

Science

EYFS - Areas of Learning

<u>Understanding The World - The Natural World</u>

Children at the expected level of development will: - Explore the natural world around them, making observations and drawing pictures of animals and plants; 15 - 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.

including the seasons and changing states of matter.				
National Curriculum – Key Stage 1 Subject Content				
<u>Plants</u>	 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 find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. 			
Animals, including Humans	 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. 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 			
Everyday Materials	 hygiene. 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 compare and group together a variety of everyday materials on the basis of their simple physical properties. identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses 			



Seasonal Changes Seasonal C								we make the difference.
Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies		 find out how the shapes of solid objects made from some materials can be changed by squashing, 						
Observe and describe weather associated with the seasons and how day length varies Living things & their habitats								
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 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. Autumn 1	Seasonal Changes	obse	rve chan	nges across the four	seasons			
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 describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name a variety of plants and animals in their hobitats, including microhabitats 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. Pre-School		obse	rve and	describe weather a	ssociated with the	seasons and how	day length varies	
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 microhabitats • 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. **Pre-School*** **Pre-School** **Pre-School	Living things & their							
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 microhabitats 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. YFS Corriculum Spring 2 Summer 1 Summer 2		-				.gg,	3.2 3.2, 2	
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 microhabitats 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. Pre-School				nost livina thinas live	in habitats to which	ch they are suited	and describe how	v different habitats
identify and name a variety of plants and animals in their habitats, including microhabitats 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. Second								
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. Summer 1								
Chain, and identify and name different sources of food. Spring 1			•				•	
Reception Traditional Tales Bits & Bobs! Layered Learning Opportunities, Experiences & Vocabulary covered in EYFS to prepare children read the story: Yow Babies' - identify and name a variety of common wild and garden plants, including deciduous and evergreen Autumn 2 Spring 1 Spring 2 Summer 1 Summer 2 Splash! People Who Help Us. A Bugs Life Help Us. People Who Help Us. A Long Time Ago Poportunities, Experiences & Vocabulary covered in EYFS to prepare children for learning in KS1 Reception Children read the story: Yow Babies' - They explore trees & build nests using sticks, feathers etc. Spring 1. Trunk, branches, nest. Pre-School Children read the story: Jack & the Beanstalk'. They plant beans & watch as the roots & stalk grows. They also complete an experiment where they place white					•		o, com ig mo idea e	1 0 0 1 1 0 0 0
Reception Traditional Tales Bits & Bobs! A Long Time Ago Layered Learning Ago What a Wonderful World World World World World World World World Flants Children read the story 'Owl Babies' – They explore trees & build nests using adrace plants, including deciduous and evergeen deciduous and evergeen branches, nest. Traditional Tales Bits & Bobs! A Long Time Ago New Life Animals Around the World What a Wonderful World World Children read the story 'Owl Babies' – They explore trees & build nests using sticks, feathers etc. Spring 1. Trunk, branches, nest.			.,	<u> </u>				
Reception Traditional Tales Bits & Bobs! A Long Time Ago Layered Learning Ago Volume 1 KS1 NC Content Plants • identify and name a variety of common wild and garden plants, including deciduous and evergreen • Children read the story 'Owl Babies' – They explore trees & build nests using sticks, feathers etc. Spring 1. Trunk, branches, nest. Help Us. Animals Around the World What a Wonderful World World Children for learning in KS1 Reception • Children read the story 'Jack & the Beanstalk'. They plant beans & watch as the roots & stalk grows. They also complete an experiment where they place white		Autumr	n 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Reception Traditional Tales Bits & Bobs! A Long Time Ago Opportunities, Experiences & Vacabulary covered in EYFS to prepare children for learning in KS1 KS1 NC Content Pre-School Plants • Identify and name a variety of common wild and garden plants, including deciduous and evergreen • Children read the story 'Owl Babies' – They explore frees & build nests using sticks, feathers etc. Spring 1. Trunk, branches, nest. • Children read the story 'Jack & the Beanstalk'. They plant beans & watch as the roots & stalk grows. They also complete an experiment where they place white	Pre-School	Nursery Rh	ymes	Traditional Tales	Into the Woods	People Who	A Bugs Life	Splash!
Ago Layered Learning Opportunities, Experiences & Vocabulary covered in EYFS to prepare children for learning in KS1 KS1 NC Content Plants Identify and name a variety of common wild and garden plants, including deciduous and evergreen Plants Children read the story 'Owl Babies' – They explore trees & build nests using sticks, feathers etc. Spring 1. Trunk, branches, nest. Ago Layered Learning Fre-School Reception Children read the story 'Jack & the Beanstalk'. They plant beans & watch as the roots & stalk grows. They also complete an experiment where they place white		10.	- 5	100		Help Us.		0 0
