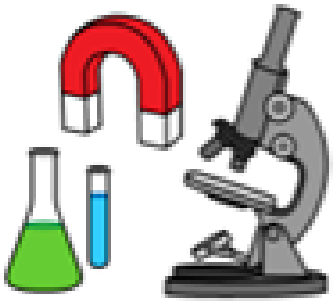
Stoneferry Science

Planning Document

Year 2



Autumn Modules

Our Changing World: (Earth and Space/Biology)	What is in your habitat? (Biology)	Good choices: Materials (Chemistry)
Key Concepts Delivered - **Earth and Space** • The Earth is tilted and spins on its axis leading to day and night, **the seasons and climate.** • Animals break down food and are ultimately dependant on green plants for energy. In any ecosystem there is competition for the energy and materials	Key Concepts Delivered - **Biology** • Animals break down food and are ultimately dependant on green plants for energy. In any ecosystem there is competition for the energy and materials needed to live and reproduce.	Key Concepts Delivered - **Chemistry** • 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…)
National Curriculum Objectives **Pupils should be taught to:** • To identify and name a variety of plants and animals in their habitats, including microhabitats. • To identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other	**National Curriculum Objectives** **Pupils should be taught to:** • Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other; to explore and compare the differences between things that are living, things that are dead and things that have never been alive.	**National Curriculum Objectives** **Pupils should be taught to:** • Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard, for particular uses .
Relevant Prior Learning: • Explain how the weather changes throughout the year and name the seasons (link to geography). • Group animals according to what they eat. • Describe and compare the features of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets).	**Relevant Prior Learning** • Group animals according to what they eat. • Describe and compare the features of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets).	**Relevant Prior Learning** • Name, compare and group a variety of everyday materials and describe their simple, physical properties. • Distinguish between an object and the materials from which it is made.
Expected Outcome/s: • Name animals and their relevant habitats and how these habitats provide the basics for different types of animals.	**Expected outcome/s:** • Name animals and their relevant habitats and how these habitats provide the basics for different types of animals.	**Expected outcome/s:** • Understand how a range of materials can be used for different purposes (some through experiments and investiga-

Our Changing World: (Earth and Space/Biology)/ What's in your habitat? (Biology)

Module	Snap Science recommend-ed lessons	National Curriculum Objectives	Expected outcome	Vocabulary	Suggested Resources
Our Chang-ing World:	**Lesson 1: What lives in the habitat?**	**Enquiry Type -** Grouping and classifying **LO:** To observe and identify what plants and animals live in different habitats **Working Scientifically:** Observing closely and gather-ing and recording data to help in answering ques-tions	Use identification keys to name some animals and plants. I can make careful observations of an animal.	habitat	teaspoons, pots, magnifying glasses, digital microscope and laptop, cam-era or tablet computer, pond dip-ping equipment (nets, trays), identi-fication keys, materials to make a class book, OCW diaries
Our Chang-ing World:	**Lesson 2: ow does the habi-tat change throughout the year?**	**Enquiry Type -** Gathering and recording data to help in answering questions **LO:** To record changes in the number and types of animals found in a habitat during the year. **Working Scientifically:** Noticing patterns	Construct a tally chart to record my observations look for patterns in re-sults.	habitat, tally chart, pattern	teaspoons, pots, magnifying glasses, pond dipping equipment (nets, trays), rulers
What's in your habi-tat?	**Lesson 1: What is in your habitat?**	**Enquiry Type -** Grouping and classifyin **LO:** To recognise and compare the main compo-nents of some different habitats **Working Scientifically:** Using observations and ideas to suggest answers to questions	rRcognise and name things that are living, once lived and have nev-er lived in some habitats. • I can explain that the main parts of a habitat are living things, things that once lived and things that have never lived.	habitat, alive, living, once-lived, dead, never-lived, plants, animals, decay, rocks, soil, air, water	A rock, dead leaf, a living thing (ideally something from one or more of the chosen habitats such as a worm, beetle or woodlouse; if that is not possible a small pet such as a hamster), plastic bags and suit-able containers for taking things back into the classroom, digital cameras

