



Three yearly cycle of Science & Environmental education topics with learning objectives by Stage

Year 1:

- The Human Body, especially heart & lungs
- Materials and their properties
- Forces – push, pull squeeze or twist
- Life Cycles

Year 2:

- Light & Sound
- Forces – Magnetism and floating and sinking
- Animal Families
- Food & Digestion

Year 3:

- Habitats for Living
- The Seasons & weather
- Plants
- The Senses

The human body, especially the heart & lungs

- Be aware of/ be able to name body parts
- Be aware of/ understand that we have hearts that beat in our bodies
- Be aware of/ understand that we breathe in & out & that oxygen fuels our bodies
- Be aware of/ understand circulation
- Be aware of how to keep ourselves healthy by exercising

Stage 1 Show an awareness	Stage 2 Explore	Stage 3 Understand	Stage 4 Know that	Stage 5 Show an understanding
Children can: Show an awareness of body movements, such as touching their fingers and toes.	As before plus, children can: Explore moving different body parts	As before plus, children can: Understand which items of clothing match to different body parts	As before plus, children can: Know names of different external body parts	As before plus, children can: Explain that we have hearts that beat in our bodies
Experience songs and activities which involve movement of different parts of the body	Explore and respond to songs and rhymes naming body parts, body percussion etc.	Understand and name different body parts	N/A	N/A
Show an awareness of different media that can be used inside or outdoors which encourage the use of different parts of the body	Explore play materials inside and outdoors where adults can ask the children to use certain parts of their body	Understand that different body parts create different movements e.g. nod, kick, wave, smile, blink etc	Know that our heart pumps blood (Train carriage analogy) and the role of our lungs in breathing in and out	Explain that we breathe in & out & that oxygen fuels our bodies
N/A	Explore different physical activity opportunities. Adults to make the children aware of changes to the body and that this helps us to be healthy.	Understand that taking part in physical activity changes our body and that this helps us to be healthy.	Know that there is an effect of exercise on our bodies – heart and breathing and that this helps us to be healthy.	Explain the effect of exercise on our body, that this makes us healthy, and suggest other ways that they could be physically active outside of school.

Materials and their Properties

- Be aware/understand that temperature can change everyday materials.
 - Be aware/understand that things can be mixed together to make something different
 - Be aware/understand that some changes are permanent and some are temporary
 - Be aware/understand that light can travel through some materials and not others
 - Identify and compare the suitability of a variety of everyday materials for particular uses
 - Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting, and stretching
 - Distinguish between an object and the material from which it is made
 - Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock
 - Describe the simple physical properties of a variety of everyday materials
- Compare and group together a variety of everyday materials on the basis of their simple physical properties

Stage 1: Show an awareness	Stage 2: Explore	Stage 3: Understand	Stage 4: Know that	Stage 5: Explain
Children can: Show an awareness of different textures and materials in their environment.	As before plus, children can: Explore the properties of materials – bendy, rigid, soft, hard	As before plus, children can: Understand the properties of materials – bendy, rigid, soft, hard	As before plus, children can: Know that different materials have different properties and they are used in different ways. Know a variety of everyday materials, including wood, plastic, glass, metal, water, and rock	As before plus, children can: • Explain the simple physical properties of a variety of everyday materials • Explain the difference between an object and the material from which it is made • Explain how to identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock • Explain how to compare and contrast a variety of everyday materials on the basis of their simple physical properties • Explain the suitability of a variety of everyday materials for particular uses
Show an awareness of actions and respond, as if to request a repeated action/ get a desired effect	Explore actions to get a desired effect	Understand how to refine actions to get a desired effect	N/A	N/A
Show an awareness of how things melt	Explore how to make things melt	Experiment with ways to speed up melting	Know that some changes are permanent such as cooking food, and some are temporary, such as melting	Explain how the shapes of solid objects can be made from some materials can be changed by squashing, bending,

Show an awareness of how materials are changed by heat – cooking etc.	Explore how materials are changed by heat	Understand that some materials are changed by heat		twisting, and stretching and that some changes are permanent and some are temporary.
Show an awareness of how materials can be changed by mixing	N/A	N/A	N/A	N/A
N/A	Explore materials which allow light to pass through Explore materials which cast shadows	N/A	Know that light can travel through some materials and not others	N/A

Forces - push, pull, squeeze and twist

- Explore/ Be aware of/ understand different forces (push; pull; gravity; friction etc.)
- Be aware of/ understand that we can create forces with our bodies
- Be aware of/ understand that forces can be used to move things (cause & effect)
- Explore moving parts & machines
- Understand & respond to language related to forces
- Explore and communicate about different forces they can feel.