Ago Layered Learning Opportunities, Experiences & Vocabulary covered in EYFS to prepare children for learning in KS1 KS1 NC Content Plants Identify and name a variety of common wild and garden plants, including deciduous and evergreen Plants Children read the story 'Owl Babies' – They explore trees & build nests using sticks, feathers etc. Spring 1. Trunk, branches, nest. Ago Layered Learning Fre-School Reception Children read the story 'Jack & the Beanstalk'. They plant beans & watch as the roots & stalk grows. They also complete an experiment where they place white								
Ago Layered Learning Opportunities, Experiences & Vocabulary covered in EYFS to prepare children for learning in KS1 KS1 NC Content Plants Identify and name a variety of common wild and garden plants, including deciduous and evergreen Plants Children read the story 'Owl Babies' – They explore trees & build nests using sticks, feathers etc. Spring 1. Trunk, pranches, nest. Ago Layered Learning Fre-School Reception Children read the story 'Jack & the Beanstalk'. They plant beans & watch as the roots & stalk grows. They also complete an experiment where they place white						COLUMN TO THE REPORT OF THE PERSON OF THE PE		••
Ago Layered Learning Opportunities, Experiences & Vocabulary covered in EYFS to prepare children for learning in KS1 KS1 NC Content Plants Identify and name a variety of common wild and garden plants, including deciduous and evergreen Plants Children read the story 'Owl Babies' – They explore trees & build nests using sticks, feathers etc. Spring 1. Trunk, branches, nest. Ago Layered Learning Fre-School Reception Children read the story 'Jack & the Beanstalk'. They plant beans & watch as the roots & stalk grows. They also complete an experiment where they place white			The second					
Ago Layered Learning Opportunities, Experiences & Vocabulary covered in EYFS to prepare children for learning in KS1 KS1 NC Content Plants Identify and name a variety of common wild and garden plants, including deciduous and evergreen Plants Children read the story 'Owl Babies' – They explore trees & build nests using sticks, feathers etc. Spring 1. Trunk, branches, nest. Ago Layered Learning Fre-School Reception Children read the story 'Jack & the Beanstalk'. They plant beans & watch as the roots & stalk grows. They also complete an experiment where they place white		7000	A.A.					
Ago Layered Learning Opportunities, Experiences & Vocabulary covered in EYFS to prepare children for learning in KS1 KS1 NC Content Plants Identify and name a variety of common wild and garden plants, including deciduous and evergreen Plants Children read the story 'Owl Babies' – They explore trees & build nests using sticks, feathers etc. Spring 1. Trunk, branches, nest. Ago Layered Learning Fre-School Reception Children read the story 'Jack & the Beanstalk'. They plant beans & watch as the roots & stalk grows. They also complete an experiment where they place white	Pocontion	Traditional	Talos	Rita & Robal	A Long Time	NowLife	Animals Around	What a Wandarful
Layered Learning Opportunities, Experiences & Vocabulary covered in EYFS to prepare children for learning in KS1 KS1 NC Content Pre-School Plants • identify and name a variety of common wild and garden plants, including deciduous and evergreen • including deciduous and evergreen • Children read the story 'Owl Babies' – They explore trees & build nests using sticks, feathers etc. Spring 1. Trunk, branches, nest. • Children read the story 'Jack & the Beanstalk'. They plant beans & watch as the roots & stalk grows. They also complete an experiment where they place white	<u>kecepiloli</u>	naamona	Tules	DIIS & DODS:	_	INGW LIIG		
Content Pre-School Reception					7.90	Zing.	ine wond	World
Content Pre-School Reception								
Content Pre-School Reception		(
Content Pre-School Reception		2.183×2,176	10/5					
KS1 NC ContentPre-SchoolReceptionPlants identify and name a variety of common wild and garden plants, including deciduous and evergreenChildren read the story 'Owl Babies' –				Lo	yered Learning			
Plants • Identify and name a variety of common wild and garden plants, including deciduous and evergreen • Children read the story 'Owl Babies' – They explore trees & build nests using sticks, feathers etc. Spring 1. Trunk, branches, nest. • Children read the story 'Jack & the Beanstalk'. They plant beans & watch as the roots & stalk grows. They also complete an experiment where they place white			ies, Expei		covered in EYFS to	orepare children foi		
 identify and name a variety of common wild and garden plants, including deciduous and evergreen They explore trees & build nests using sticks, feathers etc. Spring 1. Trunk, branches, nest. Beanstalk'. They plant beans & watch as the roots & stalk grows. They also complete an experiment where they place white 	KS1 NC Conte	<u>ent</u>	Pre-School			Reception		
of common wild and garden plants, including deciduous and evergreen sticks, feathers, nest. Trunk, the roots & stalk grows. They also complete an experiment where they place white	Plants		Children read the story 'Owl Babies' –			Children read the story 'Jack & the		
garden plants, including deciduous and evergreen sticks, feathers etc. Spring 1. Trunk, the roots & stalk grows. They also complete an experiment where they place white	1		They explore trees & build nests using			Beanstalk'. They plant beans & watch as		
deciduous and evergreen branches, nest. an experiment where they place white			stick	ks, feathers etc. <mark>Sprir</mark>	ng 1. Trunk,	the roots & stalk grows. They also complete		
flowers in different coloured pots & observe			branches, nest.			an experiment where they place white		
	flowers in different coloured pots & observe					d pots & observe		



