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| **EYFS Learning Objectives** |
| Knowledge and Understanding of the World: The World  Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class; Explore the natural world around them, making observations and drawing pictures of animals and plants; Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.  Personal, Social and Emotional Development: Managing Self  Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices. |

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| **Key Stage One Statutory requirements for Working Scientifically** |
| **Use the following practical scientific methods, processes and skills through the teaching of the programme of study content:** |
| Ask simple questions and recognise that they can be answered in different ways |
| Observe closely, using simple equipment |
| Perform simple tests |
| Identify and classify |
| Use their observations and ideas to suggest answers to questions |
| Gather and record data to help in answering questions. |

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| **Key Stage One National Curriculum Objective** | **Strand** | **Snap Science Units** | |
| **Year 1** |
| Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees | Plants | Module 1-Plant detectives | |
| Identify and describe the basic structure of a variety of common flowering plants, including trees. | Plants | Module 1-Plant detectives | |
| Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals | Animals, including humans | Module 2-Looking at animals | |
| Identify and name a variety of common animals that are carnivores, herbivores and omnivores | Animals, including humans | Module 2-Looking at animals | |
| Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) | Animals, including humans | Module 2-Looking at animals | |
| Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. | Animals, including humans | Module 3-Using our senses | |
| Distinguish between an object and the material from which it is made | Everyday materials | Module 4-Everyday materials | |
| Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock | Everyday materials | Module 4-Everyday materials | |
| Describe the simple physical properties of a variety of everyday materials | Everyday materials | Module 4-Everyday materials | |
| Compare and group together a variety of everyday materials on the basis of their simple physical properties | Everyday materials | Module 4-Everyday materials | |
| Observe changes across the four seasons | Seasonal changes | OCW: Plants  OCW: Sensing seasons | |
| Observe and describe weather associated with the seasons and how day length varies | Seasonal changes | OCW: Sensing seasons | |
| **Year 2** |  | | |
| Explore and compare the differences between things that are living, dead, and things that have never been alive | Living things and their habitats | | Module 1-What is in your habitat? |
| 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 | Living things and their habitats | | Module 1-What is in your habitat? |
| Identify and name a variety of plants and animals in their habitats, including microhabitats | Living things and their habitats | | Module 1-What is in your habitat? |
| Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food. | Living things and their habitats | | Module 1-What is in your habitat? |
| Observe and describe how seeds and bulbs grow into mature plants | Plants | | Module 2-The apprentice gardener |
| Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. | Plants | | Module 2-The apprentice gardener |
| Notice that animals, including humans, have offspring which grow into adults | Animals, including humans | | Module 6-Growing up |
| Find out about and describe the basic needs of animals, including humans, for survival (water, food and air) | Animals, including humans | | Module 6-Growing up |
| Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. | Animals, including humans | | Module 5-Take care |
| Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses | Uses of everyday materials | | Module 3-Materials: Good choices |
| Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. | Uses of everyday materials | | Module 4-Materials: Shaping up |

**Long Term Plan**

**FS1**

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| **Term 1 / Ongoing Throughout the Year** |
| **Development Matters: Understanding the World Age 3 - 4:**  Talk about what they see, using a wide vocabulary  Use all their senses in hands-on exploration of natural materials  Explore collections of materials with similar and/or different properties  Talk about the differences between materials and changes they notice  **Links to Early Learning Goals:**  Understanding the World: The Natural World - Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class; Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter |
| **Term 2** |
| **Development Matters: Personal, Social and Emotional Development Age 3 - 4**:  Make healthy choices about food, drink, activity and toothbrushing  **Development Matters: Understanding the World Age 3 - 4:**  Show interest in different occupations  Understand the key features of the life cycle of a plant and an animal  **Links to Early Learning Goals:**  Understanding the World: The Natural World - Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class; Explore the natural world around them, making observations and drawing pictures of animals and plants.  Personal, Social and Emotional Development: Managing Self  Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices. |
| **Term 3** |
| **Development Matters: Personal, Social and Emotional Development Age 3 - 4**:  Make healthy choices about food, drink, activity and toothbrushing  **Development Matters: Understanding the World Age 3 - 4:**  Begin to understand the need to respect and care for the natural environment and all living things  Understand the key features of the life cycle of a plant and an animal  Talk about the differences between materials and changes they notice  **Links to Early Learning Goals:**  Understanding the World: The Natural World - Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter  Personal, Social and Emotional Development: Managing Self  Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices. |

**FS2**

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| **Term 1** |
| **Early Learning Goal:** Understanding the World: The Natural World - Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class; Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.  Science topics:   * Space (including Making bottle rockets) * Floating and sinking * Seasons |
| **Term 2** |
| **Early Learning Goal:** Understanding the World: The Natural World - Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.  Science topics:   * Magnetism * Materials * Seasons |
| **Term 3** |
| **Early Learning Goal:** Understanding the World: The Natural World – Explore the natural world around them, making observations and drawing pictures of animals and plants; Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.  Science topics:   * Plants and growth * Senses * Seasons |

