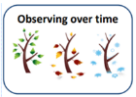











Year 1 Autumn Term

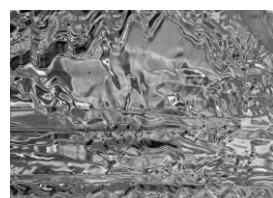
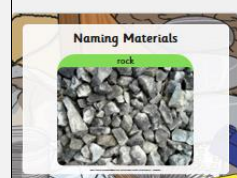
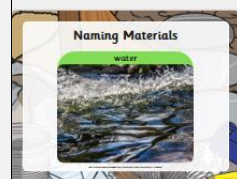
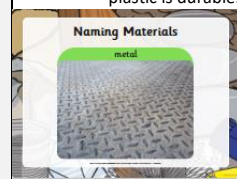
	AUTUMN 1 st Half					Autumn 2 nd Half				
Science (All NC subject content covered)	<p>Everyday Materials, Part 1</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> distinguish between an object and the material from which it is made identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock describe the simple physical properties of a variety of everyday materials; compare and group together a variety of everyday materials because of their simple physical properties <p>Working Scientifically (WS):</p> <p>During year 1, pupils should be taught to use the following practical scientific methods, processes, and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> asking simple questions and recognising that they can be answered in different ways observing closely, using simple equipment performing simple tests identifying and classifying using their observations and ideas to suggest answers to questions gathering and recording data to help in answering questions. 					<p>Seasonal Changes (Autumn)</p> <p>Pupils should be taught to:</p> <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. <p>Working Scientifically (WS):</p> <p>During year 1, pupils should be taught to use the following practical scientific methods, processes, and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> asking simple questions and recognising that they can be answered in different ways observing closely, using simple equipment performing simple tests identifying and classifying using their observations and ideas to suggest answers to questions gathering and recording data to help in answering questions. 				
	<p>Animals including humans, Part 1</p> <p>Pupils should be taught to:</p> <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. <p>Working Scientifically (WS):</p> <p>During year 1, pupils should be taught to use the following practical scientific methods, processes, and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> asking simple questions and recognising that they can be answered in different ways observing closely, using simple equipment performing simple tests identifying and classifying using their observations and ideas to suggest answers to questions gathering and recording data to help in answering questions. 									
WS opportunities	 <p>How does our class vista change over time?</p>	 <p>What materials are the objects made from and why?</p>			 <p>What do lions eat and how/why is it different to zebras?</p>	 <p>How does our class vista change over time?</p>				 <p>What do lions eat and how/why is it different to zebras?</p>
Key questions / knowledge and understanding to be explained Key Knowledge and facts to be recalled	<p>1. What I know now:</p> <p>Children to draw simple labelled pictures for a range of objects, naming the material(s) in them. Some will be able to give simple reasons for the choice of material. At this stage, spellings may not be correct.</p>					<p>1. What I know now: Seasons Pictures</p>				
						<p>1. What I know now:</p> <p>Draw three animals and label them. What makes them all an animal? What is similar? What makes them different? Identify any common misconceptions in this introductory lesson. As an extension, children can try to group animals drawn by themselves and friends and use the reasoning sheet below to identify what animals they would expect to see in certain habitats and why. This can</p>				

For example: glass – window/mirror, plastic – bottle, metal – table leg, wood – tabletop, rock – brick, water – ice



cubes.

- Children learn spellings for key materials including glass, plastic, metal, wood, rock, and water. They learn the uses for these materials and can give basic properties of each, such as glass is see-through, and plastic is durable.



Children create a picture for each season – what can they write about each season. How are they similar/different?

The Four Seasons



- Children know and can spell the months for each of the four seasons:

The Four Seasons			
Autumn		Winter	
September		December	
October		January	
November		February	
Spring		Summer	
March		June	
April		July	
May		August	

Children list and/or draw events that happen in each of the autumn months, **September, October, and November**, including the start of the school year, Halloween, Bonfire Night and add any relevant details of autumn to these images/lists.

- I can describe how the weather changes from summer to autumn; focus on autumn - I can describe day length in autumn.



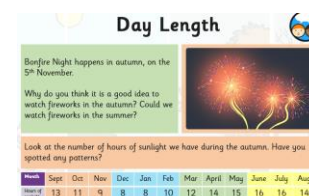
Kids raking leaves.avi

<https://www.bbc.co.uk/bitesize/articles/zbxb47h>

Children watch a video(s) of leaves falling from trees and are shown the BBC weblink above that explains autumn changes. Children explain that this is a result of the shortening day – less sunlight and cooler temperatures mean that trees start to lose their leaves so that they are protected during winter and new buds can grow in spring.

Leaves change colour as the sunlight lessens because the trees absorb the remaining nutrients to store for food over winter.

