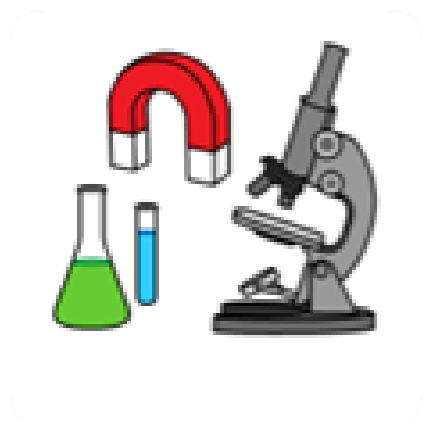




**Stoneferry Science**  
Planning Document  
Year 1



# Autumn Modules

Our Changing World: Animal Antics ( <b>Biology</b> )	Looking at animals ( <b>Biology</b> )	Our Changing World: Sensing Seasons ( <b>Earth and Space</b> )
<p>Key Concepts Delivered - <b>Biology</b></p> <ul style="list-style-type: none"> <li>Living things are special collections of matter that reproduce, use energy and grow.</li> <li>Animals break down food and are ultimately dependant on green plants for energy</li> </ul>	<p>Key Concepts Delivered - <b>Biology</b></p> <ul style="list-style-type: none"> <li>Living things are special collections of matter that reproduce, use energy and grow.</li> <li>Animals break down food and are ultimately dependant on green plants for energy</li> </ul>	<p>Key Concepts Delivered - <b>Biology</b></p> <ul style="list-style-type: none"> <li>I can explain how the weather changes throughout the year and name the seasons (ink to Geography)</li> </ul>
<p><b>National Curriculum Objectives</b></p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.</li> </ul>	<p><b>National Curriculum Objectives</b></p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.</li> </ul>	<p><b>National Curriculum Objectives</b></p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Observe changes across the four seasons. (geography link)</li> <li>Observe and describe weather associated with the seasons and how day length varies. (geography link)</li> </ul>
<p><b>Relevant Prior Learning:</b></p> <ul style="list-style-type: none"> <li>Understand the need to respect and care for the natural environment and all living things.</li> <li>Understand the difference between plants and animals through observation.</li> </ul>	<p><b>Relevant Prior Learning</b></p> <ul style="list-style-type: none"> <li>Understand the need to respect and care for the natural environment and all living things.</li> <li>Understand the difference between plants and animals through observation.</li> </ul>	<p><b>Relevant Prior Learning</b></p> <ul style="list-style-type: none"> <li>Name and identify some different types of weather.</li> </ul>
<p><b>Expected Outcomes:</b></p> <ul style="list-style-type: none"> <li>The children will be able to name a range of common animals including, fish, amphibians, reptiles birds and mammals.</li> <li>The children will be able to name a range of animals in the school environment and comment on how certain animals (snails) change over time.</li> </ul>	<p><b>Expected outcome</b></p> <ul style="list-style-type: none"> <li>The children will be able to name a range of common animals including, fish, amphibians, reptiles birds and mammals.</li> <li>The similarities and differences between the bodies of different animals.</li> <li>How animals move and what they eat (herbivore, omnivore and carnivore).</li> </ul>	<p><b>Expected outcome</b></p> <ul style="list-style-type: none"> <li>The children understand that the season is autumn.</li> <li>They understand the clothing appropriate for the season.</li> <li>The children will know what the weather is like in Autumn/Winter</li> <li>Understand what different types of weather are.</li> </ul>

## Our Changing World: Animal Antics (Biology)

Module	Snap Science recommended lessons	National Curriculum Objectives	Expected outcome	Vocabulary	Suggested Resources
Our Changing World: Animal Antics	Lesson 1: What animals live around our school?	<p><b>Enquiry Type</b> - Noticing patterns.</p> <p><b>LO:</b> To identify different animals seen around school at different times of the year.</p> <p><b>Working Scientifically:</b> Gathering and recording data to help in answering questions</p>	Name and identify a range of animals on the school grounds.	butterfly, fly, wasp, bee, frog, bird, blackbird, robin, pigeon, starling, sparrow, spider, woodlice, worm, ant, ladybird, fly, squirrel, fox, dogs, hedgehog	Animal identification guides
Our Changing World: Animal Antics	Lesson 2: How many birds visit our feeding station?	<p><b>Enquiry Type</b> - Noticing patterns</p> <p><b>LO:</b> To describe and identify birds that visit our bird feeders at different times</p> <p><b>Working Scientifically:</b> Using observations and ideas to suggest answers to questions</p>	Recording which birds come and visit a bird feeding station.	names of birds, for example, blackbird, house sparrow, starling, seagull, robin, thrush, wagtail, blue tit, chaffinch, great tit, collared dove, magpie, wood pigeon; bird table, feeder, nuts, seed (and names of types of seeds), fat ball	bird identification guides, bird books, bird table, bird feeders, seed, other types of food for feeding bird
Our Changing World: Animal Antics	Lesson 3: How do snails change over time?	<p><b>Enquiry Type</b> - Observing changes over a period of time</p> <p><b>LO:</b> To describe the needs of snails and what happens as they change and grow.</p> <p><b>Working Scientifically:</b> Observing closely, using simple equipment</p>	Understanding how a snail changes over time, storyboarding the changes.	snail, shell, foot, slime, slimy, striped, stripy, ridged, spiral, terrarium, dandelion, feed, food, leaves, lettuce	secondary sources of information, digital cameras, magnifiers, 'talk postcards', sound recorders, terrarium, soil to cover base (from pet shop), snails – either collected from locality or from pet supplier

