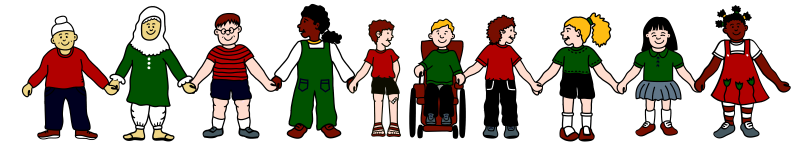


THE  
GILES NURSERY  
AND  
INFANTS'  
SCHOOL



# Curriculum Journey

## Science

### 2023-24

<b>Nursery</b>	
<b>Topic: Understanding the World</b>	
<b>Autumn: Rhymes &amp; Celebrations</b>	
<b>Key Vocabulary:</b> Nighttime, daytime, moon, stars, sleep, weather, cloudy, rain, sun, hot, cold, icy, snowy, frosty  Autumn, winter, spring, summer, leaves, trees, colour, changing  Life cycles – spider, spider web, young, spiderling, ladybird, egg  Fruit names (topic : health and wellbeing - using the 5 senses to explore and observe - touch, taste, smell, see, hear)  ‘Tell me more’, why?	
<b>Birth to Three</b>	<b>Three and Four Year Olds</b>
Repeat actions that have an effect. Explore materials with different properties. Explore natural materials, indoors and outside. Explore and respond to different natural phenomena in their setting and on trips. Make connections between the features of their family and other families. Notice differences between people.	Use all their 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 wide vocabulary. Begin to make sense of their own life-story and family’s history. Show interest in different occupations. Explore how things work. Plant seeds and care for growing plants. 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. Explore and talk about different forces they can feel. Talk about the differences between materials and changes they notice. Continue developing positive attitudes about the differences between people. Know that there are different countries in the world and talk about the differences they have experienced or seen in photos

Child initiated learning (indoor & outdoor free-flow - all areas of EYFS curriculum covered)

Daily routines and activities (Autumn main focus C & L and PSED but all areas of EYFS curriculum covered)

Morning greeting & getting ready for class

Stop, look & listen

Singing x 3

Story & rhyme time x 2

Handwashing and toilet time

Snack time

Counting activities, shape songs and activities

Adult led activity/Circle Time

Group discussion and sharing news

Preparing for home time

Adult led activity	Birth to Three	Three and Four Year Olds
Autumn Walk  <b>Observe / Tell me more</b>	Explore and respond to different natural phenomena in their setting and on trips.	Use all their 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 wide vocabulary.
Facts, stories, rhymes and songs about Autumn  <b>Observe / Explore</b>		
Facts, stories, rhymes and songs about ladybirds Ladybird hunt Painting ladybirds Life cycle of a ladybird	Explore and respond to different natural phenomena in their setting and on trips.	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.

<b>Observe / Explore</b>		
<p>Night time and daytime Talk about the differences between night time and daytime, the importance of sleep, which animals come out at night, the different jobs people do.</p> <p><b>Observe / Tell me more / Why</b></p>	<p>Explore and respond to different natural phenomena in their setting and on trips.</p>	<p>Use all their 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 wide vocabulary.</p>
<p>Facts, stories, rhymes and songs about spiders Spider &amp; web hunt – use magnifying glasses Playdough spiders</p> <p><b>Observe / Predict</b></p>	<p>Explore and respond to different natural phenomena in their setting and on trips.</p>	<p>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.</p>
<p>Weather, clouds, wind and rain</p> <p><b>Observe / Tell me more</b></p>	<p>Explore and respond to different natural phenomena in their setting and on trips.</p>	<p>Use all their senses in hands-on exploration of natural materials. Talk about what they see, using a wide vocabulary.</p>
<p>Science week – Health and Wellbeing Children to use their senses to feel, taste and smell the fruit from the story.</p> <p><b>Explore/ Why</b></p>	<p>Explore and respond to different natural phenomena in their setting and on trips.</p>	<p>Know that there are different countries in the world and talk about the differences they have experienced or seen in photos.</p>

<b>Nursery</b>	
<b>Topic: Jungle Animals &amp; Growing</b>	
<b>Term: Spring</b>	
<b>Key Vocabulary:</b>	
Nighttime, daytime, moon, stars, sleep, weather, cloudy, rain, sun, hot, cold, icy, snowy, frosty	
Autumn, winter, spring, summer, leaves, trees, colour, changing	
Life cycles, jungle – topic related names, animal facts - largest, fastest, tallest	
Seed, plant, flower, leaf, soil, water, grow	
'Tell me more', why?	
<b>Birth to Three</b>	<b>Three and Four Year Olds</b>
Repeat actions that have an effect. Explore materials with different properties. Explore natural materials, indoors and outside. Explore and respond to different natural phenomena in their setting and on trips. Make connections between the features of their family and other families. Notice differences between people.	Use all their 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 wide vocabulary. Begin to make sense of their own life-story and family's history. Show interest in different occupations. Explore how things work. Plant seeds and care for growing plants. 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. Explore and talk about different forces they can feel. Talk about the differences between materials and changes they notice. Continue developing positive attitudes about the differences between people. Know that there are different countries in the world and talk about the differences they have experienced or seen in photos
<b>Daily routines and activities &amp; Child Initiated Learning (indoor &amp; outdoor free-flow - all areas of EYFS curriculum covered)</b>	