**Year 1**

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| **Term 1** |
| **Module 3-Using our senses**  Working scientifically links: Asking simple questions and recognising that they can be answered in different ways; Identifying and classifying; Using observations and ideas to suggest answers to questions; Performing simple tests; Gathering and recording data to help in answering questions  **Module 4-Everyday materials**  Working scientifically links: Identifying and classifying; Using observations and ideas to suggest answers to questions; Observing closely using simple equipment; Performing simple tests; Gathering and recording data to help in answering questions  **OCW: Sensing seasons**  Working scientifically links: Identifying and classifying; Using observations and ideas to suggest answers to questions; Observing closely using simple equipment; Gathering and recording data to help in answering questions |
| **Term 2** |
| **Module 1-Plant detectives**  Working scientifically links: Identifying and classifying; Using observations and ideas to suggest answers to questions; Observing closely using simple equipment; Gathering and recording data to help in answering questions  **OCW: Sensing seasons**  Working scientifically links: Identifying and classifying; Using observations and ideas to suggest answers to questions; Observing closely using simple equipment; Gathering and recording data to help in answering questions |
| **Term 3** |
| **Module 2-Looking at animals**  Working scientifically links: Identifying and classifying; Using observations and ideas to suggest answers to questions; Observing closely using simple equipment; Gathering and recording data to help in answering questions  **OCW: Sensing seasons**  Working scientifically links: Identifying and classifying; Using observations and ideas to suggest answers to questions; Observing closely using simple equipment; Gathering and recording data to help in answering questions |

**Year 2**

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| **Term 1** |
| **Module 3-Materials: Good choices**  Working scientifically links: Identifying and classifying; Using observations and ideas to suggest answers to questions; Observing closely; Performing simple tests; Gathering and recording data to help in answering questions  **Module 4-Materials: Shaping up**  Working scientifically links: Using observations and ideas to suggest answers to questions; Observing closely, using simple equipment; Performing simple tests; Gathering and recording data to help in answering questions |
| **Term 2** |
| **Module 6-Growing up**  Working scientifically links: Identifying and classifying; Gathering and recording data to help in answering questions; Using observations and ideas to suggest answers to questions  **Module 5-Take Care**  Working scientifically links: Identifying and classifying; Using observations and ideas to suggest answers to questions |
| **Term 3** |
| **Module 2-The apprentice gardener**  Working scientifically links: Observing closely, using simple equipment; Asking questions and recognising that they can be answered in different ways; Performing simple tests; Gathering and recording data to help in answering questions; Using observations and ideas to suggest answers to questions  **OCW: What lives in a habitat?/** **Module 1-What is in your habitat?**  Working scientifically links: Using observations and ideas to suggest answers to questions; Gathering and recording data to help in answering questions |

**Progression of knowledge**

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| **EYFS** | **Key Stage 1** | |
| **Year 1** | **Year 2** |
| **Plants** | | |
| Explore the natural world around them, making observations and drawing pictures of animals and plants. Development Matters: Explore the natural world around them; Describe what they see, hear and feel whilst outside; Understand the effect of changing seasons on the natural world around them. | Can identify and name a variety of common wild and garden plants, including deciduous and evergreen.  Can identify and describe the basic structure of a variety of common flowering plants, including trees. | Can observe and describe how seeds and bulbs grow into mature plants.  Can find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. |
| **Animals including humans** | | |
| Explore the natural world around them, making observations and drawing pictures of animals and plants. | Can identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.  Can identify and name a variety of common animals that are carnivores, herbivores and omnivores.  Can describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets).  Can identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. | Notice that animals, including humans, have offspring which grow into adults.  Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).  Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. |
| **Everyday materials/Uses of everyday materials** | | |
| Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class; Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. Development Matters: Recognise some environments that are different from the one in which they live; Describe what they see, hear and feel whilst outside. | Can distinguish between an object and the material from which it is made.  Can identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock.  Can describe the simple physical properties of a variety of everyday materials.  Can compare and group together a variety of everyday materials on the basis of their simple physical properties. | Can identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. Can find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. |
| **Seasonal changes** | | |
| Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. Development Matters: Understand the effect of changing seasons on the natural world around them; Describe what they see, hear and feel whilst outside; Describe what they see, hear and feel whilst outside. | Can observe changes across the four seasons.  Can observe and describe weather associated with the seasons and how day length varies. |  |
| **Living things and their habitats** | | |
| Explore the natural world around them, making observations and drawing pictures of animals and plants; Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. Development Matters: Explore the natural world around them. |  | Can explore and compare the differences between things that are living, dead, and things that have never been alive.  Can 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.  Can identify and name a variety of plants and animals in their habitats, including micro-habitats.  Can describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food. |