## Looking at Animals (Biology)

Module	Snap Science recommended lessons	National Curriculum Objectives	Expected outcome	Vocabulary	Suggested Resources
Looking at animals	Lesson 1: Who's who in the animal world?	<p><b>Enquiry Type</b> - Grouping and classifying</p> <p><b>LO:</b> To identify and name a variety of common animals.</p> <p><b>Working Scientifically:</b> Identifying and classifying</p>	To name a range of different animal from the animal kingdom.	names of animals, common body parts and animal groups, including zebra, lion, lizard, snake, giraffe, elephant, deer, warthog, camel, brown bear, gorilla, goat, leopard, racoon, wildebeest, ostrich, chicken, salmon, toad, horse, tiger, parrot, angel fish, frog, rabbit, cow, crocodile, owl, clown fi h, newt, fox, legs, wings, eyes, skin, fi ns, tail, fish, am-	information books, animal posters and identification keys/ guides (particularly less familiar animals), sticky notes or labels
Looking at animals	Lesson 2: How are animals' bodies different?	<p><b>Enquiry Type</b> - Finding things out using secondary sources of information</p> <p><b>LO:</b> To describe and compare the body structures of different kinds of animals .</p> <p><b>Working Scientifically:</b> Observing closely using simple equipment</p>	Understand how reptiles and amphibians are different and know some of their features.	Names and descriptions of amphibian and reptilian body parts, including webbed feet, legs, smooth skin, big eyes and mouth, nose, tail, scaly skin, legs, claws on feet, tail, long tongue, big eyes and mouth, big teeth	Secondary sources of information, including information books, photographs, video clips, modelling clay, matchsticks, lolly sticks, pipe cleaners, scraps of fabric and card, scissors and modelling tools
Looking at animals	Lesson 5: How do different animals move?	<p><b>Enquiry Type</b> - Grouping and classifying</p> <p><b>LO:</b> To describe and compare how different kinds of animals move</p> <p><b>Working Scientifically:</b> Observing closely using simple equipment.</p>	To describe and understanding how animals move using different vocabulary.	Quality reference books and web-based resources that children can use to find out about how animals move; video or digital camera, talk tool (optional)	jump, hop, leap, climb, clamber, swing, pad, pace, prowl, slither, canter, pounce, spring, flap, fly, fl utter, flop, splash, splosh, dive, swim, slither, slide

## Looking at Animals (Biology)

Module	Snap Science recommended lessons	National Curriculum Objectives	Expected outcome	Vocabulary	Suggested Resources
Looking at animals	Lesson 6: Whose food is this?	<p><b>Enquiry Type:</b> Grouping and classifying</p> <p><b>LO:</b> To recognise that some animals mainly eat meat (carnivores), some only eat plant materials (herbivores) and some eat both (omnivores)</p> <p><b>Working Scientifically:</b> Identifying and classifying</p>	To understand the terms carnivores, herbivores and omnivores.	food, eat, healthy, meat, insects, fish, vegetables, plants, trees, grass, seeds, nuts, carnivore, herbivore, omnivore, cow, horse, rabbit, mouse, squirrel, elephant, caterpillar, goat, sheep, fox, dragonfly, barn owl, otter, wolf, lion, tiger, bear, frog, chicken, badger, hedgehog,	animal food bowls containing, for example, lettuce and carrots, bird seed, earthworms, acorns, hazelnuts or other nuts in shells, fish, grass; sound recorders, digital cameras, secondary sources of information about animals and their diets, hoops or circles for Venn dia-
Looking at animals	Lesson 7: Which animals are busy at night?	<p><b>Enquiry Type:</b> Finding things out using secondary sources of information</p> <p><b>LO:</b> To describe how the lives of nocturnal animals differ from those of animals seen during the daytime</p> <p><b>Working Scientifically:</b> Identifying and classifying</p>	Understand the characteristics of nocturnal and diurnal animals.	night, nocturnal, senses, sight, smell, sonar, food, feeding, roost, sett, burrow, tunnel, nest, names of nocturnal animals, for example, hedgehog, fox, bat, badger	glue, scissors, books with images of different animals (if needed for Challenge 1), secondary sources of information to find out about animals that are nocturnal
Looking at animals	Lesson 8: Which animals live in our homes with us?	<p><b>Enquiry Type -</b> Grouping and classifying</p> <p><b>LO:</b> To identify, name and group the pets that children in our class have at home</p> <p><b>Working Scientifically:</b> Gathering and recording data to help in answering questions .</p>	Know what pets classmates have at home, be able to tell what they are and put these animals into groups.	fish, amphibian, reptile, bird, mammal, names of pets (for example, goldfish, tropical fish, budgerigar, parrot, rabbit, gerbil, hamster, mouse, chinchilla, lizard, snake, dog, cat), parts of animal bodies (for example, tail, paws, legs, feet, nose, ears, eyes, feather, fur, scales, fins)	photographs of children's pets (or pets that they know well), sticky notes, counters (optional), glue sticks

