Eastbury Primary School: Science Progression map. Published: 2020 Reviewed: 2022

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1						
Science National Curriculum topic title and Collins Snap Science title **YEAR 1**	Sc1/2.2 **NC title: Animals including humans** **Collins title: Looking at animals** **Key knowledge:** To be able to name and locate parts of the human body, including those related to the senses, and describe the importance of exercise, balanced diet and hygiene for humans. To understand the terms: 'carnivore', 'herbivore' and 'omnivore'. Sc1/2.2c To describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets) **Key skills:** Sc1/2.2a To identify and name a variety of common animals including, fish, amphibians,	Sc1/2.2 **NC title: Animals including humans** **Collins title: Using our senses** **Key knowledge:** Sc1/2.2d To identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. **Key skills:** To carry out a variety of comparative tests and identifying and classifying enquiries. Communicate learning in different ways, including orally, and using talk tools to record responses. Organise any data that is collect using tables and tally charts as appropriate, and look for simple patterns, for example,	Sc1/3.1 **NC title: Everyday materials** **Collins title: Everyday materials (Lessons 1 – 6)** **Key knowledge:** Sc1/3.1a To be able to distinguish between an object and the material from which it is made. Recognise that the same materials can be made into different objects, for example, a metal can, a metal spoon and a metal car. Follow lesson objectives for lessons 1 – 6. **Key skills:** Sc1/3.1b To identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock Sc1/3.1c Use touch and sight to identify a number of	Sc1/3.1 **NC title: Everyday materials** **Collins title: Everyday materials (Lessons 7 - 12)** **Key knowledge:** Sc1/3.1a To be able to distinguish between an object and the material from which it is made. Recognise that the same materials can be made into different objects, for example, a metal can, a metal spoon and a metal car. Follow lesson objectives for lessons 7 - 12. **Key skills:** Sc1/3.1b To identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock Sc1/3.1c Use touch and sight to identify a number of simple properties of materials.	Sc1/2.1 **NC title: Plants** **Collins title: Plant detectives** **Key knowledge:** Describe basic needs of plants for survival and the impact of changing these and the main changes as seeds and bulbs grow into mature plant. **Key skills:** Sc1/2.1a To identify and name a variety of common wild and garden plants, including deciduous and evergreen trees Sc1/2.1b To identify and describe the basic structure of a variety of common flowering plants, including trees Group and classify. Notice patterns and use secondary sources of evidence to answer questions. Sc1/1.5 **Pattern seeking** To use their observations and ideas to suggest answers to questions	Sc1/4.1 **NC title: Seasonal Changes** **Collins title: Sensing seasons** **Key knowledge:** To be able to describe weather associated with the seasons and how day length varies. Name the four seasons and link to time of year. Understand what clothing should be worn in different weather conditions and during different seasons of the year. **Key skills:** Sc1/4.1a To observe changes across the 4 seasons Sc1/4.1b To observe and describe weather associated with the seasons and how day length varies. Sc1/1.6 **Research using secondary sources**

	reptiles, birds and mammals Sc1/2.2b To identify and name a variety of common animals that are carnivores, herbivores and omnivores Sc1/1.1 **Asking questions** To ask simple questions and recognise that they can be answered in different ways **Key vocabulary:** Fish, Reptiles, Mammals, Birds, Amphibians (+ examples of each) Herbivore, Omnivore, Carnivore, Leg, Arm, Elbow, Head, Ear, Nose, Back, Wings, Beak (See also Introduction page on Collins Science p52 Looking at animals- for more key words).	about their likes and dislikes. **Key vocabulary:** 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, (**See page 76** Collins Science ***Using our Senses Module 3*** for more key words).	simple properties of materials. Sc1/3.1d Learn how to group and classify materials using separate and overlapping sorting rings, simple tables and Carroll diagrams. Find ways to compare the properties of different materials. Design and carry out simple tests to make fair comparisons. Use comparative adjectives to describe for example, shinier, harder, softer **Key vocabulary:** 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,	Sc1/3.1d Learn how to group and classify materials using separate and overlapping sorting rings, simple tables and Carroll diagrams. Find ways to compare the properties of different materials. Design and carry out simple tests to make fair comparisons. Use comparative adjectives to describe for example, shinier, harder, softer **Key vocabulary:** 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	**Key vocabulary:** pansy, geranium, busy Lizzie, petunia, begonia, daisy, 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, shorter, tallest, shortest, similar, different, compare, group, measure	To gather and record data to help in answering questions. Use bar charts as a method of presenting data. Communicate outcomes in a variety of different ways, for example, by adding evidence that they collect to a 'season window' wall display, and recording their findings in a 'Weather big book'. **Key vocabulary:** seasons, 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, breeze, gale, thunder, lightning, sleet, fog, mist, hat, gloves, mittens, scarf, muffl er, ear muffs, boots, coat, umbrella, wellies, kite, windmill, sunglasses, thick, thin, woolly, furry, warm, waterproof

			button, glass bead, marble, pebble, pasta			
Year 1 Scientific enquiry skills	*Sc1/1.1* *Asking questions* *To ask simple questions and recognise that they can be answered in different ways*	*Sc1/1.2* *Observation over time* *To observe closely, using simple equipment*	*Sc1/1.3* *Comparative and fair testing* *To perform simple tests*	*Sc1/1.4* *Identifying, classifying and grouping* *To identify and classify*	*Sc1/1.5* *Pattern seeking* *To use their observations and ideas to suggest answers to questions*	*Sc1/1.6* *Research using secondary sources* *To gather and record data to help in answering questions.*