**Language Plan**

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| **Early Years** |
| Soil, segments, saddle, camouflage, habitat, hatchling, human, seed, root, leaf, flower, stem, animal, adult, parent, young, male, female, home, materials, material, suitable, dark, light, the Sun, the Moon, stars, fly, fall, sky, rocket, astronaut, space, move, push, pull, float, sink, leaves, fruit, plant, vegetable |
| **Year 1** |
| **OCW: Plants –** plant (verb and noun), leaf, leaves, bud, twig, branch, tree, roots, stem, shoot, bud, flower, leaf, rough, smooth, shiny, glossy, wrinkled, crunchy, crisp, soft, green, olive, brown, orange, red, yellow, rust, flower, blossom, petals, stem, stalk, small, little, big, large, single, lots, deciduous, evergreen, plug plant, soil, compost, manure, dig, prepare, water, watering, vegetable, fruit, names of vegetables and fruit, salad, wash, clean, peel, cut, chop, grate, mix, sprinkle, combine  **OCW: Sensing seasons-s**easons, autumn, winter, spring, summer, evidence, similar, different, group, compare, change, names of the months of the year, temperature, hot, warm, cold, cool, freezing, frosty, wet, dry, sunny, cloudy, showery, stormy, windy, breeze, gale, rainy, sunny, snow, shower, drizzle, puddle, thunder, lightning, sleet, fog, mist, hat, gloves, mittens, scarf, ear muffs, boots, coat, umbrella, wellies, kite, windmill, sunglasses, thick, thin, woolly, furry, waterproof  **Module 1: Plant detectives –** pansy, geranium, busy Lizzie, petunia, begonia, snapdragon, fuchsia, lily, daffodil, tulip, buddleia, weed, buttercup, thistle, nettle, foxglove, poppy, dandelion, daisy, cornflower, periwinkle, bluebell, leaf, stem, flower, bud, root, root system, tap root, fibrous roots, tree, trunk, branch, twig, tall, short, taller, tallest, shorter, shortest, similar, different, compare, group, measure  **Module 2: Looking at animals -** fish, amphibian, reptile, bird, mammal, goldfish, tropical fish, budgerigar, parrot, rabbit, gerbil, hamster, mouse, chinchilla, lizard, snake, dog, cat, tail, paws, legs, feet, nose, ears, eyes, feather, fur, scales, fins, fish, tail, gills, scales, eyes, mouth, bill, beak, head, eye, legs, claws, wings, feather, down quill, webbed feet, legs, smooth skin, big eyes and mouth, nose, scaly skin, claws on feet, long tongue, big teeth, mackerel, trout, hake, sea bass, whitebait, fl at fish, plaice, robin, blackbird, blue tit, hawk, peacock, seagull, magpie, eagle, jump, hop, leap, climb, clamber, swing, pad, pace, prowl, pounce, spring, flap, fly, flutter, flop, splash, dive, swim, slither, slide, hedgehog, fox, bat, badger, night, nocturnal, senses, sight, smell, sonar, food, feeding, roost, sett, burrow, tunnel, nest, hospital, surgery, nurse, vet, patient, care, look after, treat, accident, injury, injured, illness, sick, medicine, bandage, stethoscope, gloves, face mask, overalls, cow, sheep, pig, horse, pony, goat, duck, chicken, cockerel, goose, harvest mouse, barn owl, rabbit, cat, dog, moo, baa, oink, neigh, bleat, quack, cluck, cock-a-doodle-do, honk, squeak, purr, miaow, woof, eat, healthy, meat, insects, fish, vegetables, plants, trees, grass, seeds, nuts, carnivore, herbivore, omnivore, goat, beard, hoof, hooves, horns, troll, ugly, big eyes, big pointed ears, big nose, big mouth with sharp teeth, small, medium, big, smallest, biggest, dinner, meal, meat, lamb, beef, ham, chicken, vegetables, plants, trees, bushes, grass, menu, hamper, appetite  **Module 3: Using our senses -** body, head, neck, arms, elbows, hands, fingers, legs, knees, feet, face, skin, ears, eyes, nose, nostrils, hair, mouth, teeth, tall, taller, short, shorter, big, bigger, small, smaller, louder, softer, loud, quiet, high, low, senses, taste, hearing, touch, smell, sight, bitter, sweet, sour, sharp, tingly, fizzy, milky, creamy, buzzer, doorbell, radio, tocker timer, bird song, wind