What's in your habitat? (Biology)/ Good choices: Materials (Chemistry)

Module	Snap Science recommended lessons	National Curriculum Objectives	Expected outcome	Vocabulary	Suggested Resources
What's in your habitat?	**Lesson 2: What do different animals eat in their habitat?**	**Enquiry Type:** Finding things out using secondary sources of information. **LO: T**o construct examples of food chains for a selection of habitats. **Working Scientifically:** Finding things out using secondary sources of information.	Sequence the animals in a food chain based on what they eat and add arrows correctly to the food chain.	Food chain, plants, animals, herbivores (eat plants and parts of plants), carnivores (eat other animals), omnivores (eat plants/ parts of plants and other animals), direction, source of food	The Gruffalo by Julia Donaldson, other picture books that include feeding relationships, such as Pond Circle by Betsy Franco, This is the Sea that Feeds Us by Robert Baldwin, Butternut Hollow Pond by Brian J. Heinz, Trout are Made of Trees by April Pulley Sayre, Sparrow Girl by Sara Pennypacker
What's in your habitat?	**Lesson 3: Where Can I live?**	**Enquiry Type - G**rouping and classifying **LO: T**o identify ways in which living things are suited to their habitat. **Working Scientifically: U**sing observations and ideas to suggest answers to questions	To link features of animals to how they feed, move or make their home and use features of an animal or plant to decide which habitat it is suited	suited, habitat, features, names of habitats, living things, animal body parts	The Oak Tree (Big Cat book), scissors, glue sticks
Good choices: materials	**Lesson 1: Can you describe the object?**	**Enquiry Type -** Grouping and classifying **LO: T**o describe objects, including naming the material from which they are made. **Working Scientifically: I**dentifying and classifying	Compare two object and identify the material an object is made from and think of other objects that are made from that material.	words that describe how something feels (for example, smooth, rough, soft, squashy, hard, bendy, stiff, warm, cold) and how it looks (shiny, dull, thin, fl at, bumpy, thick, pointed), wood, metal, plastic, glass, rock, brick, paper	Feely bag, groups of objects made of the same material (for example, metal – spoon, paper clip, scissors, tin, spring, necklace; plastic – bag, ruler, cup; wood – chop-stick, spoon, toy, dice), classification or sorting hoops.

Good choices: Materials (Chemistry)

Module	Snap Science recommended lessons	National Curriculum Objectives	Expected outcome	Vocabulary	Suggested Resources
Good choices: materials	**Lesson 2: What material is it made of?**	**Enquiry Type:** Grouping and classifying. **LO:** To identify objects made of particular materials. **Working Scientifically: I**dentifying and classifying.	Identify objects made of particular materials and describe the properties of a material.	words that describe a material (for example, smooth, rough, soft, hard, flexible, stiff, shiny, dull, see through, cold, warm, breaks), wood, metal, plastic, glass, brick, rock, paper, fabric	prepared sticky notes, digital camera, printer, large sheets of paper, glue sticks, a set of the same types of objects (for example, spoons or cups) that are made of different materials
Good choices: materials	**Lesson 3: Is that a good choice of material?**	**Enquiry Type - G**rouping and classifying. **LO: T**o explain if a material is a good choice for an object **Working Scientifically:** Using observations and ideas to suggest answers to questions.	Decide if a material is a good choice or not and explain why it is a good choice or not.	wood, metal, plastic, glass, rock, paper	Paper clips, pencils, samples of six different materials (for example, wood, metal, plastic, glass, rock and paper)
Good choices: materials	**Lesson 5: What fabric will make a bedroom dark?**	**Enquiry Type - C**arrying out simple comparative and fair tests **LO:** To test different fabrics to find out how much light passes through. **Working Scientifically: O**bserving closely, performing simple tests and using observations to suggest answers to questions, and gathering and recording data to help in answering questions	Suggest a way to test a fabric to find out how much light it lets through and can carry out this test and record my results.	right, fabric, light, see through, opaque, transparent, material	Photocopier paper box, small model figure or teddy bear, collection of fabrics (for example, voile, open net curtain fabric, thin and thick cotton, thin silk/acetate, heavy brocade, velvet, scissors, glue