Year 2						
Science National Curriculum topic title and Collins Snap Science title **YEAR 2**	**Sc2/2.3 AUTUMN 1** **NC title: Animals including humans** **Collins title: Take care** **Key knowledge:** To know the importance of eating a range of different types of food. Sc2/2.3c To be able to describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. **Key skills:** Work scientifically by identifying and classifying food, using tables, and Venn and Caroll diagrams. Make observations and collect data while carrying out exercises, and use observations and ideas to	**Sc2/2.3 AUTUMN 2** **NC title: Animals including humans** **Collins title: Growing up:** **Key knowledge:** Sc2/2.3b Describe the basic needs of animals for survival (water, food and air) and the main changes as young animals, including humans, grow into adults. Sc2/2.3a Notice that animals, including humans, have offspring which grow into adults Know simple differences between living and non-living things. Learn the sequence of the human life cycle, first through considering how they have changed since birth.	**Sc2/2.1 SPRING 1** **NC title: Living things and their habitats** **Collins title: What is in your habitat?** **Key knowledge:** To be able to name different plants and animals and describe how they are suited to different habitats. Explore the habitat by identifying things that are living, once-lived and never-lived. Construct food chains that show how living things depend on each other. Describe how living things are suited to a particular habitat. **Key skills:** Sc2/2.1a explore and compare the differences between things that are living, dead, and things that have never been alive.	**Sc2/2.1 SPRING 2** **NC title: Living things and their habitats** **Collins title: Our Changing world** **Key knowledge:** Sc2/2.1d Further develop understanding of the different animals living in a habitat to build up simple food chains and identify and name different sources of food. Learn about animal life cycles by observing how an animal kept in the classroom changes over time and by going out to look for baby animals (use videos/images if visits are not possible). Decide what bulbs and seeds to plant (in Spring) in order to be able to make soup from the harvest (in Summer).	**Sc2/2.2 SUMMER 1** **NC title: Plants** **Collins title: The Apprentice gardener** **Key knowledge:** Learn the sequence of germination, and comparing and contrasting the requirements of germinating seeds with those of mature plants to maintain healthy growth. Learn how to grow vegetables to eat. Sc2/2.2b To be able to describe how plants need water, light and a suitable temperature to grow and stay healthy. **Key skills:** Apply what they what has been learnt from classroom investigations in a real context, to learn more about plants' need for a suitable	**Sc2/3.1 SUMMER 2** **NC title: Uses of everyday materials** **Collins title: Materials: Good choices** **Key knowledge**: To be able to use knowledge and understanding of the properties of materials, to distinguish objects from materials, identify and group everyday materials, and compare their suitability for different uses. **Key skills:** Sc2/3.1a identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for different uses Sc2/3.1b compare how things move on different surfaces. Sc2/3.1c find out how the shapes of solid objects made from some materials can be

	suggest answers to questions. Sc1/1.4 **Identifying, classifying and grouping** To identify and classify **Key vocabulary:** 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	**Key skills:** Research further changes that happen as a human baby grows and develops into and through adulthood. When comparing different stages of human life children consider growth, changes in physical appearance, movement, feeding and diet, self-care, the move from dependency to independence and parenthood (although briefly). Outcomes from enquiries, such as graphs, group answer sheets and photographs can be displayed and children should be encouraged to add comments using sticky notes, to add to the information and consolidate their understanding. **Key words:** 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	Sc2/2.1b 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 Sc1/1.1 **Asking questions** To ask simple questions and recognise that they can be answered in different ways **Key vocabulary:** 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	**Key skills:** Sc2/2.1c identify and name a variety of plants and animals in their habitats, including microhabitats. Sc1/1.2 **Observation over time** Work scientifically by making careful observations over time, using simple equipment and recording their observations in a range of different ways, and use their data to suggest answers to questions. **Key vocabulary:** Living, Dead, Habitat, Energy, Food chain, Predator, Prey, Woodland, Pond, Desert, egg, offspring, baby, adult, grow, change, habitat, food chain, tally chart, pattern, chick, calf, cub, kid and other baby animal terms, seeds, bulbs, plant, root, stem, leaf, fruit, shoot(s), bud, flower, soil, compost, manure, dig, prepare, water, watering, vegetable, herbs, names of vegetables and herbs, wash, clean, peel, cut, chop, blend, smooth, puree, heat, boil, simmer, fry	temperature and to observe plants growing to maturity. Create a floor book to track their learning you will provide them with their own reference book that they can add to and use when planning and planting their vegetable garden. Sc2/2.2a Make observations every few days in frequent short lessons. Draw conclusions from observations. Observing change over time and comparative tests; there is also identifying and classifying, pattern finding and research using secondary sources (videos). Record series of observations using labelled drawings and photographs in diaries. Use existing knowledge and observations to make predictions at the start and during investigations. Sc1/1.3 **Comparative and fair testing** To perform simple tests **Key vocabulary:** 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,	changed by squashing, bending, twisting and stretching Sc1/1.6 **Research using secondary sources** To gather and record data to help in answering questions. **Key vocabulary:** Hard, Soft, Stretchy, Stiff, Shiny, Dull, Rough, Smooth, Bendy, Waterproof, Absorbent, Opaque, Transparent Brick, Paper, Fabrics, Squashing, Bending, Twisting, Stretching Elastic, Foil. --- ***Follow on module: Collins Science – Shaping Up* (module 1):** *Understand different ways of changing the shapes of objects made from different materials.* *Identify materials that can be changed by the actions of squashing, bending, twisting and stretching, and link these actions with the properties of the materials that allow them to be changed.*