Stage 1: Show an awareness	Stage 2: Explore	Stage 3: Understand	Stage 4: Know that	Stage 5: Explain
Children can: Show an awareness of how pushes, pulls, twists or squeezes can make things move, stop, change shape or direction.	As before plus, children can: Explore how pushes, pulls, twists or squeezes can make things move, stop, change shape or direction.	As before plus, children can: Understand that pushes, pulls, twists or squeezes can make things move, stop, change shape or direction.	As before plus, children can: Know that forces can be applied to make changes and intentionally apply forces to make things move, stop, change shape or direction.	As before plus, children can: Explain that a force can cause a change in speed, shape or direction. Explain that a force can be a push, a pull, a squeeze or a twist. Explain different forces (push; pull; gravity; friction etc.) in action
Show an awareness of toys that move	Explore toys that move	Understand how toys move and sort toys them accordingly	Know that construction can be used to create toys that move	Explain how we can create forces with our bodies and use forces to make toys without moving parts move – a football, play dough, a balloon, a paper plane etc.
Show an awareness of language/ actions related to forces	N/A	Understand language/ actions related to forces	Know how to make requests using language/ actions related to forces Know how to communicate about different forces they can feel.	Explain what is happening using language related to forces
Show an awareness of actions & respond, as if to request a repeated action/ get a desired effect	Explore actions to get a desired effect	Understand how to refine actions to get a desired effect	N/a	N/a

Experience forces in action on their bodies in school	Experience forces in action, visiting a park	Experience forces in action, visiting an adventure playground	Experience forces in action, visiting an adventure playground	Experience forces in action, visiting a theme park such as Twinlakes or Wicksteed
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Life Cycles

- Be aware of/ understand a basic life cycle (butterfly/ frog)
- Understand that all living things change as they grow
- Be aware of/ understand how we have changed since we were born
- Be aware of/ understand how humans change over time
- Be aware of / understand what living things need to live and grow

Stage 1: Show an awareness	Stage 2: Explore	Stage 3: Understand	Stage 4: Know that	Stage 5: Explain
Children can: Show an awareness of plants, seeds, beans and soil.	As before plus, children can: Explore the growth of fast-growing plants such as cress and mustard.	As before plus, children can: Understand that plants grow from seeds by planting beans and sunflowers	As before plus, children can: Know that some plants take a longer time to grow and produce fruit and vegetables. Do this by planting and studying vegetables which grow over a longer period, especially that which flower and produce seeds, completing the cycle.	As before plus, children can: Explain the growth of vegetables which grow over a longer period, especially those which reproduce using runners, tubers etc
Show an awareness of members of their family	Explore images of themselves and others as babies	Understand that they were a baby	Know that humans change over time - Recognise that others were once babies and that they (and siblings etc) will grow up and change	Explain how humans change over time
Show an awareness of representations of parent and baby animals, including eggs etc. Show an awareness of the real-life cycle of butterflies and other wildlife	Explore the life cycle of butterflies and other wildlife	Understand by matching animals to their young, where young and adults look similar (no metamorphosis)	Know that different animals have different life cycles and be able to order the life cycles of animals such as frog, butterflies, birds and humans	Explain about a basic life cycle (butterfly/ frog) Explain that all living things (Plants and animals) change as they grow Explain what living things (plants and animals) need to live and grow

Light and Sound

- Talk about the differences between materials and changes they notice.
- Explore how you can shine light through some materials, but not others.
- Investigate shadows.
- Colours and colour mixing

