitable. Investigate materials for stretchiness strength for purpose (cape).		
ENDPOINT	-Children can identify properties of materials and use knowledge to choose a material based on these properties. Key vocabulary - wood, plastic, water, glass, rock, metal, hard/soft, stretchy/stiff, shiny/dull, waterproof/not waterproof/				
TERM 4 Prince Cinders	Science test - create a potion Predict what will happen Observe results	identify, name, draw and label the basic parts of the human body Sing songs associated with body parts to reinforce. (head, shoulders, knees and toes, hokey pokey,)			
ENDPOINT	Children are able to draw and label body and discuss how they linked to each sense. Key vocabulary				
TERM 5 Pattan's pumpkin	Observe growth of a seed. Draw a pumpkin plant and label			identify and describe the basic structure of growing pumpkin plant Observe and record changes from spring to summer linked to evergreen and deciduous trees and bulbs appearing. ee	Can observe and describe the seasonal change from spring to Summer. Discuss how the day lengths are longer now
ENDPOINT					
TERM 6 Leila & the secret of the rain	make table recording the weather across a week		compare/ sort/ classify and describe common everyday materials based on design for _____		Observe weather daily. Discuss with class Discuss
ENDPOINT	Class record of weather Key vocabulary - sunny, rainy, stormy,				

YEAR 2	Working scientifically	Animals incl humans	Uses of everyday materials	plants	Living things and their habitats
TERM 1 LEAF	Perform Ice test - children will predict the best method to melt ice and retrieve a toy. Children will observe their findings and record ideas. Discuss fair findings.	Identify different types of animals; fish, mammals, amphibians and reptiles. Classify a polar bear based on these varieties.		Plant bulbs to watch grow in the spring.	Where is a polar bear's habitat? How is a bear suited to a cold habitat. Discussion about a bear hunting for fish and seals for food.
ENDPOINT	<p>Talk about a fair test and predict and record ideas. Children can discuss and classify different types of animals Children are developing their understanding of habitats and how animals are suited to their environments</p>				
TERM 2 Moth	Record the life cycle of a moth. Record facts about a moth's diet, life cycle and habitat.	Introduce food chains . Create a food chain as a class. Classify animals from the story along with other animals introducing camouflage and adapting			Build on children's previous understanding of habitats. Identify the right habitat for a moth. Introducing micro habitats. Show a picture of our woods/gardens. What can you see that is alive, dead, has never lived. Follow the life cycle of a moth.
ENDPOINT	<p>Children can discuss food chains Children will begin to understand micro habitats Children will be able to discuss things that are living and dead Key vocab - micro habitats,</p>				
TERM 3 & 4 Lights on Cotton Rock	What do plants/ animals need to survive? Test Moon Buggies on ramps with different surfaces. Predict distances, test and measure. Slowing down a falling object (parachute)	Describe and compare the structure of variety of animals (fish, amphibians, reptiles, birds and mammals)	Test -Materials suitable for making a moon buggy (strong) Investigate how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.	Observe a plant bulb	Differences between things that are living, dead, and things that have never been alive.

ENDPOINT	Children can discuss suitability of materials				
TERM 5 & 6 The Secret of Black Rock	Test /Predict 'why do boats float?' 'Will it degrade?' Evaluate both experiments.	Impact of humans on the environment			Classify Food chains- sea based creatures Identify underwater habitats Importance of oceans to life on earth
ENDPOINT	Children can discuss impact of humans Children can talk about a 'fair test' Children will know some creatures found in a underwater habitat Key vocab - habitat,				