Class choose one 'vista' in the school grounds (with a tree) to photograph each month and refer back to during each 'season's science learning – what is the same? What is different?



be supported by a walk around the school grounds and discussion on different habitats, including the local beach. Why are some animals found in both locations (birds, gulls) and some in one or the other (adders)?



2. Different types of animals

Children can name a selection of common animals in the different animal groups: They explain the differences using vocabulary related to the animal group, habitat, movement, and others. **For example**, children can explain that a dog and cat are both mammals because they give birth to live young, but are different for a variety of reasons, including size. They also know that dogs and cats are pets or domesticated animals that come from wild animals.

Animal Groups Key



Different Types of Animals

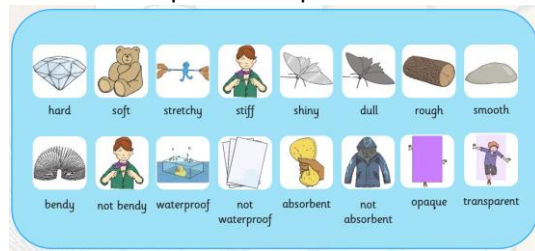


Different Types of Animals



Children complete an activity sheet matching materials to the correct name and some add adjectives to describe their material using words such as: Make a class list of adjectives that can be used to describe the objects/materials, including:

Hard soft see-through (transparent) Stretchy durable stiff Shiny dull Rough smooth Bendy Not bendy Waterproof Not waterproof Absorbent



Match the label to the same material.

plastic:

metal:

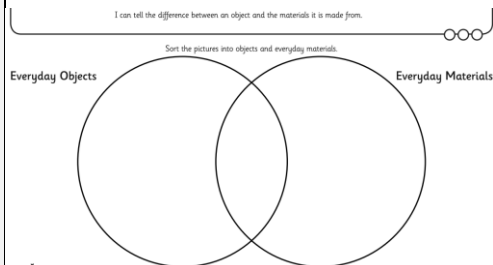
glass:

wood:

rock:



- Children identify the difference between objects and the materials they are made from. They use a simple Venn diagram to do this as shown below:



The children then complete simple sentences (and drawings) for a range of everyday objects detailing what they are called and what they are made from – they reflect on their initial ideas in lesson one at this point.:

The scissors are made from metal and plastic. The glass is made from glass. The table is made from wood and metal. The lunch box is made from fabric and plastic.

Objects and Materials

I can tell the difference between an object and the materials it is made from.

Look at the pictures and read the sentences. Choose the right words from the word bank at the bottom of the page to make the sentences make sense.

	The _____ are made from _____ and _____.
	The _____ is made from _____.
	The _____ is made from _____ and _____.

metal	scissors	wooden	table
glass	wood	plastic	rock

Changes around Us

Draw a picture or write the name of each animal you see and where you see it (in the sky, in a tree), use the Animal Groups Key to help you to identify which group it is from.

Name: _____ Where: _____ Group: _____	Name: _____ Where: _____ Group: _____	Name: _____ Where: _____ Group: _____
Name: _____ Where: _____ Group: _____	Name: _____ Where: _____ Group: _____	Name: _____ Where: _____ Group: _____

Real World Context – Autumn Harvest

The word 'harvest' comes from the Old English word harvest meaning 'autumn', aptly the season for gathering the food of the land. This was a vital time of year when success was a genuine matter of life or death. A prosperous harvest ensured that a community would be fed throughout the potentially barren winter months.

Observing Animals

To identify and name some common animals.

Draw a picture or write the name of each animal you see and where you see it (in the sky, in a tree), use the Animal Groups Key to help you to identify which group it is from.

Name: sheep Where: in a field Group: mammal	Name: _____ Where: _____ Group: _____
Name: _____ Where: _____ Group: _____	Name: _____ Where: _____ Group: _____

Children can explain that all animals within a group are similar but not identical. They can reference this to each animal group, using the sheets below.

Comparing Animals

To describe and compare the structure of a variety of common animals.

Animal Group	Things That Are the Same	Things That Are Different
birds	feathers	colour
mammals		
fish		
reptiles		
amphibians		

3. Carnivores, Herbivores and Omnivores

Remember it!

Children can explain key differences between birds, mammals, amphibians, reptiles, and fish as learnt in the last session.

Remember It

Match the description to the right group. Talk to your partner about which group you think each is.

Amphibians	Birds have a beak, two legs, feathers and wings.
Mammals	Fish live in water. They have scaly skin, fins to help them swim and breathe through gills.
Birds	Mammals are animals that breathe air, grow hair, or fur and feed on mother's milk as a baby.
Fish	Reptiles breathe air. They have scales on their skin.
Reptiles	Amphibians live in the water as babies and on land as they grow older. They have smooth, slimy skin.

Children know that all living things need to eat and that what animals eat is called their **diet**.