blowing, car horn, traffic noise, loud/er, quiet/er, peaceful, silent, silence, noise, noisy, bang, crash, whistle, buzz, ring, squeak, creak, rattle, bang, knock, tick, chime, feel, touching, sensitive, sense, sensory, rub, pinch, prod, rough, smooth, bumpy, wrinkled, grooved, shiny, smooth, soft, hard, crunchy, slippery, slimy, fragrance, scent, pong, flowery, fruity, sour, bitter, sharp, strong, gentle, smelly, delicate, sensitive, fabric, material, layers, thick, thin, thicker, thinner, soft, hard, clock, window, door, floorboards, kettle, fire, chicken, sheep, cow, cluck, baa, moo  **Module 4: Everyday materials -** materials, wood, wooden, plastic, metal, glass, water, rock, brick, paper, writing, wrapping, shiny, drawing, display, greaseproof, kitchen towel, handkerchief, wallpaper, sand paper, fabric, wool, nylon, silk, fleece, fibre, properties, hard, soft, fluffy, rough, smooth, shiny, dull, light, heavy, transparent (see-through), opaque (can’t see-through), translucent (see something through), harder, lighter, rougher, stretch, stretchy, elastic, stiff, bend, bendy, not bendy, press, squash, twist, shape, waterproof, absorb, absorbent, soak up, mop up; frozen, freeze, melt, salt, tissue paper, button, glass bead, marble, pebble, pasta |
| **Year 2** |
| **Module 1: What is in your habitat? -** habitat, alive, living, once-lived, dead, never-lived, plants, animals, decay, rocks, soil, air, water, 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, suited, habitat, features, names of habitats, living things and animal body parts  **Module 2: The apprentice gardener -** seeds, plant (verb and noun), apprentice, gardener, bulb, grow, observe, observations, describe, identify, expert, question, predict, prediction, water, compare, answer, investigate, bean, soil, surface, test, bury, light, dark, water, germinate, fair, same, plan, suitable, radicle, root, shoot, leaves, change, evidence, height, tallest, shortest, bar chart, scale, pattern, question, connection, measure, seedling, mature plant, wilting, healthy, unhealthy, warmth, care, die, block, agree, disagree, alive, food store, fi rst, next, later, after…days, order, conclusion, because  **Module 3: Materials: Good choices -** material, wood, property, metal, plastic, glass, rock, brick, paper, cardboard, fabric, smooth, rough, soft, hard, bendy, squashy, stiff, rigid, shiny, dull, see through, cold, warm, breaks, fold, crease, waterproof, absorb, absorbent, wet, sunglasses, lenses, light, block, transparent, opaque, translucent, strength, strong, weak, tear, teabag, tea leaves, chair, legs, arms, seat, backrest, cushion, tent, stretchy, tent cover, frame, flexible, measure, record  **Module 4: Materials: Shaping up -** twist, squash, bend, stretch, squashing, bending, twisting, stretching, push, pull, pushing, pulling, roll, pinch, press, smooth, flexible, rigid, stretchy, squashy, elastic, stiff, properties, suitable, stretchiness, weight, catapult, frame, missile, strong, table, column, Venn diagram, set, sort, label, measure, record, bar chart  **Module 5: Take Care -** food, sort, classify, Venn diagram, Carroll diagram, healthy diet, dairy, fruits, vegetables, meat, fish, beans, fat, sugar, bread, potatoes, cereals, exercise, physical activity, hot, sweaty, heart beating, pulse, tired, aching, muscles, clean, hygiene, hygienic, wash, bath, shower, brush, comb, toothbrush, toothpaste, soap, water, shampoo  **Module 6: Growing up -** baby, need, want, living, alive, essential, food, milk, water, drink, eat, air, breathe, shelter, warmth, survival, depend, child, toddler, compare, change, differences, dependent, independent, move, care, learn, appearance, annotate, life cycle, life story, stages, order, pregnancy, birth, teenager, adult, parent, elderly person, grow, measure, compare, table, scatter graph, plot, pattern, evidence, observation, question, record |