## Looking at Animals (Biology)

Module	Snap Science recommended lessons	National Curriculum Objectives	Expected outcome	Vocabulary	Suggested Resources
Looking at animals	Lesson 10— Who cares for animals when they are sick?	<p><b>Enquiry Type:</b> Grouping and classifying.</p> <p><b>LO:</b> To describe how an animal is cared for at an animal hospital or vet's surgery</p> <p><b>Working Scientifically:</b> Identifying and classifying</p>	Understand the role of an animal hospital and vet's in the role of looking after animals.	soft toy animals (including pets and familiar wildlife such as fox, hedgehog or rabbit), pet care equipment, 'play' veterinary equipment (including stethoscope, boxed medicines, syringe, bandages, veterinary overalls/ scrubs, disposable gloves, head cover), large table, shelves or cupboard, photographs of animal	Names of animals featured in role play area, hospital, surgery, nurse, vet, patient, care, look after, treat, accident, injury, injured, illness, sick, medicine, bandage, stethoscope, gloves, face mask, overalls
Looking at animals	Lesson 11: Who is on the menu today?	<p><b>Enquiry Type:</b> Grouping and classifying.</p> <p><b>LO:</b> To compare the food that carnivores, herbivores and omnivores eat</p> <p><b>Working Scientifically:</b> Identifying and classifying</p>	Through the story of the Billy Goats Gruff understand the food carnivores, omnivores and herbivores.	goat, beard, hoof, hooves, horns, troll, ugly, big eyes, big pointed ears, big nose, big mouth with sharp teeth, comparative language (for example, small, medium, big, smallest, biggest), carnivore, herbivore, omnivore, dinner, meal, food, meat, lamb, beef, ham, chicken, vegetables, plants, trees, bushes, grass,	large sheets of paper, drawing pens and pencils, glue sticks, supermarket leaflets, some real food options (if possible) that children can offer to the troll

## Our Changing World: Sensing Seasons (Biology)

Module	Snap Science recommended lessons	National Curriculum Objectives	Expected outcome	Vocabulary	Suggested Resources
Our Changing World: Sensing Seasons	Lesson 1: How do the changing Seasons affect me?	<p><b>Enquiry Type:</b> Observing changes over a period of time .</p> <p><b>LO:</b> To identify how the seasons determine how ‘our changing world’ varies, and to describe the impact that seasonal change has on our lives .</p> <p><b>Working Scientifically:</b> Using observations and ideas to suggest answers to questions.</p>	Know the names of the seasons and the clothing associated with autumn/winter.	season, autumn, winter, spring, summer, names of the months of the year, temperature, hot, warm, cold, cool, freezing, frosty, wet, dry, sunny, cloudy, showery, stormy, windy, breeze, gale (and other words to describe the weather), hat, gloves, mittens, scarf, muffler, ear muffs, boots, coat (and other items of clothing and names of fabrics that suit specific weather conditions), thick, thin, woolly, furry, warm, waterproof	Samples of fabrics and other materials appropriate to season, example items of clothing related to the season, glue sticks, scissors
Our Changing World: Sensing Seasons	Lesson 2: What can we see and hear that shows us the seasons are changing? (part 1)	<p><b>Enquiry Type:</b> Observing changes over a period of time.</p> <p><b>LO:</b> To observe, describe and compare the changing seasons of the year .</p> <p><b>Working Scientifically:</b> Gathering and recording data to help in answering questions .</p>	Use the senses on a scavenger hunt to know how the seasons change.	mini sound recorders such as ‘sound buttons’ or ‘talking cans’, digital cameras, electronic microscopes, hand lenses or magnifiers, flower press, double-sided sticky tape, laminator (to seal flower and leaf samples when semi-dry)	Season and month names, season, change, names of plants, trees and animals that they have encountered during previous lessons; Our Changing World diaries (if required)
Our Changing World: Sensing Seasons	Lesson 3: What can we see and hear that shows us the seasons are changing? (part 2)	<p><b>Enquiry Type:</b> Observing changes over a period of time.</p> <p><b>LO:</b> To identify how ‘our changing world’ varies depending on the season by examining the evidence collected, and to describe the impact that seasonal change has on animals .</p> <p><b>Working Scientifically:</b></p>	Create a seasonal window to understand what they can see in the season of autumn/ winter (derived from scavenger hunt)	season and month names, season, changes, evidence, similar, different, group, compare, names of plants, trees and animals that children have encountered in previous lessons; rain/ rainy, sun/sunny, wind/ windy, snow/snowy, shower, drizzle, puddle, breeze, gale, storm, thunder, lightning, sleet, frost, fog, mist,	mini sound recorders such as ‘sound buttons’ or ‘talking cans’, digital cameras, electronic microscopes, hand lenses or magnifiers, flower press, double-sided sticky tape, laminator (to seal flower and leaf samples when semi-dry)