Animal diets can be sorted into three groups:

Carnivore: Meat eaters

4. Children create a poster to describe the properties of one (or more) of the materials discussed in the unit so far (glass, wood, metal, etc.).

Description

Now have a go at describing these materials yourself






Wood _____

Paper _____

Metal _____

Plastic _____

Properties Poster

Make a poster which describes one of these materials: wood, plastic, glass, metal, water or rock. Write the word in the middle, and then add the properties and some examples of objects which are made from your material around the outside.



5. **What have we learnt? Share the following video clip as a stimulus:**
<https://www.bbc.co.uk/bitesize/clips/zm2imp3> What materials are shown? How are they being used? Why? Could another material be used in the same way?

Children refer to their initial drawings and diagrams from lesson 1 – what have we learnt and what do we now know? Children create a mini presentation in small groups to share with other groups and/or the whole class. Presentation should include reference to objects, materials, and properties and why objects are made from certain materials and not others. **For example, scissors are made from metal because it is durable and sharp. Clothes are made from fabric because it is soft and easy to cut. Cardboard would not make a good building because it is not strong or waterproof.**

Vocabulary

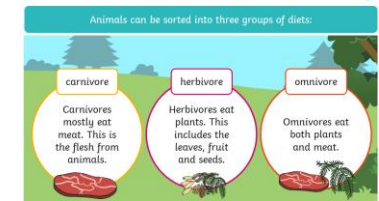
Wood • Plastic • Glass • Metal • Water • Rock • Brick • Paper • Fabrics • Elastic • Foil Properties: • Hard / soft • Stretchy / stiff • Shiny /dull • Rough / smooth • Bendy / not bendy • Waterproof / not waterproof • Absorbent / not absorbent

Seasons Summer • Autumn • Winter • Spring • Day • Daytime Weather: • Wind • Rain • Snow • Hail • Sleet • Fog • Sun • Hot • Warm • cold

Herbivore: Plant eaters

Omnivore: Eat meat and plants

Diets

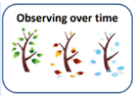




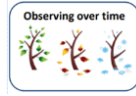





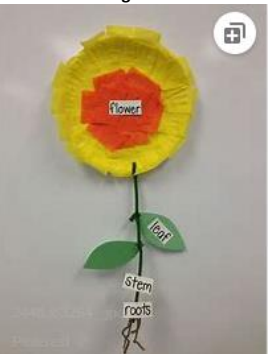


Children learn that humans are naturally **omnivores**, but that they can choose to be vegetarian (herbivore) if they find the right nutrients in other food types. Some humans also choose to be Vegan, so do not eat any animal product.

Children research two (or more) different animals and identify the food they eat. They place the animals in the correct diet group and compare the two, making links to the animal type as well. Children produce an information page on the animals and their diets, which is then made into a reference book for the class library.

fish, amphibians, reptiles, birds and mammals. • Senses – touch, smell, vision, taste, hearing. • fur, spine, wings, scales, tail
 Omnivores – meat and plants (examples badger, human, bear, chicken). • Carnivores – meat eating (examples, dog, cat, lion, tiger, snake). • Herbivores – plant eating (examples, cows, horses, mice).

Year 1 Spring Term

	Spring 1 st Half					Spring 2 nd Half				
Science (All NC subject content covered)	Seasonal changes (Winter) Pupils should be taught to: <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. 		Animals including humans, Part 2 Pupils should be taught to: <ul style="list-style-type: none"> 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. 			Plants Pupils should be taught to: <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. 				
	Working Scientifically (WS): During year 1, pupils should be taught to use the following practical scientific methods, processes, and skills through the teaching of the programme of study content: <ul style="list-style-type: none"> asking simple questions and recognising that they can be answered in different ways observing closely, using simple equipment performing simple tests identifying and classifying using their observations and ideas to suggest answers to questions gathering and recording data to help in answering questions. 		Working Scientifically (WS): During year 1, pupils should be taught to use the following practical scientific methods, processes, and skills through the teaching of the programme of study content: <ul style="list-style-type: none"> asking simple questions and recognising that they can be answered in different ways observing closely, using simple equipment performing simple tests identifying and classifying using their observations and ideas to suggest answers to questions gathering and recording data to help in answering questions. 			Working Scientifically (WS): During year 1, pupils should be taught to use the following practical scientific methods, processes, and skills through the teaching of the programme of study content: <ul style="list-style-type: none"> asking simple questions and recognising that they can be answered in different ways observing closely, using simple equipment performing simple tests identifying and classifying using their observations and ideas to suggest answers to questions gathering and recording data to help in answering questions. 				
WS opportunities	 How does our class vista change over time?					 How does my bean change over time?	 Which wild plant is most common?		 What does a bean need to grow? What happens to the bean if I take away sunlight/Water/Soil?	
Key questions / knowledge and understanding to be explained Key Knowledge and facts to be recalled	1. What I know now: Seasons Pictures Children recreate a picture for each season – what can they write about each season. How are they similar/different? What can they remember from their learning in Autumn 1? The Four Seasons 		1. What I know now: Draw, label and compare human and dog/cat. Children draw a picture of a human and label the parts. Children draw a dog or cat and label the parts. Children explain the similarities and differences between the two. Can they remember any learning from Autumn 1? 2. I can compare the body parts of different animals.			1. What I know now: Draw and label a tree and flowering plant. Can you name any flowering plants? Children could be given art resources to 'make' their image: 				