Morning greeting & getting ready for class  
 Stop, look & listen  
 Singing x 3  
 Story & rhyme time x 2  
 Handwashing and toilet time  
 Snack time  
 Counting activities, shape songs and activities  
 Adult led activity/Circle Time  
 Group discussion and sharing news  
 Preparing for home time

Adult led activity	Birth to Three	Three and Four Year Olds
Facts, stories, rhymes and songs about winter.	Explore and respond to different natural phenomena in their setting and on trips.	Use all their senses in hands-on exploration of natural materials. Talk about what they see, using a wide vocabulary.
Winter walk - changes in winter season.  <b>Observe / Why / Predict</b>	Explore and respond to different natural phenomena in their setting and on trips.	Use all their senses in hands-on exploration of natural materials. Talk about what they see, using a wide vocabulary.
Finding out animal facts. Creatures that hibernate in winter. Where do animals live?  <b>Observe</b>	Explore and respond to different natural phenomena in their setting and on trips.	Understand the key features of the life cycle of a plant and an animal.
Comparing the local environment to a jungle environment.  <b>Observe</b>	Explore and respond to different natural phenomena in their setting and on trips.	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.

From seed to plant. Finding out about life cycles. <b>Observe/ Tell me more</b>	Explore and respond to different natural phenomena in their setting and on trips.	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.
Weather, clouds, wind and rain <b>Observe / Explore – kite making</b>	Explore and respond to different natural phenomena in their setting and on trips.	Use all their senses in hands-on exploration of natural materials. Talk about what they see, using a wide vocabulary.

<b>Nursery</b>	
Topic: Sand & Water Term: Summer	
<b>Key Vocabulary:</b> Nighttime, daytime, moon, stars, sleep, weather, cloudy, rain, sun, hot, cold, icy, snowy, frosty  Autumn, winter, spring, summer, leaves, trees, colour, changing  Water, ice, melting, frozen  Floating, sinking, wet, damp, dry, sand, sea  Topic related names – sea creatures and facts  Ponds, frogs, tadpole, froglet, frogspawn  'Tell me more', why?	
<b>Birth to Three</b>	<b>Three and Four Year Olds</b>
Repeat actions that have an effect.	Use all their senses in hands-on exploration of natural materials.

<p>Explore materials with different properties.          Explore natural materials, indoors and outside.          Explore and respond to different natural phenomena in their setting and on trips.          Make connections between the features of their family and other families.          Notice differences between people.</p>	<p>Explore collections of materials with similar and/or different properties.          Talk about what they see, using a wide vocabulary.          Begin to make sense of their own life-story and family's history.          Show interest in different occupations.          Explore how things work.          Plant seeds and care for growing plants.          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.          Explore and talk about different forces they can feel.          Talk about the differences between materials and changes they notice.          Continue developing positive attitudes about the differences between people.          Know that there are different countries in the world and talk about the differences they have experienced or seen in photos</p>
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**Daily routines and activities & Child Initiated Learning (indoor & outdoor free-flow - all areas of EYFS curriculum covered)**  
 Morning greeting & getting ready for class  
 Stop, look & listen  
 Singing x 3  
 Story & rhyme time x 2  
 Handwashing and toilet time  
 Snack time  
 Counting activities, shape songs and activities  
 Adult led activity/Circle Time  
 Group discussion and sharing news  
 Preparing for home time

<b>Adult led activity</b>	<b>Birth to Three</b>	<b>Three and Four Year Olds</b>
<p>Facts, stories, rhymes and songs about summer.</p> <p><b>Observe</b></p>	<p>Explore and respond to different natural phenomena in their setting and on trips.</p>	<p>Use all their senses in hands-on exploration of natural materials.          Talk about what they see, using a wide vocabulary.</p>



<p>Summer walk - changes in summer season.</p> <p><b>Observe / Tell me more</b></p>	<p>Explore and respond to different natural phenomena in their setting and on trips.</p>	<p>Use all their senses in hands-on exploration of natural materials. Talk about what they see, using a wide vocabulary.</p>
<p>What can you find in a rock pool and pond?</p> <p><b>Observe / Why</b></p>	<p>Explore materials with different properties. Explore natural materials, indoors and outside. Explore and respond to different natural phenomena in their setting and on trips.</p>	<p>Use all their senses in hands-on exploration of natural materials. Talk about what they see, using a wide vocabulary. Understand the key features of the life cycle of a plant and an animal.</p>
<p>Comparing the local environment to a seaside environment.</p> <p><b>Observe / Why</b></p>	<p>Explore materials with different properties. Explore natural materials, indoors and outside. Explore and respond to different natural phenomena in their setting and on trips.</p>	<p>Know that there are different countries in the world and talk about the differences they have experienced or seen in photos</p>
<p>Finding out about frog life cycles.</p> <p><b>Explore / Observe – tadpoles brought in</b></p>	<p>Explore and respond to different natural phenomena in their setting and on trips.</p>	<p>Use all their senses in hands-on exploration of natural materials.  Understand the key features of the life cycle of a plant and an animal.</p>
<p>Weather, sun, clouds, wind and rain</p> <p><b>Tell me more / Observe</b></p>	<p>Explore and respond to different natural phenomena in their setting and on trips.</p>	<p>Use all their senses in hands-on exploration of natural materials. Talk about what they see, using a wide vocabulary.</p>
<p>Use of water.</p> <p><b>Explore / Predict / Why</b></p>	<p>Explore materials with different properties. Explore natural materials, indoors and outside. Explore and respond to different natural phenomena in their setting and on trips.</p>	<p>Talk about the differences between materials and changes they notice. Use all their senses in hands-on exploration of natural materials. Talk about what they see, using a wide vocabulary.</p>