		story, stages, order, pregnancy, birth, teenager, adult, parent, elderly person, grow, measure, compare, table, scatter graph, plot, pattern, evidence, observation, question, record			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, first, next, later, after…days, order, conclusion, because	
Year 2 Scientific enquiry skills	*Sc1/1.1* *Asking questions* *To ask simple questions and recognise that they can be answered in different ways*	*Sc1/1.2* *Observation over time* *To observe closely, using simple equipment*	*Sc1/1.3* *Comparative and fair testing* *To perform simple tests*	*Sc1/1.4* *Identifying, classifying and grouping* *To identify and classify*	*Sc1/1.5* *Pattern seeking* *To use their observations and ideas to suggest answers to questions*	*Sc1/1.6* *Research using secondary sources* *To gather and record data to help in answering questions.*
Year 3						
Science National Curriculum topic title and Collins Snap Science title **YEAR 3**	Sc3/2.2 **NC title: Animals including humans** **Collins title: Amazing bodies** **Key knowledge:** To understand that the food we eat provides us with the nutrition that our bodies require to remain healthy. Sc3/2.2a To know about the range of nutrients that humans need to consume in the correct amounts and the role that these nutrients play in keeping our bodies healthy.	Sc3/4.1 **NC title: Light** **Collins title: Can you see me?** **Key knowledge:** Sc3/4.1a/b To learn about how we see objects, the ways in which different objects reflect different amounts of light and how these ideas can be applied to staying safe at night. Sc3/4.1d/e To explore what causes a shadow, as well as how the shape and size of a shadow can be affected by its position. Sc3/4.1c To learn how exposure to sunlight can	Sc3/3.1 **NC title: Rocks (Part 1: focus on Rocks and weathering)** **Collins title: Rock detectives** **Key knowledge:** To learn about how rocks are used in the local environment and suggest why the properties of certain rocks make them suitable for particular purposes. To consider how rocks are affected by weathering over time. **Key skills:**	Sc3/3.1 **NC title: Rocks (Part 2: focus on soil formation and process of fossil formation).** **Collins title: Rock detectives** **Key knowledge:** Sc3/3.1c To learn about what causes rocks to break down and become soil particles and about the organic matter that is an essential part of a healthy soil. Sc3/3.1b Discover what a fossil is and how they came to be formed from animal and plant remains. Learn the names of a variety of common fossils, and about the stages of the fossilisation process.	Sc3/2.1 **NC title: Plants** **Collins title: How does your garden grow?** Sc3/2.1a To learn about the parts of the flower, their roles in plant reproduction and the stages of the life cycle of a flowering plant (roots, stem/trunk, leaves and flowers). Sc3/2.1b To explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant. Sc3/2.1c To learn about the absorption and transport of	Sc3/4.2 **NC title: Forces and magnets** **Collins title: The power of forces** **Key knowledge:** Sc3/4.2b To learn that some forces need contact between two objects, but that magnetic forces can act at a distance. To identify that magnets attract some materials and not others and that these are known as magnetic materials. To learn that some metals, but not all, are magnetic and that all non-metals are non-magnetic.

	Sc3/2.2b To know that humans and some other animals have skeletons and muscles for support, protection and movement. **Key skills:** Ask and answer own questions about the human body and diet through classifying, pattern-seeking investigations and by carrying out research using secondary sources. Gather data and record and present these in a range of ways. **Key vocabulary:** stay alive, survive, food, balanced diet, nutrition, nutrients, fruit and vegetables, carbohydrates, protein, roughage, fibre, sugar, fat, dairy, skeleton, bones, protect, support, move, muscles, joints, ribs, heart, skull, brain, backbone, spine, spinal column, vertebrate, footprint, trail, vitamins, minerals, question, classify, investigation, survey, measure, pattern, evidence, draw conclusions	cause harm, and about ways by which they can protect themselves. **Key skills:** Ask and answer own questions about light and shadow. Investigate how some materials block more light than others. Do this through sorting objects according to how much light they block, as well as through simple shadow investigations. Develop the idea of explaining their judgements, for example why they have used a certain material for a 'safe at night' piece of clothing or a pair of sunglasses, based on data from their experiments. **Key vocabulary:** light, dark, shadow, mirror, bright, dim, reflect, eye, opaque, transparent, translucent, ultraviolet, ray, beam, absorb, luminous, non-luminous, infrared, question, investigation, fair test, change, measure, predict, prediction, explain, explanation, observations, draw conclusions	Sc3/3.1a compare and group together different kinds of rocks on the basis of their appearance and simple physical properties, such as hardness and permeability. Work scientifically to make comparisons and draw conclusions based on observations. **Key vocabulary:** sandstone, granite, chalk, limestone, marble, pumice, rough, smooth, hard, soft, rock, stone, pebble, texture, particle, crystal, granule, properties, soil, fossil,	