# Spring Modules

Using our Senses ( <b>Biology</b> )	Materials ( <b>Chemistry</b> )
<p>Key Concepts Delivered - <b>Biology</b></p> <ul style="list-style-type: none"> <li>Identify, name, draw and label basic parts of the human body and say which part of the body is associated with each sense.</li> <li><b>Organisms require a supply of energy and materials:</b> Living things are special collections of matter that reproduce, use energy and grow. Food provides materials and energy for life and growth. (in relation to the senses )</li> </ul>	<p>Key Concepts Delivered - <b>Chemistry</b></p> <ul style="list-style-type: none"> <li>The arrangement, movement and types of building blocks of matter, and the forces that hold them together/push them apart, explain all the properties of matter (eg: hot/cold, soft/hard, light/heavy etc...)</li> </ul>
<p><b>National Curriculum Objectives</b></p> <p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>Identify, name, draw and label basic parts of the human body and say which part of the body is associated with each sense .</li> </ul>	<p><b>National Curriculum Objectives</b></p> <p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>To identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock.</li> <li>To describe the simple physical properties of a variety of everyday materials.</li> <li>To compare and group together a variety of everyday materials on the basis of their simple physical properties .</li> </ul>
<p><b>Relevant Prior Learning:</b></p> <ul style="list-style-type: none"> <li>Name my 5 senses (similarity and difference)</li> <li>Explain what my 5 senses are (similarity and difference)</li> </ul>	<p><b>Relevant Prior Learning</b></p> <ul style="list-style-type: none"> <li>Explore collections of materials and talk about similarities and differences (similarity and difference)</li> <li>Talk about the differences between materials and talk about the changes I see (cause and consequence)</li> </ul>
<p><b>Expected Outcomes:</b></p> <ul style="list-style-type: none"> <li>To identify the basic parts of the human body.</li> <li>To be able to recognise basic part of the human body by name.</li> <li>To label the basic parts of the human body.</li> <li>To understand what sense is associated with which part of the human body.</li> <li>To understand how our senses are used.</li> </ul>	<p><b>Expected outcomes</b></p> <ul style="list-style-type: none"> <li>To know, name and label various everyday materials and exactly what they are made from i.e. wood, plastic, glass, metal, water and rock.</li> <li>To be able to label and name the physical properties i.e. hard, soft, brittle etc</li> </ul>



## Using our Senses (Biology)

Module	Snap Science recommended lessons	National Curriculum Objectives	Expected outcome	Vocabulary	Suggested Resources
Using Our Senses	Lesson 1: Is everyone's body the same?	<p><b>Enquiry Type:</b> Grouping and classifying.</p> <p><b>LO:</b> To identify, name and compare parts of our bodies.</p> <p><b>Working Scientifically:</b> Asking simple questions and recognising that they can be answered in different ways.</p>	To draw and label basic parts of my body and know what they are.	parts of the body (for example, head, neck, arms, elbows, hands, legs, knees, foot/feet, face, ears, eyes, nose, hair, mouth, teeth), comparative language (for example, tall, taller, short, shorter, big, bigger, small, smaller)	digital cameras, magnifiers, mirrors, large sheets of paper or a roll of lining paper, display paper or wall-paper, coloured chalks or wax crayons, glue sticks or tape, rulers, large (A3 or A4) pieces of card and marker pens (if no IWB)
Using Our Senses	Lesson 2: What differences can our tongues taste?	<p><b>Enquiry Type:</b> Carrying out simple comparative and fair tests</p> <p><b>LO:</b> To describe, compare and group different edible materials by using the sense of taste</p> <p><b>Working Scientifically:</b> Identifying and classifying</p>	To describe and compare different foods eaten, using words such as sour and sweet to describe their taste.	taste, tongue, flavour, sweet, salty, sour, bitter, sharp, tingly, fizzy, milky	Blindfolds or scarves to cover eyes, food stuffs to taste (for example, milk, salt, sugar, orange rind, yeast extract spread, honey, syrup, vinegar, lemon juice, orange squash, natural yoghurt, jam, soy sauce, cheese, mint sweet, dark chocolate, pickled gherkin), small containers, disposable teaspoons, talk buttons
Using Our Senses	Lesson 3: What can we taste using our sense of hearing?	<p><b>Enquiry Type:</b> Grouping and classifying</p> <p><b>LO:</b> To identify, compare and group the sounds collected during a sound walk.</p> <p><b>Working Scientifically:</b> Identifying and classifying</p>	Recall and recognize a range of sounds and what they are after going on a sound walk.	names of sound sources (for example, buzzer, doorbell, radio, tocker timer, bird song, wind blowing, car horn, traffic noise), comparative language (for example, louder/ softer, loud, quiet, high, low), ear, hear, noisy, bang, crash, whistle, buzz, ring	sound recorders, sound sources, clipboards