Good choices: Materials (Chemistry)

Module	Snap Science recommend-ed lessons	National Curriculum Objectives	Expected outcome	Vocabulary	Suggested Resources
Good choic-es: materials	**Lesson 6:** What shall we use to make a teabag?	**Enquiry Type:** Carrying out simple comparative and fair tests. **LO: To** test different materials to find out which is suitable for a teabag. **Working Scientifically: U**sing observations and ideas to suggest answers to questions.	suggest how to test the different materi-als and carry out the test and record my results. Sort out which materials are good choices for teabags from those that are no	teabag, tea leaves, material, water-proof, bendy, absorbent, property, tear .	Beakers, access to hot water (hot tap or fl ask), tea leaves in contain-ers, materials to test (for example, tin foil, greaseproof paper, toilet paper, kitchen towel, dish cloth, thin fabric such as muslin or silk), printer paper, card, plastic tea-spoons, pipettes, syringes, rubber bands, pegs, teabags emptied and
Good choic-es: materials	**Lesson 7: Which is the bounciest ball?**	**Enquiry Type - C**arrying out simple comparative and fair tests **LO: T**o compare balls to find out how bouncy they are. **Working Scientifically:** Performed simple tests.	Test balls to see how bouncy they are and use my results to or-der the balls according to how bouncy they are.	ball, bounce, high, height, measure, record	Selection of balls (including those used for different sports) for each group of four children, display bor-ders, bricks/blocks that link togeth-er, metre rulers, squared paper
Good choic-es: materials	**Lesson 8: What can you invent?**	**Enquiry Type -** Observation. **LO:** To invent creative and unusual uses for every-day materials **Working Scientifically:** Usng observations and ideas to suggest answers to questions	Describe what an in-ventor does and think of new uses for an everyday object. Ex-plain how the proper-ties of an object, its material and shape, make it suitable for its use	invent, create, unusual, material, property	Two or three balloons, a metal pa-perclip for each child, six clear plas-tic cups, six wooden chopsticks, six metal CDs, six synthetic bath spong-es

Good choices: Materials (Chemistry)

Module	Snap Science recommended lessons	National Curriculum Objectives	Expected outcome	Vocabulary	Suggested Resources
Good choices: materials	**Lesson 9: What materials are suitable for covering up my tent?**	**Enquiry Type:** Carrying out simple comparative and fair tests . **LO:** To test different materials to find out which is suitable to cover a tent **Working Scientifically:** Gathering and recording data to help in answering questions	Decide which properties are important for a material used to make a tent and can test tent materials for different properties. To sort those materials that are good choices for a tent cover and those that are not	tent, property, hard, soft, waterproof, absorbent, bendy, stretchy, stiff, shiny, dull, rough, smooth, opaque, transparent, translucent, strong, weak	black bin liners (opaque, waterproof), thick clear plastic (transparent, waterproof and strong), thick card (opaque, not bendy, absorbent), waterproof fabric (for example, samples from sofa shops where the fabric is treated), non-waterproof fabric,