• Dark and light • Loud and quiet				
Stage 1: Show an awareness	Stage 2: Explore	Stage 3: Understand	Stage 4: Know that	Stage 5: Explain
Children can	As before plus, children can:	As before plus, children can:	As before plus, children can:	As before plus, children can:
Show an awareness of a range of light sources and reflectors/ mirrors	Explore a range of light sources and reflectors/ mirrors	Understand that some objects are light sources	N/A	Explain that we see objects when light bounces off them and into our eyes Explain the difference between light sources and light reflectors.
Show an awareness of a range of transparent, translucent and opaque materials Show an awareness of shadows	N/A	Understand how shadows can be made and changed Understand the difference between light and dark	Know which materials create the best shadows.	Explain that a shadow is created when light is blocked by an opaque material (translucent materials are less effective)
N/A	N/A	Explore the effect of colour mixing	Know how to mix new (secondary) colours	Explain how to create tertiary colours and hues
Show an awareness of sound makers including instruments	Explore how sounds can be created	N/A	Know that different materials can stop sound entering our ears	Explain that we hear when sound enters our ears and that sound can be conducted or insulated.
Show an awareness of a range of sounds, loud quiet, high, low, vibrations	Explore sound, creating high, low, loud and quiet sounds	Understand the difference between different sounds, loud and quiet etc. Understand how to intentionally make different sounds – loud or quiet etc.	N/A	N/A
Show an awareness of actions & respond, as if to request a repeated action/ get a desired effect	Explore actions to get a desired effect	Understand how to refine actions to get a desired effect	N/A	N/A
N/A	N/A	N/A	Know that sounds are made when objects vibrate (guitar strings, rice on a drum)	Explain that sounds are made when objects vibrate
Forces – Magnetism and floating and sinking • Be aware of/ understand that magnetism is a force • Be aware of/ understand that not all materials are magnetic • Be aware of/ understand that magnets have poles and will attract or repel other magnets				

• Be aware of/ understand that objects float or sink • Be aware of/ understand that there are factors which affect floating and sinking				
Stage 1: Show an awareness	Stage 2: Explore	Stage 3: Understand	Stage 4: Know that	Stage 5: Explain
Children can: Show an awareness of magnetic toys	As before plus, children can: Explore magnetic toys	As before plus, children can: N/A	As before plus, children can: Know some everyday uses of magnets	As before plus, children can: N/A
Show an awareness of magnetic attraction and repulsion	Explore magnetic and non-magnetic materials Explore actions using magnets to get a desired effect	Understand that magnets come in different strengths, sizes and shapes Understand cause and effect, refining actions to get the desired effect.	Know that some items are magnetic and some are not and sort them accordingly	Explain that not all metals are magnetic
N/A	N/A	Understand the effect of a magnet on iron filings or within toys	Know that there is attraction and repulsion between 2 magnets	Explain that magnets have 2 poles Explain how they can predict whether 2 magnets will attract or repel each other, depending on which poles are facing
Show an awareness of items which float or sink	Explore floating and sinking with different items	Understand objects sink or float and sort them accordingly.	Know how to record if objects float or sink	Explain how objects can be changed to make them float or sink
Show an awareness of actions & respond, as if to request a repeated action/ get a desired effect	Explore and create an item such as a toy boat that floats	Understand that objects sink or float select an item from a collection when asked to bring something that will float or sink	Know that items float or sink and be able to predict if an item will float or sink	Explain the factors affecting floating and sinking Explain and test their predictions, and record of their predictions were correct or not.
Animal Families • Be aware of/ be able to name a range of animals and match them to their young • Be aware of/ understand that we are like animals who have live babies; other animals lay/ hatch from eggs • Be aware of/ understand what makes a family & that there are different types of family • Be aware of different types of animal - walk, fly, swim, and body parts – tail, wing, fin etc. fur, feather, scales etc. • Visit a farm and observe animals moving, having babies, touching/ feeling animals or invite animal handlers in.				
Stage 1: Show an awareness	Stage 2: Explore	Stage 3: Understand	Stage 4: Know that	Stage 5: Explain
Show an interest in/awareness of soft toy animals	Explore the animals and their offspring noticing similarities and differences.	Understand that animals and humans have offspring which grow into adults.	Show knowledge of the offspring of humans and a range of different animals through matching offspring to	Explain how insects/animals change (e.g., a caterpillar – butterfly) through lifecycle diagrams. Through creating a sequence for the animals' lifestyle.