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| **Speaking and Listening - Oracy Framework Strands** |
| Linguistic – Vocabulary.  Cognitive – Content; Structure; Clarifying and summarising; reasoning.  Social and emotional – Working with others; Listening and responding. |

**Sequence of Teaching and Learning**

**Early Years: Foundation Stage 1**

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| **Term** | **Topic** | **Learning Objectives** | **Links** |
| **Autumn & Ongoing Throughout the Year** | **Colour the World with Kindness**  **Let’s countdown to Christmas** | * Observe changes in the environment (seasons)   **Talk about what they see, using a wide vocabulary (DM 3/4 year olds).**   * Explore the different textures of materials and changes that take place.   **Use all their senses in hands-on exploration of natural materials; Explore collections of materials with similar and/or different properties; Talk about the differences between materials and changes they notice (DM 3/4 year olds).**   * Begin to understand which foods are healthy and where foods come from. | Continuous provision: Sand, water, playdough, slime, foam, gloop, jellibaff.  Baking. |
| **Spring** | **Nursery Rhymes**  **Emergency Services to the Rescue** | * Learn about the importance of exercise and the effect it has on our bodies.   **Make healthy choices about food, drink, activity and toothbrushing (DM 3/4 year olds).**   * Learn about parts of the body. * Learn about some occupations.   **Show interest in different occupations (DM 3/4 year olds)**   * Introduce the planets and the Solar System. * Observe the life cycle of a chick.   **Understand the key features of the life cycle of a plant and an animal (DM 3/4 year olds).** | Visit from a Firefighter.  Visit from PCSO.  Living Eggs hatching program |
| **Summer** | **The Great Rowena Bake Off**  **Magic, Monsters and Fantastic Beasts** | * Learn about the importance of exercise and the effect it has on our bodies.   **Make healthy choices about food, drink, activity and toothbrushing (DM 3/4 year olds).**   * Learn about how to care for pets. What are their basic needs?   **Begin to understand the need to respect and care for the natural environment and all living things (DM 3/4 year olds).**   * Learn about the need to look after our planet and the importance of recycling.   **Begin to understand the need to respect and care for the natural environment and all living things (DM 3/4 year olds).**   * Observe plants growing. What are their basic needs?   **Begin to understand the need to respect and care for the natural environment and all living things; Understand the key features of the life cycle of a plant and an animal (DM 3/4 year olds).**   * Observe living things in the local environment-minibeasts.   **Begin to understand the need to respect and care for the natural environment and all living things (DM 3/4 year olds).**   * Explore floating and sinking.   **Talk about the differences between materials and changes they notice (DM 3/4 year olds).** | ‘Squiggle Whilst you Wiggle’  Visit Harry the Rowena rabbit.  Plants seeds.  Minibeast hunt. |

**Early Years: Foundation Stage 2**

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| **Term** | **Topic & Module** | **Science Unit** | **Linked Lessons** | **Learning Objectives** | **Links** |
| **Autumn** | **Blast Off**  Physics: Light, space, electricity & movement.  **Pirates Ahoy!** | Space  Weeks 6-8 | Lessons 13, 14 & 15. | * Learn the names of the planets and some of their characteristics. * Understand that all of the planets and the sun make up the solar system. * Know that the sun is a large star, a massive ball of hot gas that gives off light and heat. * Know that we live on planet Earth. * Know that all of the planets orbit the sun, which is in the middle of our solar system. * Understand that the planets are all different sizes, temperatures and have different surfaces. * Know that Planet Earth has one moon but some planets have many.   Rockets and Space travel   * Know that astronauts explore space and the moon, and that they travel there in a rocket. * Know that Neil Armstrong was the first Astronaut to walk on the moon. * Make bottle rockets and launch them. | Space Role Play.  Wonder Dome Planetarium. |
| Seasons-autumn  Ongoing | Discussions as changes occur. | * Understand the effect of changing seasons on the natural world around them. (DM) |  |
| Floating and Sinking  Week 10 | Lesson 8: What floats? | * What does it mean to ‘float’ and ‘sink’? * Use available resources to make ships that can float. |  |
| Seasons-winter  Ongoing | Discussions as changes occur. | * Understand the effect of changing seasons on the natural world around them. (DM) |  |
| **Spring** | **Who is your hero? / Our Wonderful World**  Chemistry: Objects & materials. | Magnetism  Week 4 |  | * Introduction to magnetism and the terminology involved e.g. repelling and attracting. * Explore different objects and sort them into groups of those which are magnetic and non-magnetic. * Create a magnetic Superhero Game. |  |
| Materials  Week 10 | Lesson 7: Who lives here? | * Discuss the different homes in which people live from around the world. Look at different pictures/ photographs of homes. * Identify what materials some of these homes are made from. * Discuss the properties of the different materials used and why they would be appropriate e.g. glass for windows. |  |
|  |  | Seasons-spring  Ongoing | Discussions as changes occur. | * Understand the effect of changing seasons on the natural world around them. (DM) |  |
| **Summer** | **How do they grow?** | Plants and Growth  Weeks 1-6 | Lesson 6: Who are my parents? | * Understand what is a living thing? What is a non-living thing? How do we know something is living or non-living? * Nature walk- Look for living / non-living things around the school and its immediate environment. Record findings. * Plant beans, sunflowers and cress. * Discuss and explore the conditions for growth. * What type of animals do you find living on a farm? * Recognise farm animals and their babies. * Learn and sequence the life cycle of a frog and butterfly. | Introduce caterpillars and begin to watch them develop.  Cannon Hall Farm visit |
| Senses  Weeks 7 and 8 | Lesson 4: What am I made of? | * Label parts of the body. * Learn about our skeleton. * Identify our 5 senses. * What are our senses and how do we use them to find out about the world? * Look at a selection of objects and identify which of our 5 senses we use to find out about them. |  |
| Seasons-summer  Ongoing | Discussions as changes occur. | * Understand the effect of changing seasons on the natural world around them. (DM) |  |