## Using our Senses (Biology) / Everyday Materials (Chemistry)

Module	Snap Science recommended lessons	National Curriculum Objectives	Expected outcome	Vocabulary	Suggested Resources
Using Our Senses	Lesson 4: How can we explore the world using our sense of touch?	<p><b>Enquiry Type:</b> Carrying out simple comparative and fair tests.</p> <p><b>LO:</b> To describe how our sense of touch helps us to learn about the world around us.</p> <p><b>Working Scientifically:</b> Using observations and ideas to suggest answers to questions.</p>	Compare textures and be able to describe and object using their sense of touch (from a feely bag).	touch, feel, rub, pinch, prod, sensitive, sense, parts of the body that might be used to touch (for example, hands, fingers, feet, skin), words to describe textures (for example, rough, smooth, bumpy, wrinkled, grooved, shiny, smooth, soft, hard, crunchy, slippery, slimy)	feely feet containers and feely bags, talk buttons or similar sound recorders, microwaveable warmers or other warm objects, microwave (if possible)
Using Our Senses	Lesson 6: How do we use our senses to learn more about the world around us?	<p><b>Enquiry Type:</b> Grouping and classifying</p> <p><b>LO:</b> To describe how our senses help us to find out about the world.</p> <p><b>Working Scientifically:</b> Using observations and ideas to suggest answers to questions</p>	To use sensing stations to identify and describe objects. Identify which sense was used to name the object.	senses, taste, hear, hearing, smell, touch, touching, see, seeing, sight, tongue, mouth, ears, nose, body, hand, fingers, skin, eyes	blindfolds or scarves to cover eyes (enough for one between two), plastic spoons for taste test
Everyday materials	Lesson 1 : What material is this? Part 1	<p><b>Enquiry Type:</b> Grouping and classifying</p> <p><b>LO:</b> To identify and name three everyday materials</p> <p><b>Working Scientifically:</b> Identifying and classifying</p>	Identify objects made out of wood, metal and plastic. Sort objects into wooden, metal and plastic groups.	materials, wood, plastic, metal	wood offcuts: small pieces of plank-ing, blocks, dowelling; artefacts and toys made from wood; metal samples or small ingots of metal; objects and toys made from metal; corrugated plastic sheet to show basic plastic and objects and toys made from plastic; sorting hoops with labels 'wood', 'metal' and

## Everyday Materials (Chemistry)

Module	Snap Science recommended lessons	National Curriculum Objectives	Expected outcome	Vocabulary	Suggested Resources
Everyday materials	Lesson 2: What material is this? Part 2	<p><b>Enquiry Type:</b> Grouping and classifying</p> <p><b>LO:</b> To identify and name four everyday materials.</p> <p><b>Working Scientifically:</b> Observing closely using simple equipment</p>	Identify objects made out of glass, rock and brick. and identify water found in different places/ sorted into groups.	materials, water, rock, brick	objects made of glass, bricks, rock samples, water and cups, pictures of the four materials cut out of magazines, big book, digital camera, sorting hoops with labels 'brick', 'glass' and 'rock', sticky notes, magnifiers, digital magnifier connected to the IWB
Everyday materials	Lesson 5: What material is it made of?	<p><b>Enquiry Type:</b> Grouping and classifying</p> <p><b>LO:</b> To recognise that most objects are made from more than one material.</p> <p><b>Working Scientifically:</b> Identifying and classifying.</p>	Identify and name different materials and can sort objects according to the materials from which they are made. Make a simple record of what materials the objects are made from.	wood, wooden, metal, plastic, rock, brick, glass, fabric, water	collections of objects made from combinations of the basic list of materials from Lessons 1–4, that is, wood, metal, plastic, glass, rock, brick, water, paper; fabric, foil, small cardboard tubes from sweet packaging, lamps (the type used in electrical circuit work in KS2), metal spiral bound books, cell holders, small spice jars with plastic lids, labelled sorting hoops, sticky notes
Everyday materials	Lesson 6 : How do we use our senses to find out about world around us?	<p><b>Enquiry Type:</b> Grouping and classifying</p> <p><b>LO:</b> To describe how our senses help us to find out about the world.</p> <p><b>Working Scientifically:</b> Using observations and ideas to suggest answers to questions</p>	an make observations without using my eyes. • I can identify different objects and materials using my senses of hearing, touch, taste and	senses, taste, hear, hearing, smell, touch, touching, see, seeing, sight, tongue, mouth, ears, nose, body, hand, fingers, skin, eyes	blindfolds or scarves to cover eyes (enough for one between two), plastic spoons for taste test