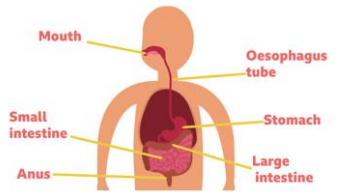
		Understand familiar animals & their offspring through matching young to the adult.	the adult (these animals should be rare animals).	
Show an interest in/awareness of animal eggs/offspring.	Explore the natural world around them making observations of animal offspring (frogspawn, hatching eggs)		Show knowledge that not all animals reproduce in the same way (eggs vs live babies) through sorting animals into the categories of which how they reproduce.	Explain the gestation period during which the foetal development takes place in the uterus for humans and a range of mammals.
Show an interest/awareness of different textures relating to different types of animals.	Explore the different types of animals, noticing the similarities and differences (e.g., a dog has fur and a bird has feathers)	Understand that animals have different functions (walk, fly and swim). Children will show this through categorising a range of animals into these functions.	Show knowledge of different types of animals through categorising the body parts based on its function (a fish needs a fin to be able to swim).	Explain that animals, both locally and globally, belong to different animal classes. Through identifying different animal groups (mammal, reptiles, amphibians, invertebrates, fish, and birds). Explain the basic needs of animals, including humans, for survival (water, food, and air).
Show an awareness of and show interest in common animals.	Explore the natural world around them making observations of animals. noticing the similarities and differences (e.g., a dog has 4 legs, a spider has 8 legs).	Identify and name a variety of common animals. Children can name the parts of an animal.	Show knowledge of common animals and how their diet categorises them (carnivore, herbivore, and omnivore).	

Food & digestion

- Be aware of/ understand the importance of food hygiene.
- Identifying what should and shouldn't be eaten/ put into mouths.
- Tasting healthy foods
- Where food comes from – linking to the growing area.
- Eating from plates etc, not from the floor, bin etc.
- Be aware of/ be able to name body parts related to eating & digestion.
- Be aware of/ understand what happens to food when we eat.
- Be aware of/ understand what makes a healthy balanced diet.
- Be aware of/ understand digestive system

Stage 1: Show an awareness	Stage 2: Explore	Stage 3: Understand	Stage 4: Know that	Stage 5: Explain
Children can:	As before plus, children can:	As before plus, children can:	As before plus, children can:	As before plus, children can:

Show an awareness of water and soap.	Explore a range of different soaps to wash their hands with.	Understand that we need to wash our hands before preparing food. Understand that we need to wash fruit and veg before eating it.	Show knowledge of the need to wash our hands before preparing food as we may have germs on our hands. Show knowledge of the need to wash fruit and veg before eating it to get rid of any bacteria/germs.	Explain what happens if we do not follow food hygiene (we could get really poorly).
Show an awareness of objects around them	Explore items which can be eaten. (bread, fruit, yoghurt). Explore items which are not meant for our mouths (sticks, leaves, mud, playdough)	Understand that some things shouldn't be put in our mouths. Children can categorise these items into should and shouldn't be put in our mouths.	Explain of why we shouldn't put certain things in our mouth. (i.e. may make us poorly, we could choke on the item).	
Show an awareness of food.	Explore a range of healthy foods, this should involve naming the foods, exploring the tastes, textures, and smells.	Understand that healthy foods should be eaten regularly and some foods should only be eaten as treats	Show knowledge of a range of different healthy foods and categorise what is healthy and what isn't.	Explain how eating healthy foods positively impact our bodies but we should only consume some in moderation. Explain what a balanced diet is.
Show an awareness of outdoor growing areas and where we may plant vegetables (soil).	Explore a growing area where plants are typically grown. Explore the textures of the soil.	Understand that food does not just come from a shop and that humans can grow their own food.	Show knowledge of a range of different healthy foods which can be grown by humans.	Explain that if a seed is planted something healthy will grow. Explain how to plant a seed and watch as it grows.
Show an awareness/interest in using cutlery, cups, and plates.	Explore different ways to serve food in items such as plates, bowls, cups.	Understand that the floor is dirty.	Show knowledge of germs on surfaces that have not been cleaned so we should not eat off them. Show knowledge of what a bin's purpose is and that once food is placed inside it, it is no longer safe to eat it.	N/A
N/A	N/A	N/A	Show knowledge of a number of vital organs involved in the digestive system. i.e. mouth and stomach.	Explain the roles of all the vital organs involved in the digestive system. i.e. Oesophagus tube, small intestine, large intestine, and anus. - Children to be able to label all the vital organs.