- 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
- find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.
- Children plant marigold seeds. They
 observe their seeds grow & describe
 them as they do. Children water their
 seeds & discuss they need light & warmth
 to grow. Summer 1. Seed, light, water,
 growing.
- As part of observations of the different seasons, children describe what happens to different trees. <u>Autumn 1. Spring 2. Bare</u> <u>tree, Autumn.</u>

- the changes to the petals colour. Autumn 1. Absorbs.
- As part of their work on 'The Tiny Seed' –
 children plant their own seeds, learn about
 what it will need to grow & write instructions.
 Children learn about the best place for a
 plant to grow. Summer 1. Grow, seed.
- Children take part in weekly Forest School sessions. They observe the trees in different seasons and are encouraged to comment on the changes that they notice.
- Children learn that bees eat nectar & pollen. They learn the difference between the two. They learn about the pollination process. They paint their feet & run along a strip of paper to different flowers. Summer 1. Nectar, pollen.
- Children learn about each season throughout the year. They are taught about the difference between Evergreen & deciduous trees. Autumn 1. Evergreen, deciduous.

Animals, including Humans

- 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)
- Children focus on the Nursery Rhyme 'Heads, Shoulders, Knees & Toes' – they sing the song & locate the body parts on themselves & on a diagram. Autumn 1. Head, shoulder, knees, toes.
- Children draw self-portraits. They identify their facial features and discuss what they use each one for. Autumn 1. Eyes, Nose, Mouth, Ears.
- Children celebrate Halloween they explore skeletons & talk about the

- Children learn about dinosaurs. They identify their different features & talk about how they have adapted to survive. Children learn the difference between carnivores, herbivores & omnivores. Spring 1. Fossils, carnivore, herbivore, omnivore, adaptation.
- Children have live eggs delivered in the classroom. They watch as they hatch into ducklings & then care for the ducklings for two weeks as they grow. Children learn about what the ducklings need to survive.



- identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.
- 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.

- different bones. They learn to sing the song 'Dem Bones'. Autumn 2. Skeleton, bones, skull.
- Children read the story 'The Hungry Caterpillar'. They name the different foods eaten by the caterpillar & sort them into piles of healthy & unhealthy. Children talk about why healthy food is important for the human body & why unhealthy foods should only be eaten occasionally.
 Summer 1. Healthy, Unhealthy.
- Live caterpillars are delivered and children observe the changes from caterpillar – chrysalis – butterfly. Children make a class Caterpillar diary in which they describe the different parts of the life cycle & talk about what will happen next at each stage. Summer 1. Egg, caterpillar, chrysalis, butterfly.
- Children compare & categorise animals/creatures which live on land & those which live in the sea. Summer 2.
- Throughout the year, children learn to name & describe a range of animals, including fish, birds, reptiles & mammals.
- Children take part in PE lessons. They talk about the importance of exercise.
- Children help to care for the school therapy dog, Poppy. They learn about the things that she needs; water, food, exercise etc.

- They also look at the duckling life-cycle. Spring 2. Bill, webbed, drake, hatching, duckling.
- Children complete a topic called 'Animals Around the World' – they look at animals who live in the jungle, ocean, desert & farm. They learn about why each animal is well adapted to their habitats. Summer 1.
- As part of JIGSAW, children learn about the importance of healthy eating & an active lifestyle.
- As part of JIGSAW, children complete a unit on 'Changing Me'; they name parts of the body and understand how we grow from a baby to an adult.