**Year 1**

**Module 3-Using our senses**

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| **Lesson** | **Aims** | **Success Criteria** |
| 1 | Is everyone’s body the same?  To identify, name and compare parts of our bodies. | • I can name parts of my body.  • I can ask simple questions about how parts of our bodies are different from one another.  • I can make observations and identify similarities and differences.  • I can suggest how to answer my science questions. |
| 2 | What differences can our tongues taste?  To describe, compare and group different edible materials by using the sense of taste. | • I can carry out a simple taste test.  • I can use my sense of taste to describe, using appropriate words, how things taste.  • I can describe and compare different tastes (and sequence them from sweet to sour) |
| 3 | What can we hear using our sense of hearing?  To identify, compare and group the sounds collected during a sound walk. | • I can use my sense of hearing to help me identify and name sounds around school.  • I can say whether one sound that I hear using my ears is louder than another.  • I can group sounds in different ways. |
| 4 | How can we explore the world using our sense of touch?  To describe how our sense of touch helps us to learn about the world around us. | • I can compare, using appropriate words, the textures that I touch.  • I can identify, name and describe objects and materials that I touch with my feet and hands.  • I know that different parts of my body are more sensitive for touching than others. |
| 5 | Which smells do we love and hate?  To describe and compare a variety of different smells, identifying which are the most and least  liked by the class. | • I can use my sense of smell to help me to decide which smells I like and dislike.  • I can carry out a simple test and record what I find out.  • I can identify simple patterns in my results. |

**Module 4: Everyday Materials**

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| **Lesson** | **Aims** | **Success Criteria** |
| 1 | What material is this? (Parts 1 & 2)  To identify and name everyday materials. | • I can identify objects made out of wood, metal, plastic, glass, rock and brick.  • I can sort objects into wooden, metal, plastic, glass, rock and brick groups.  • I can use pictures to record my sorting.  • I can identify water found in different places.  • I can use a magnifier correctly. |
| 2 | What’s it made of?  To recognise that most objects are made from more than one material. | • I can identify and name different materials.  • I can sort objects according to the materials from which they are made.  • I can make a simple record of what materials the objects are made from. |
| 3 | Can the same object be made from different materials?  To describe how the same type of object can be made using different materials. | • I can recognise that an object like a spoon can be made from different materials.  • I can suggest reasons why those different materials might be used.  • I can explain that some materials are better for making some things than others.  • I can complete a table as a record of what I have done. |
| 4 | What’s it like?  To identify and describe the physical properties of a selection of materials. | • I can describe what materials look like.  • I can describe how materials feel.  • I can sort materials according to how they look and feel. |

**Module 1-Plant detectives**

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| **Lesson** | **Aims** | **Success Criteria** |
| 1 | What Garden Plants Can We Find Around School? / What Wild Plants Can We Find Around School?  To identify, name, describe and compare some familiar garden plants and a variety of familiar wild plants in the local environment. | • I can identify and name some familiar garden plants and wild plants.  • I can make careful observations of garden and wild plants.  • I can compare wild plants and garden plants that I see and say in simple terms how they are similar and different. |
| 2 | What is the same and different about flowers around us?  To identify and describe the basic structure of a variety of common flowering plants, including trees. | • I can recognise and identify flowering garden and wild plants, sometimes with help.  • I can describe similarities and differences between flowers. • I can group flowers in different ways, sometimes choosing my own groups. |
| 3 | What is happening underground beneath our plants?  To describe and compare the root systems of a variety of familiar plants. | • I can identify the roots of different kinds of plants.  • I can make observations of roots.  • I can compare and contrast the roots of a variety of familiar plants, describing how they are similar to and different from one another. |
| 4 | What makes a tree a tree?  To identify and name, describe and compare a variety of trees in the local environment. | • I can identify a variety of trees in my local environment.  • I can observe and describe trees, identifying similarities and differences between them.  • I can compare the heights of different types of trees and the diameter of their trunks. |