				
N/A	N/A	N/A	Show knowledge of the mouth having teeth and saliva that helps to mash up our food. Show knowledge of the stomach having acid that helps to kill germs which breaks down our food.	Explain how the small intestine takes out the bits of food that the body can use. i.e. vitamins and proteins. Explain how the large intestine takes water out of the food for the body to use. Explain that anything that is not useful for the body is passed through the anus into the toilet.
N/A	N/A	Understand that there is healthy and unhealthy food.	Show knowledge of the recommended portion of fruit and veg that is needed to maintain a healthy diet. Show knowledge of the importance of water in our diet. - Eyes - Kidneys - Body temperature - Digestive system - Muscles and joints	Explain what the different food groups are and the right amount we should eat to form a balanced diet. Explain that there are types of foods which protect us from illness and to help us grow. i.e. vitamins, minerals to help our bones, eyes and teeth stay strong and healthy. Explain how the which types of food help which body parts. i.e. carrots (vitamin A) help our eyes. Children to categorise these.
Habitats for living •Be aware of/ be able to name and/ or match different animal & human homes •Be aware of/ understand how animals adapt to different environments •Explore/ Be aware of/ understand how different construction materials can keep us/ animals warm or dry •Be aware of/ understand food chains in that habitat				
Stage 1: Show an awareness	Stage 2: Explore	Stage 3: Understand	Stage 4: Know that	Stage 5: Explain

Children can: Show an awareness of local habitats, spinney, etc.	As before plus, children can: Explore animals in a local environment, such as the local park	As before plus, children can: Children to observe animals in a different environment, such as the arboretum	As before plus, children can: Show an awareness of/ be able to name and/ or match different animal & human homes. Children to observe animals in a different environment, such as Bradgate Park	As before plus, children can: Explain in greater detail a specific habitat (jungle/ polar/ desert etc.) Explain how to use ICT to research facts about habitats and diets of animals Children to observe animals in a different environment, such as Watermead
Show an awareness of using a range of senses to explore different habitats.	Explore animals from a wider range of habitats. i.e. sand with desert animals and fake snow with polar animals.	Understand that not all animals have the same habitat. E.g. Sort animals by their natural habitats, putting a fish into the water tray and a camel into a sand tray.	Know that animals have different adaptations to suit their habitat. E.g. Match body parts (adaptations) to animal bodies. Fins to fish, legs to land mammals etc.	Explain that animals adapt to different environments., e.g., arctic fox has thick fur and small ears yet a fennec fox has thin fur and big ears.
Show an awareness of habitats set up by adults containing different animals and plants - Fake grass with cows and horses on, toy fish in a fish tank or water tray		Understand that animals can be sorted into those that live in hot and cold environments	Know that different animals live in/ construct different homes and use construction/junk modelling to create homes/shelters for different animals, such as a mouse and a bird	Explain how the how different construction materials can keep us/ animals warm or dry
Show an awareness that animals eat, feed the guineas and chickens	Explore animals as they eat.	Understand that different animals eat different food E.g. Feed the guinea pigs and chickens.	Know that different animals eat different foods, with examples – rabbit to carrots etc. Feed local wildlife – wild birds and mini-beasts.	Explain about food chains in different habitats.
The Seasons & Weather • Be aware of/ be able to name weather & the seasons • Be aware of/ understand that we have 4 seasons with different characteristics/ weather/ events • Be aware of/ understand what we wear to be healthy & comfortable in different weather/seasons • Be aware of/ be able to identify seasonal changes in our environment • Understand how weather can affect how we live/ what happens in extreme weather				
Stage 1: Show an awareness	Stage 2: Explore	Stage 3: Understand	Stage 4: Know that	Stage 5: Explain
Children can: Show an awareness of the natural world around them	As before plus, children can:	As before plus, children can:	As before plus, children can:	As before plus, children can: Explain the changes that occur throughout the seasons.