Our Changing World: (Earth and Space/Biology)	Materials shaping up (Chemistry)	The Apprentice Gardner (Biology)
Key Concepts Delivered - **Earth and Space** • The Earth is tilted and spins on its axis leading to day and night, **the seasons and climate.** • Animals break down food and are ultimately dependant on green plants for energy. In any ecosystem there is competition for the energy and materials	Key Concepts Delivered - • 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…)	Key Concepts Delivered - • 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.
National Curriculum Objectives **Pupils should be taught to:** • To identify and name a variety of plants and animals in their habitats, including microhabitats. • To identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other	**National Curriculum Objectives** **Pupils should be taught to:** • Use, correctly, scientific words related to changing shape. • Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. • Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard, for particular uses .	**National Curriculum Objectives** **Pupils should be taught to:** • Observe and describe how seeds and bulbs grow into mature plants. • Observe and describe how seeds and bulbs grow into mature plants, and fi nd out and describe how plants need water, light and a suitable temperature to grow and to stay healthy.
Relevant Prior Learning: • Explain how the weather changes throughout the year and name the seasons (link to geography). • Group animals according to what they eat. • Describe and compare the features of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets).	**Relevant Prior Learning** • Name, compare and group a variety of everyday materials and describe their simple, physical properties. • Distinguish between an object and the materials from which it is made.	**Relevant Prior Learning** • Observe changes across the four seasons.. • Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees .
Expected Outcome/s: • Name animals and their relevant habitats and how these habitats provide the basics for different types of animals.	**Expected outcome/s:** • Understand how the shapes of solids can be altered through various means and how materials are suited to different purposes.	**Expected outcome/s:** • Understand and explain how seeds and bulbs grow into plants. Know the key things and conditions a seed/bulb/

Our Changing World: (Earth and Space/Biology)/ Material: Shaping Up (Chemistry)

Module	Snap Science recommended lessons	National Curriculum Objectives	Expected outcome	Vocabulary	Suggested Resources
Our Changing World:	**Lesson 3:** How do the animals in a habitat depend on each other?	**Enquiry Type –F** inding things out using secondary sources of information **LO:** o understand how animals depend on each other for food **Working Scientifically: U**sing observations and ideas to suggest answers to questions	Sequence the animals in a food chain based on what they eat and use my food chain to talk about how the animals depend on each other.	Food chains.	Books and other secondary sources containing information about predators relevant to the habitats children are observing
Our Changing World:	**Lesson 4:** How do animals change?	**Enquiry Type -** Observing changes over time **LO: T**o observe how animals change over time. **Working Scientifically: U**sing observations and ideas to suggest answers to questions.	Name some animals which are born live and some which hatch from eggs and describe the animal and we kept how it was changed.	egg, offspring, baby, adult, grow, change	Animal to observe, with appropriate equipment and conditions for keeping it; OCW diaries; rulers or other measuring apparatus, audio recording equipment, cameras
Materials shaping up	**Lesson 1: How can I make different shapes?**	**Enquiry Type -** Grouping and classifying **LO:** To use, correctly, scientific words related to changing shape **Working Scientifically:** Using observations and ideas to suggest answers to questions.	To show squashing, stretching, bending and twisting can create a movement sequence using squashing, stretching, bending and twisting.	squash, bend, twist, stretch, pull, push, calligram	Modelling clay, digital camera, pre-prepared action dice and body parts dice .

Material: Shaping Up (Chemistry)

Module	Snap Science recommend-ed lessons	National Curriculum Objectives	Expected outcome	Vocabulary	Suggested Resources
Materials shaping up	**Lesson 2: How Can I change the shape of an object?**	**Enquiry Type –** Grouping and classifying. **LO: T**o recognise that different objects made from the same material can have different properties, and to sort objects according to how their shapes can be changed. **Working Scientifically: G**athering and recording data to help in answering questions.	To test objects to see whether their shapes can be changed. And can sort objects according to the way that their shapes can be changed	squashing, bending, twisting, stretching, names of objects and the materials that they are made from, table, column, Venn diagram, set, sort	Sticky notes, sets of materials for each challenge (as listed in the Enquire section), digital camera, large (A1 or A2) recording tables with five columns each (for challenge group 1), hoops (for creating Venn diagrams) .
Materials shaping up	**Lesson 4: What material should I use?**	**Enquiry Type -** **LO:** o make links between materials and how they are used . **Working Scientifically:** .sing observations and ideas to suggest answers to questions	Use my chart to remind me which materials are flexible, rigid, stretchy, squashy, elastic or stiff. • I can choose materials that have the properties that are needed for	suitable, flexible, rigid, stretchy, squashy, elastic, stiff, squashing, bending, twisting, stretching, names of materials, properties.	blocks of wood, wooden ruler (or similar wooden strip), thin wooden dowel, springs, coins, paperclips and pieces of foil, metal blocks, rubber bands, string, playdough
Materials shaping up	**Lesson 5: Which elastic shall we use for a catapult?**	**Enquiry Type - C**arrying out simple comparative and fair tests **LO: T**o test the stretchiness of a material (elastic) **Working Scientifically: O**bserving closely, using simple equipment	Test the different sorts of elastics to see how stretchy they are and measure how much it stretches.. Record how much it stretches.	elastic, stretch, stretchiness, weight, push, pull, catapult, measure, record, table, bar chart	4–6 different elastics (for example, rubber bands, sewing elastic), weights that can be hung on the elastic, ruler, string or wool, bricks/ blocks that link together, paper clips (optional), squared paper