## Our Changing World: Everyday Material (Chemistry)

Module	Snap Science recommended lessons	National Curriculum Objectives	Expected Outcome/s	Vocabulary	Suggested Resources
Everyday materials	Lesson 7 : What's it like?	<p><b>Enquiry Type:</b> Grouping and classifying</p> <p><b>LO:</b> To identify and describe the physical properties of a selection of materials</p> <p><b>Working Scientifically:</b> Observing closely using simple equipment</p>	Describe what materials look like. And how they feel.. Sort materials according to how they look and feel.	hard, soft, rough, smooth, shiny, dull, light, heavy, transparent (or see-through), opaque (or can't see through), properties, harder, lighter, rougher	selection of materials from Lessons 1–4, sorting hoops labelled with property words from Words for physical properties of materials (Resource sheet 1), digital camera, feely bags, trays for Challenge 3 guessing game, a new 'Properties of Materials' big book, glue sticks
Everyday materials	Lesson 8: Does it bend or stretch?	<p><b>Enquiry Type:</b> Grouping and classifying</p> <p><b>LO:</b> To investigate the stretchiness and flexibility of selected material.</p> <p><b>Working Scientifically:</b> Identifying and classifying.</p>	Identify which materials bend and stretch and test how materials bend and stretch.	Stretch, stretchy, stiff, bend, bendy, not bendy, press, squash, twist, shape, hard, soft , flexible, rigid	Modelling clay, pipe cleaners, fabrics that stretch – nylon tights/ socks, leotards, clothes with elastic waistbands, rubber bands; 3-D shapes, paper strips, scissors, selection of objects from previous lessons that do not bend, stretch, squash or twist

# Summer Modules

<b>Our Changing World: Plants (Biology)</b>	<b>Plant Detectives (Biology)</b>	<b>Our Changing World: Sensing Seasons (Earth and Space)</b>
<p>Key Concepts Delivered - <b>Biology</b></p> <ul style="list-style-type: none"> <li>Living things are special collections of matter that reproduce, use energy and grow. Food provides materials and energy for life and growth. Plants and bacteria use energy from the sun to generate food. Animals break down food and are ultimately dependant on green plants for energy.</li> </ul>	<p>Key Concepts Delivered - <b>Biology</b></p> <ul style="list-style-type: none"> <li>Living things are special collections of matter that reproduce, use energy and grow. Food provides materials and energy for life and growth. Plants and bacteria use energy from the sun to generate food. Animals break down food and are ultimately dependant on green plants for energy.</li> </ul>	<p>Key Concepts Delivered - <b>Biology</b></p> <ul style="list-style-type: none"> <li>Explain how the weather changes throughout the year and name the seasons (ink to Geography)</li> </ul>
<p><b>National Curriculum Objectives</b></p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Observe changes across the four seasons..</li> <li>Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees .</li> </ul>	<p><b>National Curriculum Objectives</b></p> <p>Pupils should be taught to:</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</li> </ul>	<p><b>National Curriculum Objectives</b></p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Observe changes across the four seasons. (geography link)</li> <li>Observe and describe weather associated with the seasons and how day length varies. (geography link)</li> </ul>
<p><b>Relevant Prior Learning:</b></p> <ul style="list-style-type: none"> <li>Understand the difference between plants and animals through observation (similarity and difference).</li> <li>Plant seeds and care for growing plant with support (responsibility)</li> </ul>	<p><b>Relevant Prior Learning</b></p> <ul style="list-style-type: none"> <li>Understand the difference between plants and animals through observation (similarity and difference).</li> <li>.lant seeds and care for growing plant with support (responsibility)</li> </ul>	<p><b>Relevant Prior Learning</b></p> <ul style="list-style-type: none"> <li>Name and identify some different types of weather.</li> </ul>
<p><b>Expected Outcomes:</b></p> <ul style="list-style-type: none"> <li>Explain how leaves change across the seasons.</li> <li>Know what flowers we can find in the different seasons.</li> <li>Explain how plants grow and change over time.</li> </ul>	<p><b>Expected outcomes:</b></p> <ul style="list-style-type: none"> <li>Explain how plants grow and change over time.</li> <li>Name and identify a range of common garden and wild plants (including some deciduous and evergreen trees)</li> <li>Name and label the basic structure of a plant and a tree.</li> </ul>	<p><b>Expected outcomes:</b></p> <ul style="list-style-type: none"> <li>The children understand that the season is spring/summer</li> <li>The children will know what the weather is like in spring/summer</li> <li>Understand what different types of weather are.</li> </ul>