	Explore objects of reference relating to weather (i.e. ice = winter, water spray =rain)	Understand that the items are associated with the seasons (i.e. children can link ice to winter).	Know that weather is not a constant and often changes throughout the day.	
Show an awareness of/interest in seasonal events.	Explore items relating to the seasonal events (i.e. pumpkin = Halloween, tinsel = Christmas)	Understand that the exploratory items are associated with seasonal events	Know that there are different seasonal events in all four seasons (i.e. winter =Christmas, autumn = Halloween, summer = summer holidays, spring = Easter).	Explain that different parts of the world experience seasonal events when the season is different to ours. (i.e. Australia experiences Christmas during their summer season).
Show an awareness of appropriate clothing in each season (i.e. puts coat on in winter, takes coat off when they feel too warm).	Explore and name items of clothing associated with each season.	Understand that we wear coats in winter and not in summer. (children to match common seasonal items to the right season).	Know that there are clothing items that shouldn't be worn in certain seasons as this can make us ill. – adult show a season and an item of clothing, children to say yes or no to weather we can wear the clothing in that particular season).	Explain that if we don't wear appropriate clothing in certain seasons, we may get ill (heat stroke, frostbite, UV damage, sunburn). – children can tell the adults what they should wear instead so that they do not get ill (sunscreen).
Show ability to tolerate seasonal changes.	Explore items that change in a cycle throughout the seasons (i.e. explore the changes to leaves)	Understand that in the autumn sunlight is shorter and in the summer sunlight is longer.	Know that the environment changes during each season therefore effecting animals and their habitats.	Explain the changes that occur during the different seasons. (how leaves change throughout the seasons).
Show an awareness/toleration for extreme weather	Explore what happens to ice when it is exposed to too much heat (showing the effects of global warming). Explore objects of reference relating to severe weather conditions (drum for thunder.	Understand that there are extreme weather conditions that we rarely see. – children can name a variety 'snow, thunder, lightning, tornado)	Know that climate change effects everywhere in the world. Know that if it is to rain too many floods may occur and damage people's property.	Explain that the sea level has risen due to the earth getting warmer. Explain how extreme weathers occur. - Snow forming - Thunder and lightening - Hurricanes

Plants

- identify and name a variety of common wild and garden plants, including deciduous and evergreen trees
- identify and describe the basic structure of a variety of common flowering plants, including trees
- observe and describe how seeds and bulbs grow into mature plants
- find out and describe how plants need water, light and a suitable temperature to grow and stay healthy
- Show and explain the concepts of growth, change and decay with natural materials.

Activity Suggestions

- plant seeds and bulbs so children observe growth and decay over time
- observe an apple core going brown and mouldy over time
- Plant seeds and care for growing plants. Understand the key features of the life cycle of a plant
- Plants as homes – trees/ habitats
- Plants we can eat

Stage 1: Show an awareness	Stage 2: Explore	Stage 3: Understand	Stage 4: Know that	Stage 5: Explain
Children can: Show an awareness of plants and trees in outdoor learning areas.	As before plus, children can: Explore a range of plants, flowers and trees during a nature walk.	As before plus, children can: Understand that there are a range of garden plants. Children to name a variety of garden plants (roses, daffodil, sunflower, tulips). Understand that there are a range of wild plants. Children to name a variety of wild plants (bluebells, dandelion, daisies)	As before plus, children can: Know that there are differences between wild plants and garden plants. (Wild plants are not planted by humans).	As before plus, children can: Explain the differences and similarities between evergreen and deciduous trees.
Show an awareness of plants and trees in outdoor learning areas.	Explore the parts of plants in a tuff spot. (Adult to support with language such as 'I can feel the stalk, 'I can see the petals).	Know the different parts of a plant/tree, root, stem and leaves. Children to label a picture of the flower/plant/tree correctly.	Explain the differences and similarities between the structures of plants, flowers and trees. (Trees have trunks and flowers have stems but they both have roots).	
Show an awareness of plants and trees in outdoor learning areas.	Explore round a tuff spot a range of seeds and some soil. Encourage the children to push the seeds into the soil (get some plant pots as well to watch them grow over the next few weeks).	Understand what materials we need to plant our flowers. Children can name these items. - Seeds - Soil - Plant pot Water	Know that plants and flowers have different types of bulbs/seeds. Children to match the bulb/seed to the plant/flower.	Explain the lifecycle of a plant/flower/tree. Children to talk through/sequence visuals on how a seed grows into a flower.