Ice experiments.  <b>Predict / Explore</b>	Explore materials with different properties. Explore natural materials, indoors and outside. Explore and respond to different natural phenomena in their setting and on trips.	Talk about the differences between materials and changes they notice. Use all their senses in hands-on exploration of natural materials. Talk about what they see, using a wide vocabulary.
Floating and sinking experiences  <b>Predict / Observe</b>	Explore and respond to different natural phenomena in their setting and on trips.	Talk about the differences between materials and changes they notice. Use all their senses in hands-on exploration of natural materials. Talk about what they see, using a wide vocabulary.
Sorting sea and river creatures  <b>Tell me more</b>	Explore and respond to different natural phenomena in their setting and on trips.	
Investigating wet/damp/dry sand  <b>Explore / Observe / Tell me more</b>	Explore materials with different properties. Explore natural materials, indoors and outside. Explore and respond to different natural phenomena in their setting and on trips.	Talk about the differences between materials and changes they notice. Use all their senses in hands-on exploration of natural materials. Talk about what they see, using a wide vocabulary.
Sand and water tray experiences.  <b>Explore / Why</b>	Explore materials with different properties. Explore natural materials, indoors and outside. Explore and respond to different natural phenomena in their setting and on trips.	Talk about the differences between materials and changes they notice. Use all their senses in hands-on exploration of natural materials. Talk about what they see, using a wide vocabulary.

## Reception

Topic: The Three Little Pigs

Term: Autumn

### Prior Vocabulary:

Nighttime, daytime, moon, stars, sleep, weather, cloudy, rain, sun, hot, cold, icy, snowy, frosty

Autumn, winter, spring, summer, leaves, trees, colour, changing

Fruit names (topic : health and wellbeing - using the 5 senses to explore and observe - touch, taste, smell, see, hear)

### Key vocabulary:

Natural, manmade, different

Materials: glass, wood, fabric, metal, plastic, straw, sticks, bricks, cement, sand

Working at exceeding – Include properties hard, soft, rough, bumpy, smooth

Air, wind, predict, observe, 'tell me more', hurricane, tornado

Eat, young, live

Topic related names: Wolves cubs, den, wild animals

Wash, germs, brush, teeth, exercise, fruit, vegetable

Fruit names (topic : health and wellbeing - using the 5 senses to explore and observe - touch, taste, smell, see, hear)

Predict, observe, 'tell me more- why?' explore

### **Activity**

Autumn Walk

### **Skills**

To make observations of the natural world.

### **Knowledge**

Knowing what to look for when searching for signs of autumn.

<p>Reception - Understand the effect of changing seasons on the natural world around them.          ELG - Explore the natural world around them, making observations and drawing pictures of animals and plants;          ELG - Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p>		<p>Observing changes over a period of time.</p>
<p>Investigating the force of air.           Three-Four Years Old - Explore and talk about different forces they can feel. Talk about the differences between materials and changes they notice</p>	<p>To make predictions          To investigate by carrying out simple tests.          To observe          To evaluate</p>	<p>Knowledge of materials and their properties.</p>
<p>Cleaning teeth with toothpaste and toothbrushes.           ELG -Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices.</p>	<p>How to brush your teeth correctly.          To investigate          To observe</p>	<p>Knowing why you have to clean your teeth.</p>
<p>Washing hands           ELG -Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices.</p>	<p>How to wash your hands effectively.          To investigate</p>	<p>Understanding why we wash our hands.</p>
<p>Exercises with the sports apprentice.</p>	<p>Carrying out the different physical activities.          To investigate</p>	<p>Exercises to keep healthy.          The effect of exercise on your body.</p>

ELG -Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices.	To observe	
Tasting fruit and vegetables. ELG -Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices.	Using your senses to experience the fruit and vegetables. To make predictions To investigate To observe	To know what fruit and vegetables are. To be able to name the different fruit and vegetables.
Seasonal changes – Winter Reception - Understand the effect of changing seasons on the natural world around them ELG - Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	To identify signs of a season. To observe changes over time.	What do we look for when the seasons change?

<b>Reception</b>
<b>Topic: The Gingerbread Man</b>
<b>Term: Spring</b>
<b><u>Prior Vocabulary:</u></b> Water, ice, melting, frozen. Floating, sinking, wet, damp, dry, sand, sea
<b><u>Key Vocabulary:</u></b>

Materials, raw, cooked, water, heat  
 Compare, different, similar  
 Predict, observe, 'tell me more- why?' explore

Topic related names: gingerbread, milk, oil, ginger, ingredient  
 Senses to describe – smell, taste, touch, see, hear

freeze, warm, hot

Activity	Skills	Knowledge
Seasonal changes - Spring Reception - Understand the effect of changing seasons on the natural world around them ELG - Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	To identify signs of a season. To observe changes over time.	What do we look for when the seasons change?
Investigating what happens to ice. ELG - Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	Using their senses to explore the world around them. Application of vocabulary and language Predict what will happen in different circumstances. Observe what they can see and feel. Explore – what is happening to the ice? Tell me more – What happened to the ice? Why?	Knowledge of ice and how it is formed. Knowledge of their senses. Knowing the language and vocabulary to be able to describe.
Investigating what happens to gingerbread men when placed in water, milk or oil. ELG - Understand some important processes and	Using their senses to explore the world around them. Application of vocabulary and language to	Knowledge of their senses. Knowing the language and vocabulary to be able to describe.