## Our Changing World: Plants (Biology)

Module	Snap Science recommended lessons	National Curriculum Objectives	Expected Outcome/s:	Vocabulary	Suggested Resources
Our Changing World: Plants	Lesson 1: How do leaves change across the year?	<p><b>Enquiry Type:</b> Observing changes over a period of time</p> <p><b>LO:</b> To observe, compare and contrast leaves across the seasons, noticing any changes that may have occurred.</p> <p><b>Working Scientifically:</b> Observing closely using simple equipment</p>	Make careful observations of leaves. compare and contrast leaves that have been observed or collected.	leaves, bud, twig, branch, tree, plant, leaflet, rough, smooth, shiny, glossy, wrinkled, crinkled, crunchy, crisp, soft, green, olive, brown, orange, red, yellow, rust, and other descriptive phrases and colour names	sorting hoops, sticky labels, magnifiers, digital cameras, iPad, leaf identifier, collection of leaves of different types, pebbles, twigs, Our Changing World diaries
Our Changing World: Plants	Lesson 2: Do all trees lose their leaves in winter and grow new ones in spring?	<p><b>Enquiry Type:</b> Observing changes over a period of time.</p> <p><b>LO:</b> To observe, compare and contrast trees across the seasons, in particular what happens to the leaves and the changes in the twigs.</p> <p><b>Working Scientifically:</b> Observing closely using simple equipment</p>	Make observations of a variety of trees, recognising significant differences in the size, structure and shape of different trees. Understand that some trees are evergreen/deciduous.	leaf, leaves, bud, twig, branch, tree, plant, deciduous, evergreen, colours of leaves, textures of leaves (as in Lesson 1)	magnifiers, digital cameras, iPad, talk buttons (or similar sound recorder), tree identifier, paper, pencils and pens, secateurs (for use by adults only), Our Changing World diaries
Using Our Senses	Lesson 4: How do plants and trees grow over time?	<p><b>Enquiry Type:</b> Observing changes over a period of time.</p> <p><b>LO:</b> To observe and describe changes to plants that take place over time.</p> <p><b>Working Scientifically:</b> Observing closely using simple equipment.</p>	.Plant vegetable and fruit plants, and care for them as they grow. and observe these plants carefully, noticing the changes as they grow.	plug plant, roots, stem, shoot/s, bud, flower, leaf, soil, compost, manure, dig, prepare, water, watering	Sgrowing space of at least 120 cm x 120 cm, wooden edging boards, string, plug plants, for example, lettuce varieties, tomatoes, dwarf beans, Swiss chard, spring onions, carrots, radishes, cucumbers, beetroot, strawberries; Our Changing World diaries

## Plant Detectives (Biology)

Module	Snap Science recommended lessons	National Curriculum Objectives	Expected Outcome/s:	Vocabulary	Suggested Resources
Plant Detectives	Lesson 1: What garden plants can we find around our school?	<p><b>Enquiry Type:</b> Grouping and classifying.</p> <p><b>LO:</b> To identify, name, describe and compare some familiar garden plants in the local environment.</p> <p><b>Working Scientifically:</b> Observing closely using simple equipment.</p>	Identify and name some familiar garden plants and make careful observations of garden plants.	garden plant, names of garden plants, such as pansy, geranium, busy Lizzie, petunia, begonia, daisy, snapdragon, fuchsia, lily, daffodil, buddleia, lavender, cosmos; plant parts, such as leaf, stem, branch, flower, bud; similar, different, compare, group, identify	garden plant catalogues, labels from plants, potted plants, such as geranium, pansy, cosmos, lavender, fuchsia, busy Lizzie; magnifiers, digital cameras, visualiser (optional), Our Changing World diary (optional)
Plant Detectives	Lesson 3: What is the same and what is different about the flowers around us?	<p><b>Enquiry Type:</b> Grouping and classifying .</p> <p><b>LO:</b> To compare a variety of familiar flowering plants and group them according to the similarities in their flowers.</p> <p><b>Working Scientifically:</b> Identifying and classifying.</p>	Recognise and identify flowering garden and wild plants, sometimes with help; describe similarities and differences between flowers.	flower, blossom, petals, stem, stalk, comparative language, such as small, little, big, large, single, lots: names of a variety of garden and wild plants found around school.	flowering pots, plants, such as tulip, lily, geranium, pansy, cosmos, lavender, fuchsia, busy Lizzie; plant catalogues, cut flowers magnifiers, digital cameras, 'collector trays' (for example, small plastic food trays), A3 paper or card, paint chart strips or colour samples (optional)
Plant Detectives	Lesson 4: what is happening underground beneath our plants?	<p><b>Enquiry Type:</b> Grouping and classifying</p> <p><b>LO:</b> To describe and compare the root systems of a variety of familiar plants.</p> <p><b>Working Scientifically:</b> sing observations and ideas to suggest answers to questions</p>	Identify the roots of different kinds of plants and compare and contrast the roots of a variety of familiar plants, describing how they are similar to and different from one	lant, root, root system, tap root, fibrous roots	Variety of plants that have been dug up from planted borders, vegetable gardens or waste areas, such as dandelion, daisy, clumps of grass, carrots; bedding plants, some potted plants that might be lifted temporarily from their pots, magnifiers, microscope, digital cameras, glue or sticky tape.