2. Children know and can spell the months for each of the four seasons:

The Four Seasons			
Autumn		Winter	
September		December	
October		January	
November		February	
Spring		Summer	
March		June	
April		July	
May		August	

Children list and/or draw events that happen in each of the winter months, **December, January, and February**, including the Christmas, New Year's Eve, Shrove Tuesday, Valentines' Day and add any relevant details of winter to these images/lists.

3. I can describe how the weather changes from autumn to winter; focus on winter - I can describe day length in winter.



SnowScene1.mov

<https://www.bbc.co.uk/teach/class-clips-video/science-ks1-ks2-winter-weather-behaviour-british-animals-plants/zbcg92p>

Children watch a video(s) of snow falling and are shown the BBC weblink above that explains winter changes. Children know that the day shortens, and temperatures decrease, meaning that some animals hibernate, and many find it hard to find food. Sometimes humans provide food for animals during the winter. Garden birds are given nuts and sheep are given straw. Ploughing the soil turns up worms and grubs for seagulls to eat. Many animals find food without the help of humans so must be ready for any opportunity.

Some animals **hibernate**: Hedgehogs, bats, and dormice

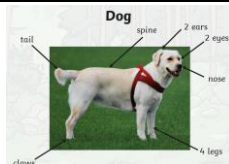
Some **migrate**: birds

Some animals **adapt** by growing more fur or finding different food sources – foxes, squirrels, rabbits, and hares.

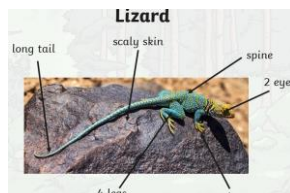


Children know that **deciduous** trees lose their leaves, but **evergreen** trees do not.

Children can explain the temperature drop and how this can lead to frost and ice in winter months.



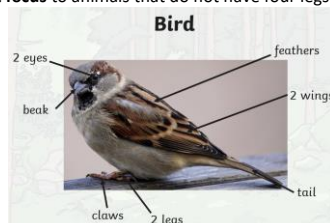
Children discuss the labelled diagram of a dog and then identify animals that have similar body structures, building on their first session in week 1. They may articulate that a cat and fox has four legs, two eyes, a tail, etc... Explain that they are also different because of size, shape, colour, etc...



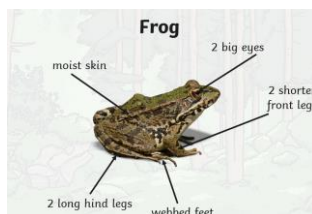
Teacher to emphasize this point by sharing an image of an animal that has similar characteristics but also clear differences, such as the lizard shown above.

Children label two similar animals with a key difference as well, such as the lizard and dog shown. How do the different parts of each animal help them survive?

Shift focus to animals that do not have four legs:



How does a bird's structure support how it lives? What can it do that a dog can't do, for example?

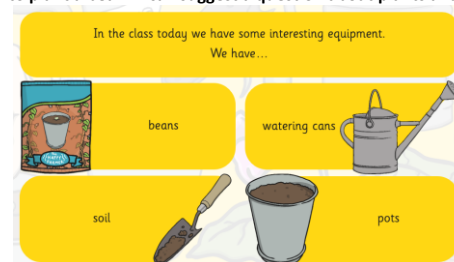


How is the frog's structure helpful to the way it lives?

Odd one out:

Children discuss and identify the odd animal out, giving reasons for their choices:

2. I can describe how to plant a bean. I can suggest a question about plants and a way we could answer it.



What could we do with this equipment? What questions could we ask and answer using the equipment we have in class today? What could we find out?

Articulate that we want our beans to grow big and strong, so what do they need? **Soil, water, sunlight (warmth).**

Children plant their beans and write simple instructions for each stage:



Working Scientifically: What will happen if...we take away the water, soil, or sunlight?

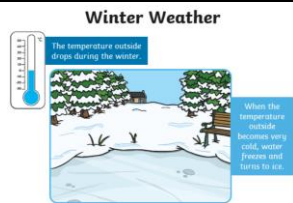
Teacher to plant 3 beans with these elements removed. Children to predict what will happen to each and make comparison to their beans, which will have all required elements provided.