<p>changes in the natural world around them, including the seasons and changing states of matter.</p>	<p>describe what is happening to the gingerbread men.          Predict what will happen to each of the gingerbread men.          Observe what they can see and feel.          Explore – what is happening to the gingerbread men?          Tell me more – What happened to the gingerbread men?          Why?</p>	
<p>Investigating the ingredients used to make a Gingerbread Man</p> <p>ELG - Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p>	<p>Application of vocabulary to describe what they can see, feel, smell.          Using their senses to investigate the ingredients.          Tell me more          Why?</p>	<p>Knowing what the 5 senses are and how to use them.          Knowing the vocabulary linked to describing how the ingredients see, feel and smell.</p>
<p>To find similarities and differences between the raw and cooked Gingerbread Man.</p> <p>ELG - Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p>	<p>Able to talk about how things change – from being uncooked to cooked.          Predict          Observe          Tell me more          Why          Evaluate</p>	<p>Knows that the application of heat will change the appearance, smell and texture of the Gingerbread Man.</p>

**Reception**

**Topic:** Life Cycles and Summer

**Term:** Summer

**Prior Vocabulary:** Life Cycles

Life cycles, spider, spider web, young, spiderling, ladybird, egg

**Key Vocabulary:**

Chicks, chicken, hen, egg, life cycle, hatching, bird, eat, young, live

Topic related words – embryo, wings, feathers, beak, breads, yolk, white

**Prior Vocabulary:** Plants

seed, plant flower, leaf, soil, water, grow

**Key Vocabulary**

Root, stem, tree, petal, bud, sunlight, air, growing

**Prior Vocabulary:** Floating and Sinking

Floating, sinking, water

**Key Vocabulary:**

Observing, predicting, tell me – why?, explore

**Activity**

**Skills**

**Knowledge**



<p>Seasonal changes - Summer  Reception - Understand the effect of changing seasons on the natural world around them</p> <p>ELG - Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p>	<p>To identify signs of a season.  To observe changes over time.</p>	<p>What do we look for when the seasons change?</p>
<p>Questions to ask the chicks  ELG - Explore the natural world around them, making observations and drawing pictures of animals and plants.</p>	<p>Verbalising their questions through observations.</p>	<p>Knowing which words are used to ask a question (what, where, how etc.)  Knowledge of chicks.</p>
<p>Creating a life cycle of a chick.  ELG - Explore the natural world around them, making observations and drawing pictures of animals and plants.</p>	<p>Observations over time.  Tell me  Explore  Being able to create a representation of a life cycle of a chick.  Putting the life cycle in the correct order.</p>	<p>Knowing the life cycle of a chick.</p>
<p>Planting seeds and labeling a plant.  ELG - Explore the natural world around them, making observations and drawing pictures of animals and plants.</p>	<p>Observations over time.  Tell me  Explore</p> <p>Being able to put the labels in the right place.  Being able to create a picture of a flower using different resources.  Being able to cut and stick accurately.</p>	<p>Knowing the different parts of a flower and what they are used for.</p>
<p>Floating and sinking.</p>	<p>Predicting what will happen to the different</p>	<p>Understanding what is meant by floating and sinking.</p>

<p>3-4 years Talk about the differences between materials and changes they notice.</p>	<p>materials. Observations Tell me Explore and investigate Why Evaluate</p>	<p>Knowing which materials float and sink. Knowing what is meant by evaluating and predicting.</p>
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Year 1

Topic: Ourselves and Our Senses; The Natural World; Animals

Term: Autumn

Prior Vocabulary:

Senses: feel, hear, smell, see, taste, touch

Key Vocabulary : Animals (Humans)

Body Parts: head, neck, arms, elbows, legs, knees, face, ears, eyes, hair, mouth, teeth, nose

Prior Vocabulary:

Nighttime, daytime, sleep, weather, clouds, rain, sun, spring, summer, autumn, winter, weather, seasons

Key Vocabulary : Seasons- Autumn

changes, day, night, length of day, sun

Guidance-

weather types: rain, hail, snow, ice, frost, sun, showers, wind

Prior Vocabulary: Animals

Chicks, chicken, hen, egg, life cycle, hatching, bird, eat, young, live

Key Vocabulary : Animals

Pupils should know names of some animals:

For Example:

Fish: goldfish, tuna, salmon

Birds: blackbird, magpie, robin, sparrow, crow, swan

Reptiles: snake, lizard, tortoise

Mammals: mouse, horse, cow, sheep, hamster, rabbit

Amphibians: frog, toad, newt

Carnivore, omnivore, herbivore

Topic related vocabulary: warm blooded, cold blooded, hibernate, diurnal,  
paw, hoof, tail, fin, shell, skin, wings, beak, fur, scales, feathers

Activity	Skills	Knowledge
<p><b>Ourselves and Our Senses</b></p> <p>Linking body parts to each sense:</p> <p><u>Hearing</u> – Make pupils aware that the ear enables us to hear. Practical listening activities e.g. sound lotto game. Make listening ears. Sound walk.</p> <p><u>Seeing</u> – Make pupils aware that the eye enables us to see. Play ‘Spot the difference’ games. Play Kim’s game. Look at the eye test chart – make glasses. Blindfold game. Labeling the eye.</p> <p><u>Touching</u> – Make pupils aware that it is not just our hands that feel; the nerves in our skin enable feeling all over the body. Feel and describe a variety of differently textured objects in a feely box. Name in sand. Collage picture.</p>	<p>Working Scientifically –</p> <p>Identifying and classifying Children to use their observations and ideas to suggest answers to questions.</p>	<p>Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. NC</p> <p>Name and locate the basic parts of the human body.</p> <p>(Including: head, neck, arms, elbows, legs, knees, face, ears, eyes, hair, mouth, teeth)</p>

Smelling – Make sure pupils understand that we smell using our nose.