Material: Shaping Up (Chemistry)/The Apprentice Gardener (Biology)

Module	Snap Science recommend-ed lessons	National Curriculum Objectives	Expected outcome	Vocabulary	Suggested Resources
Materials shaping up	**Lesson 6: What shall we use to make a catapult?**	**Enquiry Type –** Carrying out simple comparative and fair test. **LO: T**o construct and test some catapults. **Working Scientifically: G**athering and recording data to help in answering questions	Choose appropriate materials for a catapult frame and can say what properties make the material suitable	elastics from Lesson 5, bamboo skewers, spaghetti, dowelling, straws, lolly sticks, teaspoons, strong glue, sticky tape, modelling clay (can be used for joining or to make missiles), marshmallows (gelatine free), elastic bands, pipe-cleaners, metre sticks, tape	catapult, frame, missile, strong, rig-id, fl exible, stretchy, elastic, push, pull, measure, record
The Appren-tice Garden-er	**Lesson 1 :What will the seeds grow into?**	**Enquiry Type - G**rouping and classifying **LO:** o identify which seeds will grow into which types of plants **Working Scientifically:** .Observing closely, using sim-ple equipment	Make observations of different types of seeds. and use my observations to de-scribe and identify seeds.. Suggest what might help the seeds to grow.	seeds, plants, apprentice, gardener, grow, observations, describe, identi-fy, expert	sets of 8–10 seeds (one set between two children), sets of six different bean seeds (in seed packets or dried beans for cooking), sticky tape, col-ouring pencils
Materials shaping up	**Lesson 2: What do gar-deners need to know?**	**Enquiry Type - O**bserving changes over time **LO: T**o ask questions that will help us to fi nd out about growing plants from seed. **Working Scientifically: A**sking simple questions and recognising that they can be answered in different ways .	Think about what might happen to seeds when they grow and turn my ideas into questions. Suggest what a gardener needs to know about seeds	seed, plant (verb and noun), bulb, grow, question, observe, predict, water, compare, answer, investigate	pllastic bags, plastic bottles, paper towel, stapler, a selection of seeds (including beans, peas and quick growing 'sprouting' seeds), sticky notes, digital camera, bulbs, jars or vase

The Apprentice Gardener (Biology)