## Plant Detectives (Biology)

Module	Snap Science recommended lessons	National Curriculum Objectives	Expected Outcome/s:	Vocabulary	Suggested Resources
Plant Detectives	Lesson 5: What makes a tree a tree?	<p><b>Enquiry Type:</b> Noticing patterns</p> <p><b>LO:</b> To identify and name, describe and compare a variety of trees in the local environment.</p> <p><b>Working Scientifically:</b> Gathering and recording data to help in answering questions.</p>	Identify a variety of trees in my local environment and observe and describe trees, identifying similarities and differences between them.	strips of paper to wrap around trunks of trees, wax crayons and paper, digital cameras, sketchpads, tape measures and metre sticks.	plant, tree, trunk, branch, twig, bud, leaf, leaves, bark, wood; comparative language – tall, short, taller, shorter, tallest, shortest, compare, measure; descriptive language – surface, texture, rough, smooth, bumpy, cracks, flakes, wrinkled
Plant Detectives	Lesson 6: What different plants, leaves	<p><b>Enquiry Type:</b> Grouping and classifying</p> <p><b>LO:</b> To observe plants, leaves and flowers closely, draw or paint them, and combine them in a mural.</p> <p><b>Working Scientifically:</b> Observing closely using simple equipment</p>	I can make observations about plants at the garden centre and in the classroom. and use scientific vocabulary to describe the different parts of the plants.	Names of common garden plants from Lesson 1, such as pansy, geranium, busy Lizzie, petunia, begonia, daisy, snapdragon, fuchsia, lily, daffodil, buddleia, lavender, cosmos; names of exotic tropical plants, such as leopard lily, prayer plant, yucca; plant parts such as leaf, stem, branch, flower, bud	display of plants in the classroom, photographs of the plants in their natural habitat, digital cameras, sound recorders, clipboards and pencils, secondary sources of information; for the mural panels – shallow cardboard trays such as supermarket salad trays, thick paper or card to line bases of trays, paints, coloured pencils and pens, coloured papers, crepe paper, pipe cleaners, PVA glue, scissors
Our Changing World: Sensing Seasons	Lesson 4: How does the weather change across the seasons?	<p><b>Enquiry Type:</b> Observing changes over a period of time.</p> <p><b>LO:</b> To describe the weather and how it varies at different seasons of the year.</p> <p><b>Working Scientifically:</b> Gathering and recording data to help in answering questions.</p>	Choose the right weather symbol to use to record the weather on a particular day and my data to describe what the weather was like during each season.	With our fondness in this country for talking about the weather, children may well bring to these activities existing vocabulary and ideas. Be sure to take advantage of their ideas and encourage children to communicate with each other their understanding of the weather and how this tends to change across the seasons	weather map and symbols, video camera to record bulletins, Our Changing World diaries



## Plant Detectives (Biology)

Module	Snap Science recommended lessons	National Curriculum Objectives	Expected Outcome/s:	Vocabulary	Suggested Resources
Plant Detectives	Lesson 5: What can we make with the food we have grown?	<p><b>Enquiry Type:</b> Grouping and classifying.</p> <p><b>LO:</b> To identify a variety of vegetable and fruit crops, and use them creatively to make salads.</p> <p><b>Working Scientifically:</b> Identifying and classifying</p>	Identify familiar vegetables and fruits. Pick, wash, prepare carefully and combine different produce to make salads, following instructions where necessary.	vegetable, fruit, names of vegetables and fruits, salad, wash, clean, peel, cut, chop, grate, mix, sprinkle, combine	basket or sack of vegetables complete with roots (bought locally if possible), dried fruits and seeds (to add to salads for flavour and texture), magnifiers, garden forks and spades, containers to hold picked crops, secateurs (adult use only), additional (local) vegetables or