To learn about where and how fossils can be found and safely collected. **Key skills:** Explore a variety of soils first hand, making the link between soils of different types and the rocks from which they are partly made. Test a variety of soils, including local soils, to discover whether soils of different types let water through at the same rate. Work scientifically to make comparisons and draw conclusions based on observations. **Key vocabulary:** properties, soil, clay, sandy, loam, peat, organic material, weather, weathering, frost, beach, cliff, trilobite, starfish, sea urchin, ammonite, fossil, fossilise, remains	water and nutrients and the role of the leaf in making food for the plant. Sc3/2.1d To explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. **Key skills:** Ask and answer own questions about plants through classifying, observing over time, conducting fair test investigations and using secondary sources. Make and record detailed observations using labelled and annotated diagrams. Sc3/2.1c investigate the way in which water is transported within plants **Key vocabulary:** plant, roots, stem, trunk, leaf/leaves, flower, leaflet, stalk, veins, surface, edge, lobes, tip, food, root hair, nutrients, anchor, support, seed, germination, seedling, growth, mature plant, flowering, pollination, seed formation, bud, petal, sepal, carpel, stamen, pollen, reproduce, nectar, seed, fruit, dispersal, animal, wind, water, self-dispersal, explosion, sprinkling, competition, air, light, stigma, style, ovary, anther, filament, observe, question, investigation, fair test, change, measure, predict, prediction, explanation,	Sc3/4.2e To learn that magnets have two poles and that two magnets will attract or repel each other, depending on which poles are facing. **Key skills:** Sc3/4.2a Carry out comparative and fair tests to investigate the strength of magnets and how objects move on different surfaces. Sc3/4.2c observe how magnets attract or repel each other and attract some materials and not others Sc3/4.2d compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials Sc3/4.2f predict whether 2 magnets will attract or repel each other, depending on which poles are facing. **Key vocabulary:** push, pull, twist, force, air, turns, fast, slow, slows down, material, surface, magnet, attracts, magnetic material, magnetism, acts at a distance, non-magnetic material, metal, non-metal, strength, north pole, south pole, repel, question, investigation, fair test, change, measure, predict, prediction, explanation,

					observations, draw conclusions.	observations, draw conclusions
Y3 Scientific enquiry skills	*Sc3/4/1.1* *asking relevant questions and using different types of scientific enquiries to answer them*	*Sc3/4/1.2* *setting up simple practical enquiries, comparative and fair tests*	*Sc3/4/1.3* *making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers*	*Sc3/4/1.4* *gathering, recording, classifying and presenting data in a variety of ways to help in answering questions* *Sc3/4/1.5* *recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables*	*Sc3/4/1.6* *reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions* *Sc3/4/1.7* *using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions*	*Sc3/4/1.8* *identifying differences, similarities or changes related to simple scientific ideas and processes* *Sc3/4/1.9* *using straightforward scientific evidence to answer questions or to support their findings.*
Year 4						
Science National Curriculum topic title and Collins Snap Science title **YEAR 4**	Sc4/2.1 **NC title: All Living Things** **Collins title: Human Impact** **Key knowledge:** Sc4/2.1c To learn about some of the positive and negative ways that humans change the environment, locally and globally, with a particular focus on how this affects other living things. To understand that actions can have both positive and negative consequences, that situations are not	Sc4/2.2 **NC title: Animals including humans** **Collins title: Where does all that food go?** **Key knowledge:** To know the main body parts associated with the digestive system; the mouth, tongue, teeth, oesophagus, stomach, intestines, rectum and anus. Sc4/2.2a Know the role of the digestive system is to break down the food we eat so that the nutrients,	Sc4/3.1 **NC title: States of Matter** **Collins title: In a state** **Key knowledge:** To learn the characteristic properties of solids, liquids and gases, first through physically exploring typical materials and then by classifying examples, such as powders and very viscous liquids, which are harder to classify. To learn about changes of state and begin to understand freezing and boiling points as	Sc4/3.1 **NC title: States of Matter** **Collins title: In a state** (Continued from Spring 1): **Key knowledge:** Explore the expansion of liquids and gases when they are heated, using this to make a simple thermometer and explain how it works. Learn about the water cycle, modelling it in different ways and further developing their understanding of changes of state. **Key skills:**	Sc4/4.1 **NC title: Sound** **Collins title: Good vibrations** Develop vocabulary for describing sounds and identify different sound sources. Sc4/4.1b/c Learn that sounds are made by something vibrating and that these vibrations travel through a medium to the ear so that we hear them. Sc4/4.1e Learn that sounds get fainter as the distance from the sound source increases. They will explore ways to	Sc4/4.2 **NC title: Electricity** **Collins title: Switched on** **Key knowledge:** Sc4/4.2a Identify electrical appliances, distinguishing between those which are powered by mains and battery (including those with integral rechargeable batteries) and recognising that electricity can be used to produce light, sound, heat and movement. Explore the production of light, sound and movement by making simple series circuits with cells, wires,