Children keep a weekly diary of their bean (and the ones planted by teacher) for the comparative investigation.

3. **WS: WEEKLY BEAN PLANT CHECK – OBSERVE, MEASURE AND DRAW PLANTS AT THIS MOMENT USING DIARY BOOKLET. I can identify and name common wild plants. I can gather information to answer a question.**

A wild plant is one that grows by itself. Our beans are not wild plants because we are helping them to grow. A wild plant seed grows where it falls. It doesn't need to be planted. It doesn't need to be cared for as it grows. If a wild plant grows where it is not wanted, it might be called a weed.

Common Wild Plants – Children can name the plants below and articulate a feature(s) of the plant using real life experience.



Continue with Class Vista Photographs – discuss changes as we have moved into winter. Class choose one 'vista' in the school grounds (with a tree) to photograph each month and refer back to during each 'season's science learning – what is the same? What is different?

Real World Context – Hibernation

Some animals must hibernate during winter to preserve energy and survive the cold months. They eat before winter arrives and store fat, which allows them to go into a deep sleep during winter. In the UK, hedgehogs, bats and dormice hibernate. Create a poster sharing this and explaining why they hibernate.

Animal Odd One Out

Which animal is the odd one out and why?



Animal Odd One Out

Which animal is the odd one out and why?



Animal Odd One Out

Which animal is the odd one out and why?



Animal Body parts and their uses:

Tusks



- Tusks are long, continuously growing front teeth (usually in pairs) that stick out well beyond the mouth.
- Tusks are generally curved.
- Tusks have a variety of uses depending on the animal.
- Male Rhinoceros use their tusks when fighting to show they are the strongest.
- They are also used in defence against attackers.
- Elephants use their tusks to dig up and bring back.
- Walrus use their tusks to grip on ice.

Claws



- A claw is a curved and pointed nail attached to the end of a toe or finger on most mammals, reptiles and birds.
 - Claws are used to catch and hold prey but they may also be used for digging, climbing trees, self-defence and grooming.
- Can you think of some other animals that have claws?

Fins



- Fins are on the outside of aquatic animals bodies.
- They are used to help the aquatic animals swim faster through the water.
- Some aquatic animals have fins that are used to make them look more attractive to other aquatic animals.

Aquatic animals live in the water and depend on it for survival. There are various groups of aquatic animals including fish and mammals.

Gills



Some animals have gills so they can breathe underwater.

Do humans have gills?

What do animals that live on land use to breathe?

Shells



- Shells helps to shield animals from predators.
- The shell protects their internal organs.

Common Wild Plants

These are dandelions.
They have bright yellow flowers.
They have fluffy white seed heads.
Some people like to blow the seeds and make a wish!



Common Wild Plants

These are daisies.
They have white petals with bright yellow centres.
They grow in the grass.
Sometimes, people use them to make daisy chains.



Common Wild Plants

These are buttercups.
They have shiny yellow petals.
They have pointed leaves.
The adults have played a game where you hold one under someone's shoe to see if it turns yellow!



This is clover.

Clover has white or pink flower heads.
It has leaves in groups of three.
Some people think it is very lucky to find a four leaf clover!



These are nettles.

They have purple, prickly leaves.
They have long green square leaves.
Be very careful not to touch them, they will give you a itchy sting!



Common Wild Plants

These are brambles.
They have very prickly leaves.
They have white flowers.
They can grow very big.
In the autumn, brambles give blackberries!



These are dog roses.

They have long pink flowers.
They have small, round, pinkish buds.
In the autumn they give big red berries called hips.



This is ivy.

It has heart shaped or three pointed leaves.
It is an evergreen.
It climbs on trees and walls, or creeps along the ground.



Working Scientifically: Which wild plant is most common in our school's grounds? Children conduct a wild plant search around the grounds and make a tally list of the number of times they spot each type. Teacher then models adding up the numbers of each child/group and identifies the most/least common wild plant in the school.

Wild Plant Hunt

Look carefully for these wild plants. Each time you see one, make a tick on the tally chart.

Wild Plant	Tally	Number
Dandelion		
Daisy		
Buttercup		
Clover		
Nettle		
Bramble		
Dog Rose		
Ivy		

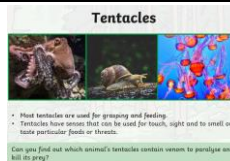
4. **WS: WEEKLY BEAN PLANT CHECK – OBSERVE, MEASURE AND DRAW PLANTS AT THIS MOMENT USING DIARY BOOKLET.** I can identify and name some garden plants.

Gardens are places where people grow plants. Some people grow plants because they are nice to look at. Some people use their gardens for growing things to eat. You can plant your bean plant in a garden when you take it home. Eventually it will grow tasty beans!