Everyday Materials

- 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
- compare and group together a variety of everyday materials on the basis of their simple physical properties.
- 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 the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

- Children read the story of The Three Little Pigs – they explore and describe bricks, sticks & straw. Children test which material is the strongest. Autumn 2.
 Materials, brick, straw, sticks.
- Children test which materials would make the best pirate ship. They put pirates in paper & plastic boats and see which ones work best. They also explore which different objects float and sink. Summer 2. Float, sink.
- Children have access to a wide variety of different materials which are different textures in the Creative Area. Adults talk to them about what the different materials feel like.
- Children take part in different activities which explore changes of state; e.g. melting chocolate to make rice crispy cakes.

- Children read the story 'Whatever Next' –
 they talk about Space and learn about
 rockets. Children make their own rockets &
 tie them to a balloons. They learn about
 forces as they let go of their balloons &
 watch their rockets fly. Autumn 2. Force,
 gravity.
- Children read the story 'Somebody Swallowed Stanley'. They name a variety of different materials & learn about which ones can be recycled & which ones can't.
 Summer 1. Pollution, recycle, plastic.
- Children observe changes of state whilst making porridge for Goldilocks & the Three Bears. Autumn 1.
- Children design & make homes for the ducklings. They talk about which materials will be the best to use and explain why.
 Spring 2.

Seasonal Changes

- observe changes across the four seasons
- observe and describe weather associated with the seasons and how day length varies
- At the beginning of every season, children go on a walk around the school grounds and look for signs that the season has changed. They create a display in the classroom to remind them of the differences between the 4 seasons.
- Children learn that in the Winter, water can freeze and turn to ice. They have a delivery from 'Pip the Penguin' who challenges them to complete an ice

- Children name & order the 4 seasons. They
 can identify what humans need to wear in
 each of the seasons, and explain why.
- Children observe changes to plants/trees across the 4 seasons.
- Children observe changes to weather conditions across the 4 seasons.



			We make the difference.
	 experiment. Spring 1. Ice, frozen, snowflake, Winter. Children have access to the outdoor area everyday. They observe lots of different weather conditions & talk about what they need to do in relation to different weather; e.g. wear a coat with a hood in the rain, put on suncream when it is sunny. During circle time every day, children complete a weather chart. They learn to name a range of different weather conditions such as; sunny, rainy, cloudy, snowy, foggy, windy etc. 		
• 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 microhabitats • describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify	Children complete a topic about Minibeasts. They go on a minibeast hunt in the school grounds and learn about why some minibeasts are suited to living in dark, wet places. They read the story 'Super Worm' and talk about what worms do underground. Summer 1.	 When learning about Windbout animals who live in complete a 'blubber expendent that animals that live in a more layers of fat in order from the cold. Spring 1. It is completed the story 'I they learnt about animal Kalahari Desert. They expendent a more supposed their natural habitats. During weekly Forest Schaldren observe a ranger their natural habitats. Children learn that bees pollen. They learn about process. They paint their strip of paper to different Nectar, pollen. 	n Antarctica. They periment' & learn cold climates need er to protect them Blubber. Meerkat Mail' – als that live in the plore deserts on endore deserts on eat nectar & are ference between ut the pollination feet & run along a

ENJOY.	EMBRACE.	EVOLVE.		
We make the difference.				

and name different sources of food.	•	

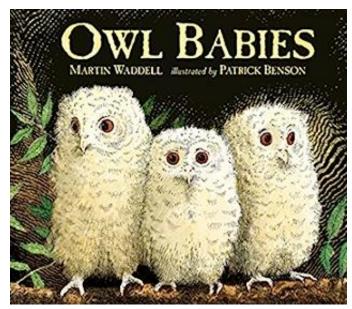
ENJOY. We make the difference.

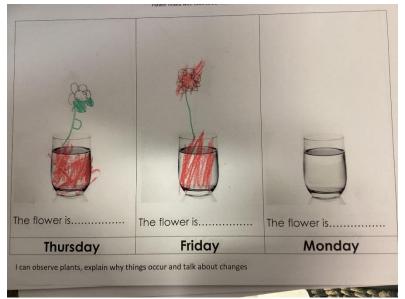
<u>Plants</u>















Animals, including Humans





























Everyday Materials

















ENJOY. EMBRACE. EVOLVE.

Seasonal Changes





<u>Living Things & their Habitats</u>