	black and white, and that decisions involve compromises. To consider how industry, housing and thoughtless behaviour can damage local habitats and also how humans can increase biodiversity by developing environments such as country parks and nature reserves. **Key skills:** Sc4/2.1a/b explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. To make survey data manageable and present their findings by constructing and labelling pictograms and bar charts. Present information as oral and written reports, posters and food chains. Weigh and present evidence, recognise statements that do and do not support an argument, and participate in a debate. **Key vocabulary:** Vertebrates, Fish, Amphibians, Reptiles, Birds, Mammals, Invertebrates, Snails, Slugs, Worms, Spiders, Insects,	energy and other requirements we derive from it can be used in the rest of the body. Sc4/2.2b Learn about how food can be broken down through mechanical and chemical processes. Learn in more detail about the roles of the different types of teeth in breaking food down, and how to care for their teeth. They will also learn about milk teeth and permanent teeth. There are also opportunities for children to investigate questions around toothpastes. This module also explores what animals eat and how this information can be used to build food chains. There are opportunities to explore how the teeth of animals are adapted to the type of food that they eat. **Key skills:** Sc4/2.2c Ask and answer questions about teeth, digestion and food chains (identifying producers, predators and prey) by carrying out research using secondary sources. Group and classify teeth by their function and relate this to diet. Carry out comparative and fair tests on different types of toothpaste and to	identifying characteristics of a material. To learn the names of some common gases. **Key skills:** Sc4/3.1a compare and group materials together, according to whether they are solids, liquids or gases Sc4/3.1b observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) Make careful observations and explain what they show. Observe and measure changes over time, first-hand and using secondary sources. Classify materials and record their sorting using Venn diagrams. Plan and carry out fair tests, learning to identify and control variables and drawing up tables to record their data. This will then be presented as bar or bar line graphs. Identify patterns in the data and use these to answer their investigation	Sc4/3.1c identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. Make careful observations and explain what they show. Observe and measure changes over time, first-hand and using secondary sources. Classify materials and record their sorting using Venn diagrams. Plan and carry out fair tests, learning to identify and control variables and drawing up tables to record their data. This will then be presented as bar or bar line graphs. Identify patterns in the data and use these to answer their investigation questions and to make further predictions. **Key vocabulary:** solid, liquid, hard, soft, pour, flow, pile, pool, surface, horizontal, runny, viscous, sticky, grain, powder, ice, water, temperature, cool, cooling, warm, warming, hot, degree Celsius, melt, melting, freeze, freezing, solidify, solidifying, heating, states of matter, change of state, melting point, freezing point, process, gas, air, carbon dioxide, helium,	change the pitch and volume of sounds. **Key skills:** Sc4/4.1c Find patterns between the pitch of a sound and features of the object that produced it Sc4/4.1d Find patterns between the volume of a sound and the strength of the vibrations that produced it. **Key vocabulary:** sound, loud, quiet, high, low, repeating, continuous, strike, blow, shake, pluck, vibration, vibrate, solid, gas, volume, strength of vibrations, sound source, fainter, distance, pitch, particles, question, investigation, fair test, change, measure, predict, prediction, explanation, observations, draw conclusions	bulbs, buzzers and motors, learning the names of the components. Work mostly with single components. Describe the flow of electricity round a circuit and give reasons why some circuits do not work. Learn to control their circuits with switches. They will test materials, classify them as electrical conductors or insulators and recognise that metals are good electrical conductors and plastics are good electrical insulators. Apply this knowledge when making own switches and electrical quiz boards. Throughout this module they will learn the safe use of electrical components and the dangers of mains electricity. **Key skills:** Sc4/4.2b construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. Draw labelled and annotated drawings. Sc4/4.2c identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery

	Habitats, environment, impact, positive, negative, litter, pollution, waste, biodiversity, habitat, derelict, graffiti, traffic, destroy, create, location, food chain, producer, consumer, human impact , global issue, destruction, deforestation, rainforest, climate, climate change, zoo, endangered, breed, wild, natural, predator, prey, conservation, categories, tally chart, pictogram, bar chart, axes, scale, opinion, point of view, argument, viewpoint, debate	record and present data in a range of ways. **Key vocabulary:** mouth, oesophagus, stomach, small intestine, large intestine, rectum, anus, digestive system, digestion, carbohydrate, fat, sugar, protein, roughage, dairy, fruit, vegetables, vitamins, minerals, balanced diet, healthy, mechanical process, chemical process, absorb, nutrients, water, saliva, chemicals, enzyme, teeth, canine, incisor, premolar, molar, jaw, cutting, tearing, grinding , dental hygiene, decay, dentist, brushing, toothpaste, floss, mouthwash, food, plants, animals, food chain, food web, producer, consumer, predator, prey, herbivore, omnivore, carnivore	questions and to make further predictions. **Key vocabulary:** solid, liquid, hard, soft, pour, flow, pile, pool, surface, horizontal, runny, viscous, sticky, grain, powder, ice, water, temperature, cool, cooling, warm, warming, hot, degree Celsius, melt, melting, freeze, freezing, solidify, solidifying, heating, states of matter, change of state, melting point, freezing point, process, gas, air, carbon dioxide, helium, oxygen, bubbles, empty, particle, weight, compress, squash, shape, volume, dry, evaporate, evaporation, water vapour, boil, boiling, boiling