Grass: Grass is a special kind of plant that looks good and is comfortable to walk on and sit on.

Other garden plants:





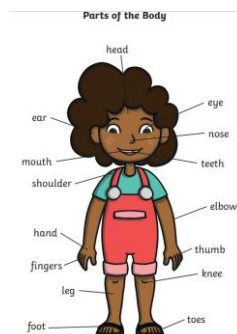
- A. Children choose an animal from a selection of photos provided by teacher. Draw the animal and label its body parts. **Extension:** write a sentence(s) explaining how its body parts help it survive.



animal photos.pdf

- B. Children choose one key feature from, draw a picture of animal with it and write a sentence(s) explaining how it helps the animal. **Example: a kangaroo uses its tail to balance. A fish uses its gills to breathe...**
3. I can identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.

Children label the basic parts of the body as shown on the diagram below. Children articulate how each body part is useful to humans (**comparing this to previous learning an animal body parts**).



Children create their own garden drawing and label some plants they would like to have in it.

5. **WS: WEEKLY BEAN PLANT CHECK – OBSERVE, MEASURE AND DRAW PLANTS AT THIS MOMENT USING DIARY BOOKLET. I can identify trees by their leaves. I can sort deciduous and evergreen leaves.**

There are two types of trees, deciduous and evergreen. An evergreen tree keeps its green leaves all year round, even in the winter. A deciduous tree loses its leaves each year in autumn and winter.



In spring, deciduous trees grow new blossoms and leaves and in summer deciduous trees have many leaves and some begin to grow fruit or flowers.















Children complete a tree hunt in the school grounds, using a magnifying glass to examine and tick off leaves for each tree they encounter.

Children can use this labelled diagram to explain how the human body allows humans to explore the five senses shown below:
For example, my eyes allow me to see. My nose helps me to smell. The skin allows me to feel touch...

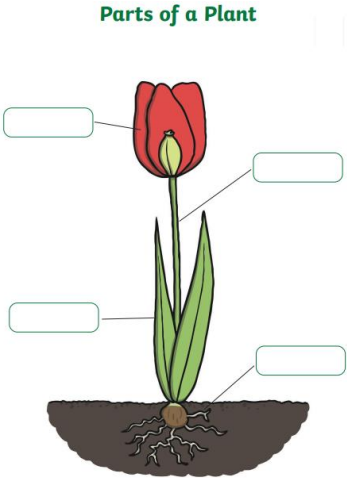
Key Vocabulary	
sight	Your eyes let you see all the things around you.
hearing	Your ears let you listen to all the things around you. Your brain is able to tell what different sounds are.
touch	Your skin gives you the sense of touch. You can tell if something is warm, cold, smooth or rough without even looking at it!
taste	Your sense of taste comes from your tongue. You can tell if something tastes bitter or sweet. You might have some tastes you like and some you don't.
smell	You smell using your nose. Your nose can tell if things smell nice or not nice.

Tree Hunt

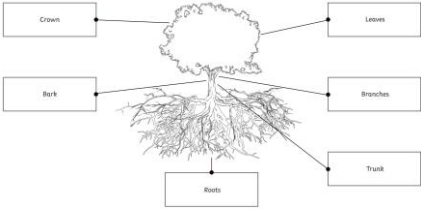
Look carefully for these trees. Check each tree off when you spot it.

		
<input type="checkbox"/> oak	<input type="checkbox"/> holly	<input type="checkbox"/> hawthorn
		
<input type="checkbox"/> silver birch	<input type="checkbox"/> elder	<input type="checkbox"/> rowan
		
<input type="checkbox"/> ash	<input type="checkbox"/> horse chestnut	<input type="checkbox"/> lime
		
<input type="checkbox"/> beech	<input type="checkbox"/> yew	<input type="checkbox"/> sycamore

6. **WS: WEEKLY BEAN PLANT CHECK – OBSERVE, MEASURE AND DRAW PLANTS AT THIS MOMENT USING DIARY BOOKLET.** I can label the parts of a plant. I can say the names of parts of trees.
Children know and can label the roots, stem, leaves and flower on a simple plant diagram.














Children can label the parts of a tree:



7. **WS: WEEKLY BEAN PLANT CHECK – FINAL CONCLUSION - OBSERVE, MEASURE AND DRAW PLANTS AT THIS MOMENT USING DIARY BOOKLET.** I can talk about how my bean plant has grown. I can say what plants need to grow well and give reasons for my answers.