Show an awareness/ acceptance of water, different temperatures, light and fresh air.	Explore a range of visuals (water, air, light, temperatures)	Understand the needs of a typical plant 'flower' - Water - Air Sunlight	Know that different plants have different needs. (Cactus needs a warm climate). – Children can match the plant to the correct climate.	Explain that if plants do not get the correct amount of water, sunlight, air or are kept in the wrong temperatures they will not survive.
Show an awareness of plants and trees in outdoor learning areas.	Explore plants at their different stages (seed, sprouting, fully grown, wilted, dead)	Understand that plants grow and eventually die when not looked after properly. Adult to use language such as 'if a plant is watered it will'	Know that plants experience different stages and look different at various stages of their growth.	Explain that plants get their energy from the sun. (photosynthesis) Explain about plant decomposition (the carbon cycle).

The Senses

- Be aware of/ be able to name body parts related to the senses
- Be aware of/ understand what each sense is and which part of the body controls it
- Explore/ Be aware of/ understand one sense in more detail
- Be aware of/ understand what keeps our body healthy
- Use the senses to explore hot and cold, hard and soft, rough / spiky and smooth and wet and dry

Stage 1: Show an awareness	Stage 2: Explore	Stage 3: Understand	Stage 4: Know that	Stage 5: Explain
Children can: Show an awareness/tolerance of using their senses.	As before plus, children can: Explore a variety of toys which display the body parts responsible for our senses. (e.g. Mr potato head Puppets)	As before plus, children can: Understand that ears help us to hear, eyes help us to see, mouths/tongues help us to taste, the nose helps us to smell.	As before plus, children can: Know the different senses through explaining what they can hear, smell, feel and see.	As before plus, children can: Explain that we can feel more than 1 sense at a time. (I see and hear birds).
Show an awareness of their own body through mirror work.	Explore body parts through songs and games. - Simon says. Head shoulders knees and toes.	Understand which body parts are responsible for each sense through matching sense to body part.	Know which body parts are responsible for each sense. i.e. Children to point to their nose when talking about smell.	Explain that to be able to taste things we need both taste buds and a sense of smell.
Show an interest in/awareness of the daily scent. - Rosemary - Cinnamon - Lemon - Mint	Explore a variety of tuff trays using the 4 different senses. - Water play (touch) - Food tasting (taste)	Understand that some senses create undesirable experiences. - Children to use desired communication style to voice their opinions (like and don't like).	Know that there are four kinds of taste receptors on the tongue – bitter, sweet, salt, and sour (children to categorise a variety of items).	Explain that some people need glasses to help them see. Explain that some people need hearing aids to help them hear.

- Lavender Show an interest in/awareness of messy play. Show an interest in/awareness of a range of sounds. Show an interest in/awareness of objects around them.	- Musical instruments (hear) - Mirror play (see)			
Show an awareness of sounds, tactile items, visual items, and edible items.	Explore a range of sensory items at different extremes. - Loud and quiet - Bright and dull - Sharp and smooth - Hot and cold.	Understand that some senses create undesirable experiences. Children to use desired communication style to voice their opinions (like and don't like).	Know that some sense experiences can hurt some body parts. - Loud noises can hurt our ears. - Bright lights can hurt our eyes. - Sharp items can hurt our skin. - Hot items can hurt our mouths	Explain how we can look after the body parts responsible for our senses. - Turning music down to protect our ears. - Wearing sunglasses to protect our eyes from the sun. - Being extra careful when handling sharp objects (not running with scissors) -Blowing our food before eating It.
Show an awareness of/ interest in touching objects around them.	Explore a range of tactile items with a range of sensory differences. (Hot & cold; Hard & soft Rough & smooth; Wet & dry)	Understand that some items feel nice, and some don't. Children to use desired communication style to voice their opinions.	Know that the items feel a certain way when touching the item, i.e. the pineapple is spikey, the radiator is hot.	Explain why items feel a certain way i.e. the water is hot because it is from the hot tap, the soil is wet because it has rained)