point, steam, thermometer, condense, condensation, water, droplets, cycle, model, snow, expand, scale, calibrate, heat sensitive, sensor, observe, measure, fair test, variable, collect, present, interpret, data, axis, scale, interval, control, keep the same, evidence, annotate, accuracy, describe, explain, evaluate, reliable, repeatable	oxygen, bubbles, empty, particle, weight, compress, squash, shape, volume, dry, evaporate, evaporation, water vapour, boil, boiling, boiling point, steam, thermometer, condense, condensation, water, droplets, cycle, model, snow, expand, scale, calibrate, heat sensitive, sensor, observe, measure, fair test, variable, collect, present, interpret, data, axis, scale, interval, control, keep the same, evidence, annotate, accuracy, describe, explain, evaluate, reliable, repeatable		Sc4/4.2d recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit Sc4/4.2e recognise some common conductors and insulators, and associate metals with being good conductors. **Key vocabulary:** electricity, electrical, mains, plugged in, battery, power, rechargeable, solar, wind up, sound, light, heat, movement, cell, wire, bulb, bulb holder, buzzer, motor, component, circuit, complete circuit, short circuit, flow, break, make, metal, connect, disconnect, terminal, positive, negative, switch, press switch, toggle switch, tilt switch, pendulum switch, property, electrical conductor, electrical insulator, electron, filament, sets, Venn diagram, Carroll diagram, table, conclusion, evidence, annotate
Y4 Scientific enquiry skills	*Sc3/4/1.1* *asking relevant questions and using different types of scientific enquiries to answer them*	*Sc3/4/1.2* *setting up simple practical enquiries, comparative and fair tests*	*Sc3/4/1.3* *making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment,*	*Sc3/4/1.4* *gathering, recording, classifying and presenting data in a variety of ways to help in answering questions* *Sc3/4/1.5*	*Sc3/4/1.6* *reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions* *Sc3/4/1.7*	*Sc3/4/1.8* *identifying differences, similarities or changes related to simple scientific ideas and processes* *Sc3/4/1.9*

			including thermometers and data loggers	*recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables*	*using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions*	*using straightforward scientific evidence to answer questions or to support their findings.*
Year 5						
Science National Curriculum topic title and Collins Snap Science title **Year 5**	**Sc5/2.1** **NC title: Living Things and their habitats** **Collins title: Circle of life** **Key knowledge:** Sc5/2.1a Extend understanding of what a life cycle is, and learn about the life cycles of some familiar (and some less familiar) mammals, amphibians, insects and birds. Learn about incredible journeys that some animals undertake to complete their life cycles, and about the different ways in which humans are supporting some endangered animals to increase their population numbers. Sc5/2.2a describe the changes as humans develop to old age. **Key skills:** Compare and contrast different life cycles, identifying common features as well as explaining key differences.	**Sc5/2.2** **NC title: Animals, including humans** **Collins title: Reproduction in plants and animals** **Key knowledge:** Learn that plants can reproduce in other ways, through asexual reproduction. Sc5/2.1b As they learn about reproduction in animals children will find out more about specific mammals, birds, insects and amphibians and how they reproduce. There are three lessons focusing on humans, one of which is about the complete human life cycle and two of which focus on puberty. These lessons can be taught to mixed or single gender groups, but all children should learn about changes in boys and girls **Key skills:**	**Sc5/3.1** **NC title: Properties and Changes of Materials** **Collins title: Everyday materials** **Key knowledge:** Explore familiar objects in detail and find out about accidental scientific discoveries, such as the 'non-sticky' glue developed by Spencer Silver and used in 'Post it' notes, and how properties of 'super absorbent powders' can make them useful in everyday life. **Key skills:** Sc5/3.1a To compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets Carry out comparative and fair tests to answer questions about how and why certain materials are	**Sc5/3.1** **NC title: Properties and Changes of Materials** **Collins title: Marvellous mixtures** **Key knowledge:** Sc5/3.1b know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution Sc5/3.1f explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda. **Key skills:** Plan different types of enquiries to answer questions, recognising and controlling variables where necessary. Sc5/3.1c use knowledge of solids, liquids and gases to decide how mixtures might be separated, including	**Sc5/4.1** **NC title: Earth and Space** **Collins title: Earth and beyond** **Key knowledge:** Sc5/4.1a describe the movement of the Earth, and other planets, relative to the Sun in the solar system Sc5/4.1b describe the movement of the Moon relative to the Earth Sc5/4.1c describe the Sun, Earth and Moon as approximately spherical bodies Sc5/4.1d use the idea of the Earth's rotation to explain day and night, and the apparent movement of the sun across the sky. **Key skills:** Use models for exploring and demonstrating ideas, first-hand observation made at night either in their gardens or local area, or from visits to local observatories, secondary sources of information (mainly web-based) to answer scientific questions increasingly independently, and diagrams,	**Sc5/4.2** **NC title: Forces** **Collins title: Feel the force** **Key knowledge:** Sc5/4.2a explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object Sc5/4.2b identify the effects of air resistance, water resistance, friction, gravitational attraction, upthrust and drag forces that act between moving surfaces Sc5/4.2c recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect **Key skills:** Plan and carry out fair test and pattern-seeking investigations, observe carefully, record accurate measurements, and construct different mechanisms.