Vocabulary	<p>Seasons Summer • Autumn • Winter • Spring • Day • Daytime Weather: • Wind • Rain • Snow • Hail • Sleet • Fog • Sun • Hot • Warm • cold</p>	<p>fish, amphibians, reptiles, birds and mammals. • Senses - touch, smell, vision, taste, hearing. • fur, spine, wings, scales, tail Omnivores - meat and plants (examples badger, human, bear, chicken). • Carnivores - meat eating (examples, dog, cat, lion, tiger, snake). • Herbivores - plant eating (examples, cows, horses, mice).</p>	<p>Wild plants • Garden plants • Deciduous • Evergreen • Root • Leaves • Bud • Blossoms • Stem • Petals • Trunk • Branches</p>

Year 1 Summer Term

	Summer 1 st Half					Summer 2 nd Half				
Science (All NC subject content covered)	<p>Seasonal Changes (Spring)</p> <p>Pupils should be taught to:</p> <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. <p>Working Scientifically (WS):</p> <p>During year 1, pupils should be taught to use the following practical scientific methods, processes, and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> asking simple questions and recognising that they can be answered in different ways observing closely, using simple equipment performing simple tests identifying and classifying using their observations and ideas to suggest answers to questions gathering and recording data to help in answering questions. 		<p>Researching Real Life Scientists</p> 			<p>Seasonal Changes (Summer)</p> <p>Pupils should be taught to:</p> <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. <p>Working Scientifically (WS):</p> <p>During year 1, pupils should be taught to use the following practical scientific methods, processes, and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> asking simple questions and recognising that they can be answered in different ways observing closely, using simple equipment performing simple tests identifying and classifying using their observations and ideas to suggest answers to questions gathering and recording data to help in answering questions. 		<p>Everyday Materials, Part 2</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> distinguish between an object and the material from which it is made identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock describe the simple physical properties of a variety of everyday materials; compare and group together a variety of everyday materials because of their simple physical properties <p>Working Scientifically (WS):</p> <p>During year 1, pupils should be taught to use the following practical scientific methods, processes, and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> asking simple questions and recognising that they can be answered in different ways observing closely, using simple equipment performing simple tests identifying and classifying using their observations and ideas to suggest answers to questions gathering and recording data to help in answering questions. 		
WS opportunities	 <p>How does our class vista change over time?</p>				<p>Research Using Secondary Sources</p>  <p>What can I find out about: Ole Kirk Christiansen, Mae Jemison, George Mottershead, George Symons and Linda Brown Buck?</p>	 <p>How does our class vista change over time?</p>			 <p>How much water for the perfect sandcastle?</p>	<p>Research Using Secondary Sources</p> 

Key questions / knowledge and understanding to be explained
Key Knowledge and facts to be recalled

- What I know now: Seasons Pictures**
Children recreate a picture for each season – what can they write about each season. How are they similar/different? What can they remember from their learning in Autumn 1 and Spring 1?

The Four Seasons



- Children know and can spell the months for each of the four seasons:

The Four Seasons

Autumn	Winter
September	December
October	January
November	February
Spring	Summer
March	June
April	July
May	August

Children list and/or draw events that happen in each of the spring months, **March, April, and May**, including Easter, and add any relevant details of spring to these images/lists.

- I can describe how the weather changes from winter to spring; focus on spring - I can describe day length in spring.

Winter to spring timelapse

Children watch a video(s) of spring timelapse above that shows the dramatic changes from winter to spring. Children explain that this is a result of the lengthening day – more sunlight and warmer temperatures mean that new buds can start to grow on trees and plants. Spring is the start of new life, with many animals beginning to nest and/or give birth to young, including lambs and chicks.



Days lengthen and more sunlight hours allow for life to begin growth again after the winter pause.

Day Length



- Initial thoughts** – present children with a photograph of each scientist. Children to make notes on who they think the people are and what they may do. Elicit that each is a scientist and explain their links to our science learning.

- (a) Scientist 1



Ole Kirk Christiansen (Everyday Materials) was born in 1891 in the village of Filskovand, Denmark and invented Lego in 1949. He was a **carpenter** by trade. Lego is made from plastic and can be used to make lots of amazing objects. There is even a Lego Theme Park in the United Kingdom. The name Lego was chosen from the Danish words “LEg GOdt” that mean “play well”.

- (b) Scientist 2



Mae Carol Jemison (born October 17, 1956) is an American engineer, physician, and former NASA astronaut. She became the first **African American** woman to travel into space when she served as a mission specialist aboard the Space Shuttle Endeavour, during which she orbited the Earth for nearly eight days in 1992.

- (c) Scientist 3



George Mottershead (Animals including Humans/Plants) was born in 1894 and died in 1978. He founded Chester Zoo in 1931. This zoo was unusual at the time as the animals did not live in cages. They lived in larger enclosures.

- (d) Scientist 4



George James Symons (Seasonal Changes) was born on 6 August 1838 and died on 10 March 1900. He invented his own version of the rain gauge that is still used by meteorologists today.