Module	Snap Science recommended lessons	National Curriculum Objectives	Expected outcome	Vocabulary	Suggested Resources
The Apprentice Gardener	**Lesson 3: How should we plant seeds?**	**Enquiry Type – C**arrying out simple comparative and fair tests **LO: T**o plan and set up an investigation into how seeds should be planted. **Working Scientifically: P**erforming simple tests.	Ssuggest what might happen when seeds are planted in different ways. And can plan how my ideas can be tested.	seed, bean, soil, surface, plant, compare, test, bury, light, dark, water, prediction	bean seeds, small pots, transparent plastic bottles or jars (as for Lesson 2), compost, large paper, marker pens, digital camera (optional)
The Apprentice Gardener	**Lesson 4: What is happening to our seeds?**	**Enquiry Type -** Observing changes over time; carrying out simple comparative and fair tests. **LO:** To make an accurate record of the changes that happen to our seeds. **Working Scientifically:** .Gathering and recording data to help in answering questions.	Make careful observations of my seeds and record my observations using dated and labelled drawings or photographs.	seed, plant, germinate, grow, radicle, root, shoot, leaves, change	digital camera, children's seed diaries, bean diaries and group diaries, measuring jugs or cylinders
Materials shaping up	**Lesson 6: How can we care for our plants?**	**Enquiry Type - O**bserving changes over time **LO: T**o decide how to improve the condition of an unhealthy plant . **Working Scientifically: U**sing observations and ideas to suggest answers to questions.	Make observations of plants and compare them. and can suggest what has caused a plant to be unhealthy.. Plan how I will care for a plant and improve its condition.	seedling, mature plant, wilting, healthy, unhealthy, water, light, warmth, plan, change, care, predict	mini whiteboards and pens, one healthy mature plant and enough unhealthy plants of the same type for each group

The Apprentice Gardener (Biology)

Module	Snap Science recommend-ed lessons	National Curriculum Objectives	Expected outcome	Vocabulary	Suggested Resources
The Appren-tice Garden-er	**Lesson 7: What hap-pens when a seed germi-nates?**	**Enquiry Type : O**bserving changes over time . **LO: T**o describe the different stages of germina-tion. **Working Scientifically: O**bserving closely using sim-ple equipment.	Make detailed observa-tions of seeds during germination and name the parts of a seedling. Remember the order in which they grow.	germination, grow, seed, seedling, mature plant, food store, radicle, root, shoot, leaves, fi rst, next, later, observation, order	The bags or plastic bottles of seeds planted in Lesson 2, children's seed diaries, magnifi ers, video or audio recording equipment (optional), digital camera, modelling materials for children to make models of ger-minating seeds
The Appren-tice Garden-er	**Lesson 8: Does it matter how we plant our seeds?**	**Enquiry Type -** .Carrying out simple comparative and fair tests. **LO: T**o write a conclusion that answers a question about how seeds should be planted. **Working Scientifically:** Gathering and recording data to help in answering questions.	Make and record a series of observations as seeds germinate and seedlings grow. And decide what my observations tell me. Write a conclusion describing what I have found out	seed, bean, soil, surface, plant, com-pare, test, bury, light, dark, water, prediction, observation, conclusion	The pots and containers or bags with the beans that were planted in Lesson 3, bean diaries, highlighter pens

Summer Term

Our Changing World: (Earth and Space/Biology)	Growing Up (Biology)	Take Care (Biology)
Key Concepts Delivered - **Earth and Space** • The Earth is tilted and spins on its axis leading to day and night, **the seasons and climate.** • Animals break down food and are ultimately dependant on green plants for energy. In any ecosystem there is competition for the energy and materials needed to live and reproduce.	Key Concepts Delivered - **Biology** • iving 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. In any ecosystem there is competition for the energy and materials needed to live and reproduce.	Key Concepts Delivered –**Biology**: • 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. In any ecosystem there is competition for the energy and materials needed to live and reproduce.
National Curriculum Objectives **Pupils should be taught to:** • To identify and name a variety of plants and animals in their habitats, including microhabitats. • To identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other	**National Curriculum Objectives** **Pupils should be taught to:** • Find out about and describe the basic needs of animals, including humans, for survival (water, food and air). • Notice that animals, including humans, have offspring which grow into adults.	**National Curriculum Objectives** **Pupils should be taught to:** • Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.
Relevant Prior Learning: • Explain how the weather changes throughout the year and name the seasons (link to geography). • Group animals according to what they eat. • Describe and compare the features of a variety of common animals (fish, amphibians, reptiles,	**Relevant Prior Learning** • Identify, name, draw and label the basic parts of the human body. • Group animals according to what they eat.	**Relevant Prior Learning** • Identify, name, draw and label the basic parts of the human body • Group animals according to what they eat. .
Expected Outcome/s:	**Expected outcome/s:**	**Expected outcome/s:**