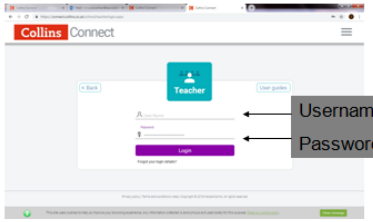
	Apply knowledge of life cycles to help them as they create a fantastical creature of their own, complete with its own distinct life cycle. **Key vocabulary:** life cycle, birth, growth, reproduction, metamorphosis, aging, death, animal, mammal, amphibian, insect, bird, elephant, toad, bumblebee, blue tit, hedgehog, bat, polar bear, mountain gorilla, cubs, pups, hibernate, nocturnal, marsupial, toad, newt, salamander, tree frog, metamorphosis, tadpole, larva, frog, toad, gills, cold blooded, ladybird, butterfly, dragonfly, head, thorax, abdomen, antennae, egg, pupa, cocoon, adult, thrush, peregrine falcon, ostrich, emperor penguin, breeding cycle, clutch, brood, hatch, fledge, prey, predator, reproduce, habitat, environment, humpback whale, blue whale, swift, osprey, wildebeest, caribou, monarch butterfly, migrate, migration, navigate, genetic, endangered, threatened, extinct, extinction, evolution, giant panda, black rhino, peregrine falcon, bumblebee,	Carry out first-hand observation of flowering and other plants, and also use secondary sources of information. Group and classify living things according to similarities in reproduction processes. Report and present findings from enquiries in a variety of ways, including posters, fact cards and guides. **Key vocabulary:** reproduction, reproduce, flower, organ, carpel, stamen, pollen, seeds, seed head, berry, fruit, pollinator, pollination, fertilisation, reproduction, reproduce, propagate, stem, leaf and root cuttings, runners, tubers, bulbs, rhizomes, gender, male, female, sex, sexual, asexual, metamorphosis, mate, sperm, pregnant, give birth, young, pup, calf, foal, chick, hatch, fledge, fledgling, Foetus, Embryo, Womb, Gestation, Baby, Toddler, Teenager, Elderly, Growth, Development, Puberty	selected and used because of their properties. **Key vocabulary:** properties, material, building, construction, structure, organic, natural, manufactured, man-made, weathering, decay, decompose, break down, brittle, fragile, metal, plastic, wood, ceramic, concrete, compare, contrast, group, organise, criteria, strong, strength, weakness, durability, wear, tear, stretch, flexible, flexibility, hardness, light, heavy, durable, durability, waterproof, washable, stain resistant, reusable, bicycle, suspension, brakes, tyre tread, saddle, weight, mass, criteria, ovenproof, heat, temperature, room temperature, thermal conductor, thermal insulator, insulate, insulation, viscosity, viscous, sticky, stickiness, tackiness, adhesive, glue, saturated, powder, particle, polymer, volume, quantity	through filtering, sieving and evaporating Sc5/3.1d give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic Sc5/3.1e demonstrate that dissolving, mixing and changes of state are reversible changes Use a range of science equipment with increasing accuracy and precision, and use a variety of ways to report and present their findings to an audience. **Key vocabulary:** material, compare, contrast, separate, mixture, sieve, filter, evaporate, solid, liquid, gas, powder, particle, dissolve, soluble, solution, contamination, contaminate, contaminated, impurity, pure, purity, suspension, saturated, saturation, reversible, non-reversible, microbes, bacteria, types of oil, liquid, solid, detergent, sticky, filter, mechanical, boom, residue, environment, biological, marine life, purify, drinkable, sterilise	charts and graphs for recording data. Report and present findings in different ways, including booklets, oral presentations and annotated diagrams, draw conclusions, identify causal relationships and explain their thinking. **Key vocabulary:** Aldebaran, Arctic, Antarctic, British Summer Time, Earth, Greenwich Meridian, International Date Line, Jupiter, Mars, Mercury, Milky Way, Moon, North Pole, Saturn, South Pole, Sun, Neptune, Universe, Uranus, Venus, asteroid, autumn, axis, compass, crescent, dawn, degrees, dusk, equator, equinox, fixed stars, Full Moon, galaxy, gibbous, hemisphere, horizon, illuminate, leap year, longitude, lunar month, meridian, nebula, New Moon, northern, orbit, planet, reflect, rotate, rotation, solar system, solstice, southern, spin, spring, star, summer, sunrise, sunset, telescope, temperature, tilt, time zone, waning, waxing, winter, year, change, compare, draw conclusions, explain, explanation, investigation, line graph, measure, model, observations, plan, predict, prediction, presentation, question, record, review, scientific diagram, table	Look at scientific ideas from the past and carry out an activity to find evidence to support or refute famous scientists' ideas. Make predictions as a result of carrying out simple activities and go on to plan new investigations. There are opportunities to develop graphing skills as well as communication and presentation skills **Key vocabulary:** air resistance, Aristotle, balanced , balanced forces, bevel gears, clockwork, cogs, compress, extend, effort, force arm, forces, force, friction, force arrow, fulcrum, gravity, Galileo, gear ratio, gears, gear trains, lever, lift, machine, mechanisms, movement, Newton, Newton meter, pinion, pivot, pulley, pull, push, rack, resistance, rotary motion, simple machines, speed, time, unbalanced force, upthrust, water resistance, weight arm, wheel

	salamander, osprey, koala bear					
Y5 Scientific enquiry skills	*Sc3/4/1.1* *asking relevant questions and using different types of scientific enquiries to answer them*	*Sc3/4/1.2* *setting up simple practical enquiries, comparative and fair tests*	*Sc3/4/1.3* *making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers*	*Sc3/4/1.4* *gathering, recording, classifying and presenting data in a variety of ways to help in answering questions* *Sc3/4/1.5* *recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables*	*Sc3/4/1.6* *reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions* *Sc3/4/1.7* *using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions*	*Sc3/4/1.8* *identifying differences, similarities or changes related to simple scientific ideas and processes* *Sc3/4/1.9* *using straightforward scientific evidence to answer questions or to support their findings.*
Year 6						