'Guess the smell' investigation.

Smell different foods.

Link to the scientist – Linda Buck

Tasting – Make sure pupils understand that it is the taste buds on our tongue that enables us to taste.

Discuss the different types of taste e.g. sweet, sour etc. Taste different fruits.

**Make a class graph to record favourite / least favourite fruit. This activity is cross curricular with computing.**

Play 'Simon says' with emphasis on naming parts and on identifying that humans all have the same parts.

Ask children to name and locate parts of the body using drawings and labels.

Sing 'head, shoulders, knees and toes' with actions.

Adapt to make own version 'head, elbows, thighs and feet'.

Working Scientifically –

Performing simple tests.

Children to use their observations and ideas to suggest answers to questions.

Working Scientifically –

Performing simple tests.

Record simple data to help answer questions

<p><b>Natural World – Seasonal Changes</b></p> <p>As a class children complete a daily calendar and discuss the weather.</p> <p>Seasonal Changes – Children to go on an Autumn walk and identify signs of seasonal change. Build upon prior knowledge.</p> <p>Children to research the weather and make a chart to record findings – weather, temperature, time and sunset.</p> <p>Discuss the difference in day length, making reference to the clocks changing and shorter day light hours.</p>	<p>Working Scientifically</p> <p>Observing changes over time</p> <p>Identifying and classifying</p> <p>Children to use their observations and ideas to suggest answers to questions.</p> <p>Opportunity to research – finding things out by using secondary sources of information too.</p>	<p>Observe changes across the four seasons.</p> <p>Observe and describe weather associated with the seasons and how day length varies. NC</p>
<p><b>Animals</b></p> <p>Children to identify and classify animals deciding how to sort and group objects by various criteria.</p> <p>Categories to include – fish, amphibians, reptiles, birds and mammals.</p> <p>Watch video clips of British wildlife to help children identify different categories.</p> <p>Children to record categories pictorially.</p> <p>Visit from Safari Stu - Learn about diet, habitat, sound and smell.</p>	<p>Working Scientifically -</p> <p>Identifying, grouping and classifying</p> <p>Researching - Use animal visit and simple secondary sources to find answers e.g. books, videos, photographs to identify, group and classify.</p> <p>To ask simple questions</p>	<p>Identify and name a variety of common animals (fish, amphibians, reptiles, birds and mammals)</p> <p>Identify and name a variety of common animals that are carnivores, herbivores and omnivores.</p> <p>Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). NC</p> <p>Group animals according to what they eat; and using their senses to compare different textures, sounds and smells. (Non- Statutory)</p>

Children to learn facts about the various groups. Look at diet, habitat, body structure. Cross curricular links with English – hedgehog fact files and Forest School.

Identify, name and sort animals that are carnivores, herbivores and omnivores.

Year 1

Topic: Winter including Birds and Materials

Term: Spring

Prior Vocabulary:

Nighttime, daytime, moon, stars, sleep, weather, cloudy, rain, sun, hot, cold, icy, snowy, frosty

Autumn, winter, spring, summer, leaves, trees, colour, changing, Air, wind, hurricane, tornado

Key Vocabulary : Seasons – Winter

changes, day, night, length of day, sun, temperature, chart, thermometer

Guidance-weather types: rain, hail, snow, ice, frost, sun, showers, wind

Prior Vocabulary:

Animals, Chicks, chicken, hen, egg, life cycle, hatching, wings, feathers, beak

Key Vocabulary: Animals – Birds

Pupils should know names of some animals:

Topic related -Birds: blackbird, magpie, robin, sparrow, crow, swan, talon, wing span, migration, prey

Prior Vocabulary:

natural, manmade, different

Materials: glass, wood, fabric, metal, plastic, straw, sticks, bricks, cement, sand



Working at exceeding – Include properties hard, soft, rough, bumpy, smooth

### Key Vocabulary : Materials

Everyday materials, object, wood, plastic, glass, metal, water, rock, brick, paper, fabrics, elastic, foil

Guidance -

hard/soft; stretchy/stiff; shiny/dull; rough/smooth; bendy/not bendy; waterproof/not waterproof; absorbent/not absorbent; opaque/transparent

Activity	Skills	Knowledge
<p><b>Natural World – Seasonal Changes</b></p> <p>As a class children complete a daily calendar and discuss the weather.</p> <p>Seasonal Changes – Children to go on a winter walk and identify signs of seasonal change. Build upon prior knowledge. Look back at Autumn. What has changed?</p> <p>Children to research the weather and make a chart to record findings – weather, temperature, time and sunset. Compare to Autumn data.</p> <p>Discuss the difference in day length, making reference to the clocks changing and shorter day light hours. What time is it now dark? Compare to autumn.</p> <p>Children to complete a weekly weather chart using symbols similar to those of the BBC. Start to look at making own tables.</p>	<p>Working Scientifically</p> <p>Observing changes over time</p> <p>Identifying and classifying – children to use their observations and ideas to suggest answers to questions.</p> <p>Opportunity to research – finding things out by using secondary sources of information too.</p> <p>Perform a simple test.</p> <p>Gather and record data to help in answering questions</p>	<p>Observe changes across the four seasons.</p> <p>Observe and describe weather associated with the seasons and how day length varies. NC</p>