Our Changing World: (Earth and Space/Biology)/ Growing Up (biology)

Module	Snap Science recommended lessons	National Curriculum Objectives	Expected outcome	Vocabulary	Suggested Resources
Our Changing World:	**Lesson 6: How do plants grow and change over time?**	**Enquiry Type – O**bserving changes over time. **LO: To** observe, describe and measure changes in plants which take place over time . **Working Scientifically:** Observe and describe how seeds and bulbs grow into mature plants.	Can sow seeds and bulbs taking into account how much space they need to grow well and care for the seeds and bulbs as they grow.	seed, bulb, plant, stem, shoot(s, bud, flower, leaf, soil, compost, manure, dig, prepare, water, watering	suitable growing space at least 4 feet by 4 feet, wooden boards to edge garden, string to divide area into 16 square foot mini gardens. Seeds and bulbs for ingredients for soup: onions, garlic, carrots, potatoes, tomatoes, peas, coriander, mint, chives, basil.
Our Changing World:	**Lesson 7: How will we make our coup?**	**Enquiry Type - O**bserving changes over time **LO:** To identify when crops are ready to harvest and to use these to make soup **Working Scientifically: O**bserving closely, using simple equipment	Identify when the crop is ready to harvest and can pick, wash and prepare different crops, identifying which parts of the plant we use	plant, vegetable, herbs, names of vegetables and herbs, wash, clean, peel, cut, chop, blend, smooth, puree, heat, boil, simmer, fry	Forks, spades, containers to hold picked crops, secateurs (adult use only), additional (local) vegetables or herbs, knives, scissors, kitchen equipment, food processor, large heavy□based saucepan, cooker or hob, plastic bowls or cups for serving the soup in, spoons for eating the soup
Growing Up	**Lesson 1: What do babies need?**	**Enquiry Type - G**rouping and classifying **LO: T**o recognise the needs of a human baby for survival **Working Scientifically: I**dentifying and classifying	Give differences between living and non-living things and group things a baby does and does not need.	baby, doll, need, want, living, alive, essential, food, milk, water, drink, eat, air, breathe, shelter, warmth, survival, depend	baby doll, large sheets of paper with columns or sorting circles, glue and/ or digital camera, large paper or sticky notes

Growing Up (Biology)

Module	Snap Science recommend-ed lessons	National Curriculum Objectives	Expected outcome	Vocabulary	Suggested Resources
Growing Up	**Lesson 2: How have we changed?**	**Enquiry Type: O**bserving changes over time **LO: T**o compare features of a baby and a child. **Working Scientifically:** Using observations and ideas to suggest answers to questions.	Recognise character-istics of babies. And can recognise char-acteristics of chil-dren.	baby, child, toddler, compare, change, differences, dependent, independent, move, feed, eat, care, learn, appearance, annotate.	3 paper and glue or photo mounts (if using children's own photos for Challenge 1), video recorder/tablet computer with webcam (optional)
Growing Up	**Lesson 3: How do we change throughout our lives?**	**Enquiry Type -** Finding things out using secondary sources of information **LO: T**o classify and describe changes that happen as people grow older **Working Scientifically: G**athering and recording data to help in answering questions.	Name the stages of human life. and put the stages of human life in order. Describe differences between the stages.	life cycle, life story, stages, order, compare, differences, changes, pregnancy, birth, baby, toddler, child, teenager, adult, parent, elder-ly person, independent, grow	Sticky notes, digital camera (optional), scissors, glue
Growing Up	**Lesson 4: Do older children have bigger head?**	**Enquiry Type: N**oticing patterns **LO: T**o investigate whether older children have bigger heads **Working Scientifically:** Gathering and recording data to help in answering questions	Measure the size of someone's head and complete a table. Plot points on a scatter graph.	grow, measure, compare, table, scatter graph, plot, pattern	Cardboard hats, tape measures, small coloured stickers (for the scatter graph), lengths of string or ribbon