**Module 2-Looking at animals**

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| **Lesson** | **Aims** | **Success Criteria** |
| 1 | Who’s who in the animal world?  To identify and name a variety of common animals | • I can identify and name a variety of common animals.  • I can group animals in different ways using simple features, for example, four/not four legs or has fur/doesn’t have fur.  • I can recognise animals that are fish, amphibians, reptiles, birds and mammals. |
| 2 | How are animals’ bodies different?  Do fish have fingers?  To describe and compare the body structures of different kinds of animals  To describe and compare different kinds of fish. | • I can use information sources, photographs, videos and books to help me find out about the body of the animal I am modelling.  • I can name the parts of the animal’s body and include these in my model.  • I can compare different animal body models.  • I can use simple terms to describe fish and name parts of their bodies.  • I can observe using magnifiers to help me notice details.  • I can make comparisons between different fish and describe similarities and differences. |
| 3  4 | Grouping Animals | • I can recognise animals that are fish, amphibians, reptiles, birds and mammals. |
| 5 | What’s So Special About Birds?  To observe the main features of birds, including feathers, and to compare these in different kinds of birds. | • I can use simple terms to describe birds and identify and name parts of their bodies.  • I can recognise the main features of birds and make comparisons between different types of birds.  • I can compare birds to other animals.  • I can observe closely using magnifiers to help me notice details. |
| 6 | How do different animals move?  To describe and compare how different kinds of animals move. | • I can use simple words to describe the ways that a variety of animals move.  • I can use my body to move in a similar way to some animals. • I can compare the movements that some different kinds of animals make. |
| 7 & 8 | Whose food is this?  To recognise that some animals mainly eat meat (carnivores), some only eat plant materials (herbivores) and some eat both (omnivores) | • I can identify foods that might be eaten by different types of animals.  • I can group a variety of animals according to what they eat. • I can begin to use the words ‘carnivore’, ‘herbivore’ and ‘omnivore’ as I talk about animals. |
| 9 | Which animals are busy at night?  To describe how the lives of nocturnal animals differ from those of animals seen during the daytime | • I can identify physical features of nocturnal animals, for example, badger, owl, hedgehog, bat and fox that help them at night.  • I can say what happens to a nocturnal animal during the day. • I can describe how the lives of nocturnal animals differ from those of other animals. |

**OCW module: Sensing Seasons** (taught each term)

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| **Lesson** | **Aims** | **Success Criteria** |
| 1 | How do the changing seasons affect me?  To identify how the seasons determine how ‘our changing world’ varies, and to describe the impact that seasonal change has on our lives. | • I can name the four seasons of the year.  • I can describe how the changes I notice each season look and feel.  • I can suggest which clothing to wear in each season.  • I can explain why clothing made of certain materials is suitable for a particular season. |
| 2 | What can we see and hear that shows us that the seasons are changing? Part 1  To observe, describe and compare the changing seasons of the year. | • I can identify things in the natural world that change each season.  • I can use my senses to make observations.  • I can collect evidence to show how the seasons change. |
| 3 | What can we see and hear that shows us that the seasons are changing? Part 2  To identify how ‘our changing world’ varies depending on the season. | • I can use evidence that I have collected to answer questions about differences between seasons.  • I can explain which season certain evidence might be found. |
| 4 | How does the weather change across the seasons?  To describe the weather and how it varies at different seasons of the year. | • I can make observations of the weather over time.  • I can choose the right weather symbol to record the weather.  • I can look for patterns in the data that we collect.  • I can use my data to describe what the weather was like during each season. |
| 5 | What do different kinds of weather look and feel like?  To describe and compare weather associated with the seasons. | • I can use key vocabulary as I talk about my observations.  • I can describe how the weather affects me and the world around me.  • I can compare different types of weather for each season. |

**Year 2**

**Module 3 – Materials: Good choices**

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| **Lesson** | **Learning Intention** | **Success Criteria** |
| 1 | Can you describe the object?  To describe objects, including naming the material from which they are made. | • I can compare two objects.  • I can identify the material an object is made from and think of other objects that are made from that material.  • I can record my observations in a suitable way. |
| 2 | What material is it made of?  To identify objects made of particular materials. | • I can identify objects made of particular materials.  • I can describe the properties of a material.  • I can suggest reasons to explain why the material was chosen to make that object. |
| 3 | Is that a good choice of material? To explain if a material is a good choice for an object. | • I can decide if a material is a good choice or not.  • I can explain why it is a good choice or not.  • I can give reasons based on the properties of the materials. |
| 4 | Which material is a good choice for a pair of toddler’s dungarees?  To test different fabrics to decide which is the best to use for dungarees. | • I can rub different pieces of fabric in the same way to find out how easily I can make a hole in them.  • I can record my results.  • I can use my results to help me choose the best material for dungarees. |
| 5 | What fabric will make a bedroom dark?  To test different fabrics to find out how much light passes through. | • I can suggest a way to test a fabric to find out how much light it lets through.  • I can carry out this test and record my results.  • I can explain what I found out from the test. |