<p>Seasons – Investigating rain Children to set up an investigation to find out how much rain has fallen in a week.</p>		
<p><b>Animals</b></p> <p>To learn to name and identify a range of British birds.</p> <p>To take part on the RSPB bird watch survey.</p> <p>To use the local environment to collect information and explore and answer questions about birds in their habitat.</p> <p>To learn about the diet of various birds – make bird feeders.</p>	<p>Working Scientifically -</p> <p><b>Identifying, grouping and classifying</b></p> <p><b>Researching</b> - Use animal visit and simple secondary sources to find answers e.g. books, videos, photographs to identify, group and classify.</p> <p><b>Gathering and recording data.</b></p>	<p>Identify and name a variety of common animals (birds)</p> <p>Describe and compare the structure of a variety of common animals (birds) NC</p> <p>Group animals according to what they eat; and using their senses to compare different textures, sounds and smells. (Non- Statutory)</p>
<p><b>Materials</b></p> <p>1. Naming Materials</p> <p>To identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock by matching a material to its name.</p>	<p>Working Scientifically -</p> <p><b>Perform simple tests.</b></p> <p><b>Identify and classify.</b></p> <p><b>Observe closely</b></p> <p><b>Gather and record data to help answer questions</b></p> <p><b>Ask simple questions</b></p>	<p>Distinguish between an object and the material from which it is made</p> <p>Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock</p> <p>Describe the simple physical properties of a variety of everyday materials</p> <p>Compare and group together a variety of everyday materials on the basis of their simple physical properties. (NC)</p>

## 2. Objects and Materials

To distinguish between an object and the material from which it is made by naming objects and identifying the material which they are made from.

## 3. Properties

To distinguish between an object and the material from which it is made by looking and touching different materials.

## 4. Testing Properties

To describe the simple physical properties of a variety of everyday materials by testing different objects.

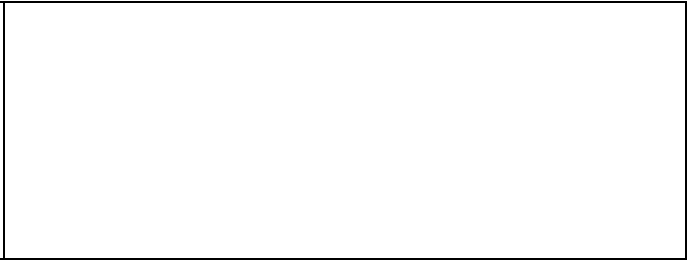
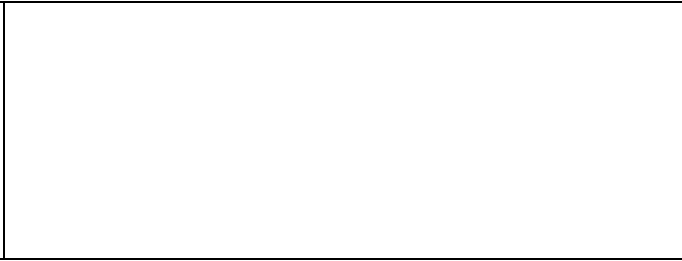
## 5. Umbrella Investigation

To observe closely by watching what happens to teddy.

To use their observations and ideas to suggest answers to questions by deciding which materials would be suitable to make an umbrella from.

6 Sorting

To compare and group together a variety of everyday materials on the basis of their simple physical properties by sorting objects.



Year 1

Topic: Plants / Summer

Term: Summer

Prior Vocabulary:

Nighttime, daytime, moon, stars, sleep, weather, cloudy, rain, sun, hot, cold, icy, snowy, frosty

Autumn, winter, spring, summer, leaves, trees, colour, changing

Air, wind, hurricane, tornado

Key Vocabulary : Seasons

changes, day, night, length of day, sun, temperature, chart, thermometer

Guidance-weather types: rain, hail, snow, ice, frost, sun, showers, wind

Prior Vocabulary:

Seed, plant flower, leaf, soil, water, grow

Root, stem, tree, petal, bud, sunlight, air, growing

Key Vocabulary : Plants

Wild garden plants, deciduous, evergreen, flowering, blossom, petals, fruit, bulb, trunk, branches, vegetables, buds

Pupils should know - Names of flowers

Pupils should know- Names of deciduous and evergreen trees

Pupils should know - Plant structure

Activity	Skills	Knowledge
<p><b>Natural World – Seasonal Changes</b></p> <p>As a class children complete a daily calendar and discuss the weather.</p> <p>Seasonal Changes – Children to go on a spring walk and identify signs of seasonal change. Build upon prior knowledge. Look back at autumn and winter. What has changed?</p> <p>Children to research the weather and make a chart to record findings – weather, temperature, time and sunset. Compare to Autumn and winter data.</p> <p>Discuss the difference in day length, making reference to the clocks changing and going forward. What time is it now dark? Compare to autumn and winter.</p> <p>Children to complete a weekly weather chart using symbols similar to those of the BBC. Make own table.</p>	<p>Working Scientifically</p> <p>Observing changes over time</p> <p>Identifying and classifying – children to use their observations and ideas to suggest answers to questions.</p> <p>Opportunity to research – finding things out by using secondary sources of information.</p> <p>Gather and record own data – make own chart.</p>	<p>Observe changes across the four seasons.</p> <p>Observe and describe weather associated with the seasons and how day length varies. NC</p>
<p>Plants</p> <p>1.Planting Sunflowers</p> <p>To identify and describe the basic structure of a variety of common flowering plants by planting a sunflower.</p>	<p>Working Scientifically</p> <p>To ask simple questions</p> <p>Opportunity to research – finding things out by using secondary sources of information.</p>	<ul style="list-style-type: none"> <li>• identify and name a variety of common wild and garden plants, including deciduous and evergreen trees</li> <li>• identify and describe the basic structure of a variety of common flowering plants, including trees. N/C</li> </ul>