Take Care (Biology)

Module	Snap Science recommended lessons	National Curriculum Objectives	Expected outcome	Vocabulary	Suggested Resources
Take Care	**Lesson 1: How can we sort this food?**	**Enquiry Type:** Grouping and classifying **LO: T**o sort food into different types. **Working Scientifically: i**dentifying and classifying	Sort food in different ways and label the groups. Present my sorting in a Venn diagram.	food, sort, classify, Venn diagram, Carroll diagram	Ccassification hoops or circles, digital camera
Take Care	**Lesson 2: What food should we eat?**	**Enquiry Type - G**rouping and classifying. **LO:** To sort foods according to their food types. **Working Scientifically: U**sing observations and ideas to suggest answers to questions.	Sort sort food in different ways name and give examples of the different food types. Design a healthy lunch box.	food, healthy diet, dairy, fruits, vegetables, meat, fi sh, beans, fat, sugar, bread, potatoes, cereals	n/a
Growing Up	**Lesson 3: How can we stay fit?**	**Enquiry Type: F**inding things out using secondary sources of information **LO: T**o observe the effects of exercise and plan for regular exercise **Working Scientifically: U**sing observations and ideas to suggest answers to questions.	Describe how my body feels when I exercise and suggest different activities that exercise our bodies.	exercise, physical activity, hot, sweaty, heart beating, tired, aching, muscles	video camera, A3 paper, felt tip pens

Take Care (Biology)/ The Apprentice Gardner (Biology)

Module	Snap Science recommended lessons	National Curriculum Objectives	Expected outcome	Vocabulary	Suggested Resources
Take Care	**Lesson 4: How can we stay clean?**	**Enquiry Type:** Finding things out using secondary sources of information **LO: T**o describe different ways to stay hygienic. **Working Scientifically: U**sing observations and ideas to suggest answers to questions.	Suggest ways to be hygienic. and explain how to clean my body.	clean, hygiene, hygienic, wash, bath, shower, brush, comb, toothbrush, toothpaste, soap, water, shampoo	A3 paper, glue, video cameras
The Apprentice Gardener	**Lesson 9: How expert are we?**	**Enquiry Type:** Observations. **LO: T**o produce a piece of information writing about how to grow plants from seeds **Working Scientifically: U**sing observations and ideas to suggest answers to questions	Give expert answers to questions about growing plants and include all the information that is needed.	bulb, seed, plant, germinate, grow, radicle, root, shoot, leaves	The bulbs from Lesson 2, children's seed diaries and bean diaries, group diaries and other written work, sticky notes
The Apprentice Gardener	**Lesson 10: What do plants need to grow and be healthy?**	**Enquiry Type: O**bserving change over time; carrying out simple comparative and fair tests **LO: T**o identify what plants need for healthy growth. **Working Scientifically:** Gathering and recording data to help in answering questions .	Make and record observations and comparisons of healthy and unhealthy plants and describe what happens to plants that are not watered	plant, wilting, healthy, unhealthy, water, light, warmth, plan, change, care, predict, observations, because	The plants from Lesson 6 that children have been caring for (including those from Enrichment lesson 3, if taught)

Our Changing World: (Earth and Space/Biology)

Module	Snap Science recommended lessons	National Curriculum Objectives	Expected outcome	Vocabulary	Suggested Resources
Our Changing World	**Lesson 10: Are all offspring the same as their parents?**	**Enquiry Type: O**bserving changes over time. **LO: T**o observe similarities and differences between babies and their parent **Working Scientifically: U**sing observations and ideas to suggest answers to questions.	Ttalk about similarities and differences between baby and adult animals, including humans and say how a baby animal will change as it grows into an adult.	offspring, baby, adult, grow, change, chick, calf, cub, kid and other baby animal terms.	Animals to observe, basic bird identifi cation books, notebooks/ paper/ OCW diaries, camera, printed photos of animals seen during the visit for Challenge 1, A4 card for Challenge 2 and A4 card cut into quarters for Challenge 3