**Module 4 – Materials: Shaping up**

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| **Lesson** | **Aims** | **Success Criteria** |
| 1 | How can I make different shapes?  To use, correctly, scientific words related to changing shape. | • I can show squashing, stretching, bending and twisting.  • I can create a movement sequence using squashing, stretching, bending and twisting.  • I can say whether I am pushing or pulling when I am doing those actions. |
| 2 | How can I change the shape of an object?  To 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. | • I can test objects to see whether their shapes can be changed.  • I can sort objects according to the way that their shapes can be changed.  • I can record my sorting using a table or a Venn diagram.  • I can give examples of objects that are made from the same materials but that have different properties. |
| 3 | What property allows a material to be changed?  To test whether materials are flexible, rigid, stretchy, squashy, elastic or stiff | • I can use action words to describe how I change the shape of a material.  • I can use the scientific words to describe a property and the opposite of this property.  • I can use actions to test the properties of materials. |
| 4 | Which material should I choose?  To make links between materials and how they are used. | • I can 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 making particular things.  • I can explain which is the most suitable material and suggest reasons why. |

**Module 6-Growing up**

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| **Lesson** | **Aims** | **Success Criteria** |
| 1 | What do Babies Need?  To recognise the needs of a human baby for survival. | • I can give differences between living and non-living things.  • I can group things a baby does and does not need.  • I can identify some things that are not essential but are good for babies to have. |
| 2 | How have we changed?  To compare features of a baby and a child. | • I can recognise characteristics of babies.  • I can recognise characteristic of children.  • I can identify changes that happen when babies grow in to children. |
| 3 | How do we change throughout our lives?  To classify and describe changes that happen as people grow older. | • I can name stages of human life.  • I can put the stages of human life in order.  • I can describe differences between the stages. |
| 4 | Do older children have bigger heads?  To investigate whether older children have bigger heads. | • I can measure the size of someone’s head.  • I can complete at table.  • I can plot points on a scatter graph.  • I can use the graph to answer an investigation question. |
| 5 | What can we find out about babies?  To ﬁnd out and record the answers to questions about babies. | • I can ask questions about babies.  • I can make observations of a baby.  • I can record what I have found out using writing and pictures. |

**Module 5– Take care**

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| **Lesson** | **Aims** | **Success Criteria** |
| 1 | How can we sort this food?  To sort food into different types. | * I can sort food in different ways * I can label the groups * I can present my sorting in a Venn diagram |
| 2 | What food should we eat?  To sort foods according to their food types. | * I can sort food in different ways * I can name and give examples of the different food types * I can design a healthy lunch box |
| 3 | How can we stay fit?  To observe the effects of exercise and plan for regular exercise. | * I can explain how my body feels when I exercise * I can suggest different activities that exercise our bodies * I can plan daily physical activities |
| 4 | How can we stay clean?  To describe different ways to stay hygienic. | * I can suggest ways to be hygienic * I can explain how to clean my body * I can give reasons why it is important to keep my body clean |
| 5 | Enrichment lesson 1 How can we stay healthy?  To present information about staying healthy in a book for younger children. | * I can decide what information needs to go in my book * I can state key messages about how to stay healthy and safe |

**Module 2 – The apprentice gardener**

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| **Lesson** | **Aims** | **Success Criteria** |
| 1 | What will the seeds grow into?  To identify which seeds will grow into which types of plants | • I can make observations of different types of seeds.  Resources:  flowering plant in a  pot, such as a geranium, sticky notes or index cards  • I can use my observations to describe and identify seeds.  • I can suggest what might help the seeds to grow.  • I can match the seed to the type of plant it will grow into. |
| 2 | Lesson 7: What happens when a seed germinates? | • I can observe and describe how seeds and bulbs grow into mature plants. |
| 3 | What do gardeners need to know? | • I can find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. |
| 4 | What is happening to our seeds? | • I can observe and describe how seeds and bulbs grow into mature plants.  Resources:  flowering plant in a  pot, such as a geranium, sticky notes or index cards  • I can find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. |
| 5 | How tall will they grow? | • I can observe and describe how seeds and bulbs grow into mature plants. |
| 6 | How can we care for our plants? | • I can find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. |

**OCW: What lives in a habitat? /** **Module 1-What is in your habitat?**

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| **Lesson** | **Aims** | **Success Criteria** |
| 1 | OCW: What lives in a habitat?  To observe and identify what plants and animals live in different habitats. | * I can 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. * I can explore and compare the differences between things that are living, dead, and things that have never been alive. |
| 2 | What is in your habitat?  To recognise and compare the main components of some different habitats. | • I can explore and compare the differences between things that are living, dead, and things that have never been alive |
| 3 | What do different animals eat in their habitats?  To construct examples of food chains for a selection of habitats. | • I can sequence the animals in a food chain based on what they eat.  • I can add arrows correctly to the food chain.  • I can relate the food chains to a suitable habitat.  • I can use my food chain to talk about how the animals depend on each other. |
| 4 | Where can I live?  To identify ways in which living things are suited to their habitat. | • I can make observations of features of living things.  • I can link features of animals to how they feed, move or make their home.  • I can use features of an animal or plant to decide which habitat it is suited for. |