<p>2. Wild Plants</p> <p>To identify and name a variety of common wild plants by going on a wild plant hunt. (Sishes Wood)</p> <p>Forest School – seed bombs / plant detectives (crest award)</p> <p>3. In the Garden</p> <p>To identify and name a variety of common garden plants in the context of drawing a garden featuring common garden plants.</p> <p>Forest School – plant vegetables and harvest</p> <p>4. Terrific Trees</p> <p>To identify and name a variety of common wild and garden plants, including deciduous and evergreen trees by identifying trees from their leaves.</p> <p>5. Parts of Plants</p> <p>To identify and describe the basic structure of a variety of common flowering plants, including trees by making and labelling plant pictures.</p>	<p>To gather and record data to help in answering questions by finding out which wild plant is the most common – field research.</p> <p>Time lapse of sunflowers growing – making observations over time.</p> <p>Record results</p> <p>Evaluate</p>	
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<p>6.How Do Plants Grow? Investigation. To observe closely, using simple equipment in the context of observing the growth of a sunflower. What does a flower need to grow?</p>		
<p><b>Natural World – Seasonal Changes</b></p> <p>As a class children complete a daily calendar and discuss the weather.</p> <p>Seasonal Changes – Children to go on a summer walk and identify signs of seasonal change. Build upon prior knowledge. Look back at autumn / winter / spring. What has changed? Emphasise the importance of not looking at the sun.</p> <p>Children to research the weather and make a chart to record findings – weather, temperature, time and sunset. Compare to Autumn / winter / spring data.</p> <p>Discuss the difference in day length. What time is it now dark? Compare to autumn / winter / spring.</p> <p>Children to complete a weekly weather chart using symbols similar to those of the BBC. Make own table.</p>	<p>Working Scientifically <b>Observing changes over time</b> <b>Identifying and classifying</b> – children to use their observations and ideas to suggest answers to questions. <b>Opportunity to research</b> – finding things out by using secondary sources of information too.</p> <p><b>Make own chart</b></p> <p><b>Patterns – what do we notice over time?</b></p>	<p>Observe changes across the four seasons. Observe and describe weather associated with the seasons and how day length varies. NC</p>



Compare across the four seasons. Look for patterns over time.

Year 2

Topic – Healthy Me/ An Island Home

Term: Autumn Term

Prior Vocabulary:

Body Parts: head, neck, arms, elbows, legs, knees, face, ears, eyes, hair, mouth, teeth

Senses: feel, hear, smell, see, taste, touch

Pupils should know names of some animal names from each group: birds, fish, mammals, reptiles, amphibians

carnivore, omnivore, herbivore

Key vocabulary: Animals, including humans

- Growing into adults can include reference to baby, toddler, child, teenager, adult
- Offspring, grow/ growth, survival, humans, body temperature, water, food, air, exercise, food, hygiene, food groups, carbohydrates, proteins, fats, dairy, fruit and vegetables

Topic Related: vitamins and minerals, pulse, heart rate, muscles, energy, oxygen

Activity	Skills	Knowledge
1. Grouping foods and the healthy food plate	* identifying and classifying	* 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
2. Importance of exercise and types of exercise	* using their observations and ideas to suggest answers to questions	* describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene
3. Importance of dental hygiene	* using their observations and ideas to suggest answers to questions	* describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene
4. Health and hygiene including washing hands and hair, keeping clean, germs	* using their observations and ideas to suggest answers to questions *perform simple tests *observes closely, using simple equipment	* describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene
5. Investigate the effect of different substances on our teeth	* observing closely, using simple equipment performing simple tests * using their observations and ideas to suggest answers to questions * gathering and recording data to help in answering questions	* describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene

Year 2

Subject: Science – Uses of Everyday Materials

Topic : A Land Far, Far Away (Antarctica and Native Americans)

Term: Spring

Prior Vocabulary:

- Materials, everyday materials, object, wood, plastic, glass, metal, water, rock, brick, paper, fabrics, elastic, foil. Natural and man made, different

Key vocabulary: Materials

- Paper, cardboard, brick, solid objects, suitable / unsuitable purposes, changing, squashing, bending, twisting and stretching

Topic vocabulary – inventors, scientists, prototype

Activity	Skills	Knowledge
1. Identify materials and their properties (including wood, metal, plastic, glass, brick, rock, paper and cardboard)	* using their observations and ideas to suggest answers to questions * identifying and classifying	* Identify and compare the suitability of a variety of everyday materials for particular uses.
2. Compare suitability of materials by packing a rucksack to take to Antarctica (including wood, metal, plastic, glass, brick, rock, paper and cardboard)	* using their observations and ideas to suggest answers to questions *performs simple tests	* Identify and compare the suitability of a variety of everyday materials for particular uses.
3. Frostbite investigation – which material is most suitable to prevent frostbite?	* using their observations and ideas to suggest answers to questions * performing simple tests *gathering and recording data	* Find out how the shapes of solid shapes made from some materials can be changed by squashing, bending, twisting and stretching.
4. Research invention of new materials e.g. Charles Martin Hall (aluminium) – using different resources to conduct research.	* asking simple questions and recognising that they can be answered in different ways	* Inventors