- (d) Scientist 5



Linda Brown Buck (Animals, including Humans) is an American biologist. She discovered that mammals have odorant receptors in their noses. This means they can smell over 10,000 different smells. She won the Nobel Prize in 2004.

- (a) Preparing to present - what have we found out? What surprised you? Each pair of children given one

- What I know now: Seasons Pictures**
Children recreate a picture for each season – what can they write about each season. How are they similar/different? What can they remember from their learning in Autumn 1, Spring 1, and Summer 1?

The Four Seasons



- Children know and can spell the months for each of the four seasons:

The Four Seasons

Autumn	Winter
September	December
October	January
November	February
Spring	Summer
March	June
April	July
May	August

Children list and/or draw events that happen in each of the summer months, **June, July, and August**, including Sports' Day, the end of the school year, and summer holidays, and add any relevant details of summer to these images/lists.

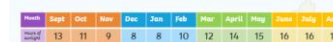
- I can describe how the weather changes from spring to summer; focus on summer - I can describe day length in summer.

Cornwall summer timelapse

Children watch a video(s) of Cornwall summer timelapse above. Children explain the changes in summer after discussing the video and relating it to their experiences; that in summer, the days lengthen and temperatures rise, meaning that humans enjoy the sunshine and warmth (although weather can change!). Plants flower and fruits grow, and food is plentiful for animals. Lighter evenings mean we may go to bed in the light.

Lighter Evenings

'You might notice that the daylight lasts longest during the summer months. It may still be light when you go to bed!'



- What can I remember:**
Children to complete a simple mind-map of what they remember from studying materials in Autumn 2.

- WS – Beach visit. Children investigate the best mixture of sand and water to make a sandcastle.**



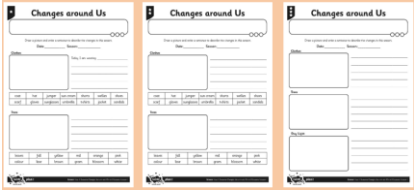

<https://www.kiwico.com/blog/the-science-behind/the-science-behind-sandcastle-building>



Children to work in small teams to investigate the best water to sand mixture for a sand-castle – children will need access to water, measuring jugs and buckets. Once they find the best consistency, challenge the children to make a sand castle village, town or city in their groups.

- WS – Which material makes the best tent? Children investigate a range of materials to see if they would make a good tent material. Identify need for material to be waterproof, but also lightweight and easy to manipulate.**



	<p>Continue with Class Vista Photographs – discuss changes as we have moved winter to spring. Class choose one 'vista' in the school grounds (with a tree) to photograph each month and refer back to during each 'season's science learning – what is the same? What is different?</p> <p>Real World Context – Spring is the beginning of new life Use the school birdhouse camera to identify birds nesting and hopefully having eggs to hatch as chicks. If this is empty, use:</p> <p>Chick hatching timelapse</p> <p>Children create a poster sharing the key facts of spring and how it effects animals and humans.</p>	<p>of the five scientists to develop their knowledge into an oral presentation.</p> <p>3. (b) Presenting our findings – children present their research to another pair of children in class.</p> <p>4. What have we learnt about each scientist? How is their research linked? What do we know now that we didn't know in lesson 1?</p>	<div>  <p>More Signs of Summer</p> <p>Look around... you might notice these signs of summer around you!</p> <p>sunflowers lavender lilium daisies</p> </div> <div>  <p>More Signs of Summer</p> <p>lawnmower ice cream green leaves butterflies picnic</p> </div> <p>Continue with Class Vista Photographs – discuss changes as we have moved spring to summer. Class choose one 'vista' in the school grounds (with a tree) to photograph each month and refer back to during each 'season's science learning – what is the same? What is different?</p> <div>  </div> <p>Real World Context – Summer beach visits and BBQs</p> <div>  </div> <p>Children describe the changes in Perran during the summer holidays – more people, warmer weather, swimming in the sea...</p>	
Vocabulary	<p>Seasons Summer • Autumn • Winter • Spring • Day • Daytime</p> <p>Weather: • Wind • Rain • Snow • Hail • Sleet • Fog • Sun • Hot • Warm • cold</p>	<p>Ole Kirk Christiansen Mae Carol Jemison George Mottershead George James Symons Linda Brown Buck</p>	<p>Seasons Summer • Autumn • Winter • Spring • Day • Daytime</p> <p>Weather: • Wind • Rain • Snow • Hail • Sleet • Fog • Sun • Hot • Warm • cold</p>	<p>Working Scientifically Wood • Plastic • Glass • Metal • Water • Rock • Brick • Paper • Fabrics • Elastic • Foil Properties: • Hard / soft • Stretchy / stiff • Shiny /dull</p>

				<ul style="list-style-type: none">• Rough / smooth• Bendy / not bendy• Waterproof / not waterproof• Absorbent / not absorbent
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