5. Be safe, be seen (Crest Star)	*performing simple tests *observing closely using simple equipment	* Identify and compare the suitability of a variety of everyday materials for particular uses.
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Year 2

Subject: Science – Plants

Topic: A Land Far, Far Away (Antarctica and Native Americans)

Term: Spring

Prior Vocabulary:

- Roots, stem, trees leaves, flowers, seed, plants, water, wild garden plants, deciduous, evergreen, flowering, blossom, petals, fruit, bulb, trunk, branches, vegetables, buds, soil

Key Vocabulary: Plants

- Seedling, grow/growth, mature plant, light, temperature, healthy, germination, survival

Topic Vocabulary: adapt

Activity	Skills	Knowledge
Growing seeds and bulbs (nasturtium seeds, narcissus bulbs) including planting, care, observation and description of growth: - growth investigation (effect of water / no water, light / no light, hot / cold temperature) - seed / bulb diaries - plant survival in Antarctica	* asking simple questions and recognising that they can be answered in different ways * observing closely, using simple equipment * performing simple tests * using their observations and ideas to suggest answers to questions * identifying and classifying * using their observations and ideas to suggest answers to questions * gathering and recording data to help in answering questions	* 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. * How plants survive in different environments

## Year 2

Subject: Science – Living things and their habitats  
Topic: Nature Detectives (Habitats and Life Cycles)  
Term: Summer Term

Initial hook and assessment activity – Year group trip to College Lake environmental Centre.

Initial assessment activity to gauge starting point of new learning in year 2. Draw and describe an animal's habitat that they are already familiar with.

### Prior Vocabulary:

- Animals, Chicks, chicken, hen, egg, life cycle, hatching

### Key vocabulary: Living things and their habitats

- Dead, alive, living, non-living, habitats, plants, survival, micro-habitats, food, food chain, food sources

Topic Related Vocabulary –metamorphosis, bees, wasps, honey bee, larva, pupa, egg, adult, pollination

- The following examples might be used:

Egg, larva, pupa, adult - honey bee (cross curricular link with non chronological report in English)

egg, caterpillar, pupa, butterfly

spawn, tadpole, frog

Activity	Skills	Knowledge
Scavenging hunt – children go out and collect a range of different objects and think about whether the things they have collected are living or dead.	* identifying and classifying * using their observations and ideas to suggest answers to questions	Explore and compare the differences between things that are living, dead, and things that have never been alive.
Look around the classroom to find things that have		

never lived.		
How to care for a baby	* using their observations and ideas to suggest answers to questions	* 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)
Match a range of images of adults and their offspring including those completely change when they grow (metamorphosis).	* asking simple questions and recognising that they can be answered in different ways * identifying and classifying * using their observations and ideas to suggest answers to questions	Notice that animals, including humans, have offspring that grow into adults.
Life cycle of the butterfly Observe the lifecycle in class using real life context (Insect lore caterpillar kits)	* asking simple questions and recognising that they can be answered in different ways * using their observations and ideas to suggest answers to questions observing closely using simple equipment	Notice that animals, including humans, have offspring that grow into adults.
Look at types of animals by classification in two contrasting habitats. Children record what they have found in a prepared table as a tally.  Record as a pictogram/bar chart	* gathering and recording data to help in answering questions * asking simple questions and recognising that they can be answered in different ways * using their observations and ideas to suggest answers to questions * identifying and classifying	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 different plants and animals in their habitats, including microhabitats.
Discuss ways to find the answer to the question:  Is it true that animals live in habitats that match their colour?	* asking simple questions and recognising that they can be answered in different ways * using their observations and ideas to suggest answers to questions	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.



<p>Investigate pollination to develop their understand of how plants and animals depend on each other.</p>	<ul style="list-style-type: none"> <li>* asking simple questions and recognising that they can be answered in different ways</li> <li>* identifying and classifying</li> <li>* using their observations and ideas to suggest answers to questions</li> </ul>	<p>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.</p>
<p>Investigate different food chains including humans</p>	<ul style="list-style-type: none"> <li>* asking simple questions and recognising that they can be answered in different ways</li> <li>* identifying and classifying</li> <li>* using their observations and ideas to suggest answers to questions</li> </ul>	<p>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.</p> <p>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.</p>
<p>Research how to look after a pet, e.g. Guinea pig and record their finds.</p>	<ul style="list-style-type: none"> <li>* asking simple questions and recognising that they can be answered in different ways</li> <li>* using their observations and ideas to suggest answers to questions</li> </ul>	<p>Find out and describe the basic needs of animals, including humans for survival (water, food and air)</p>
<p>Field trip to Rye Meads Mini beast hunt Pong dipping</p>	<ul style="list-style-type: none"> <li>* identifying and classifying</li> <li>* using their observations and ideas to suggest answers to questions</li> <li>*observing closely</li> <li>*gathering and recording data</li> </ul>	<p>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.</p>

Key Vocabulary Progression for Science

Working Scientifically – Key vocabulary built upon from previous year.
<p><b>EYFS</b> Predict Observe Tell me more Explore Why? Evaluation</p>
<p><b>Year 1</b> Questions Predictions Explain Observing Equipment Testing Recording Results Charts Sorting Grouping Measuring</p>
<p><b>Year 2</b> All of Year 1 Identifying Classifying Data Diagram Tables Contrast Describe Answer Fair testing</p>