Science National Curriculum topic title and Collins Snap Science title **YEAR 6**	**Sc6/2.1** **NC title: Living Things and their habitats** **Collins title: The nature library** **Key knowledge:** Become aware of the types and characteristics of organisms that belong in each of the five kingdoms of living things (animals, plants, fungi, bacteria and Protista) and the major sub-groups the kingdoms include. Although they will devise their own systems of classification, children will Learn about how Linnaeus developed the system for classifying all living things using their observable characteristics.	**Sc6/2.3** **NC title: Evolution and inheritance** **Collins title: Everything changes** **Key knowledge:** Explore the process of selective breeding, through which humans can select particular characteristics in different plants and animals. Learn that it is a combination of inherited characteristics and the effect of environmental variables that ultimately mould the appearance and behaviour of living things through the process of natural selection**.** Sc6/2.3a recognise that living things have changed	**Sc6/2.2** **NC title: Animals including humans** **Collins title: Body health** **Key knowledge:** Learn about how to keep our bodies healthy and how our bodies might be damaged. The focus is on lifestyle choices that humans make, including diet, exercise and drug use, and how these are informed by scientific evidence. Develop a deeper understanding of what constitutes a healthy diet, through exploring food	**Sc6/2.2** **NC title: Animals including humans** **Collins title: Body pump** **Key knowledge:** Learn how the heart works, the main components of blood and the function of the different types of blood vessels. Sc6/2.2c Learn about how water is transported through the body and develop their understanding of the importance of water to human health. This module links closely with Module 3, Body Health, in which children find out how to keep their bodies healthy and about the	**Sc6/4.1** **NC title: Light** **Collins title: Light up your world** **Key knowledge:** Sc6/4.1a recognise that light appears to travel in straight lines and ray diagrams can be used to represent this. Sc6/4.1b use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye Sc6/4.1c explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes Sc6/4.1d use the idea that light travels in straight lines to explain why shadows have the	**Sc6/4.2** **NC title: Electricity** **Collins title: Danger! Low voltage** **Key knowledge:** Sc6/4.2a associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit Sc6/4.2b give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches. Key skills: Sc6/4.2c use recognised symbols when representing a simple circuit in a diagram.

	To understand the idea of how scientists use 'conventions' in order to ensure that everyone means the same thing when they refer to, for example, an organism by its scientific name. **Key skills:** Sc6/2.1a Identify how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals Sc6/2.1b give reasons for classifying plants and animals based on specific characteristics. Use a range of approaches to present and communicate their findings to others including questioning themselves and their peers, evaluating the strength of evidence used to support arguments. **Key vocabulary:** identify, identification, classify, classification, division, family, genus, species, reason, common characteristics, distinguishing characteristics, leaves, shape, size, colour, backbone, wings, jointed	over time and that fossils provide information about living things that inhabited the Earth millions of years ago Sc6/3.2b recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents Sc6/2.3c identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution and maintain population. For example: Camel, polar bear and cactus plant. **Key skills:** Analyse fossil records, which show that organisms have changed over millions of years. Carry out investigations to measure the variation between individual organisms of the same species. Model the process of dog breeding by selecting parents that have the desired characteristics for producing useful offspring, and design their own animal to suit a specific environment. **Key vocabulary:** population, variation, environment, inheritance,	groups and how the body uses them. Learn about how drugs help us as well as cause us harm. **Key skills:** Sc6/2.2b recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. Investigate food packaging to find out what snacks and drinks contain, and use this information to inform their own choices of drinks and snacks. Investigate how the results of scientific enquiries have influenced what we eat. Explore the effects of exercise on the body and develop understanding of the circulatory and respiratory systems. Investigate the effects of exercise on the pulse and its recovery rate. Find out about the training regimes of athletes and learn about special diets and training programmes. **Key vocabulary:** alcohol, asthma, athlete, balanced diet, beats per minute (bpm), benefits,	impact of diet, exercise, drugs and lifestyle. **Key skills:** Sc6/2.2a identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood**.** Describe how these work together to deliver oxygen and nutrients to every part of the body Use secondary sources in order to find answers to questions about the functions of different parts of the circulatory system that they cannot investigate. Use non-fiction books, web-based material and health education publications. Carry out and illustrate a practical activity in which they make some 'blood soup', and, in a drama activity, they will model the transport of blood and gases around the body. Show different parts of a sheep's heart, which can easily be acquired from a butcher. This can be dissected using scissors to make a demonstration lesson. You can find instructions on the CLEAPSS website. **Key vocabulary:**	same shape as the objects that cast them (pinhole camera). **Key skills:** They investigate how white light is made up of many colours of light and how these can be split apart by a prism or in a rainbow, as well as how the colours can be joined together to make white again. Carry out a fair test investigation to measure the size of shadows compared to the relative positions of the light sources, the object making the shadow and the screen. To make a periscope. **Key vocabulary:** light, dark, shadow, mirror, bright, dim, reflect, eye, opaque, transparent, translucent, ultra violet, ray, beam, refraction, periscope, spectrum, dispersion, inverted, medium, question, investigation, fair test, change, measure, predict, prediction, explanation, observations, draw conclusions	Carry out illustrative practicals, describe circuits using scientific language. Role play the flow of electricity through a basic circuit and one that includes fuse wire. Research how electricity is generated both traditionally using coal and gas, and by renewable resources, and investigate how electricity is transmitted across the country. **Key vocabulary:** cell, battery, lamp, wire, buzzer, motor, circuit, current, fi lament, electrical insulator, electrical conductor, mains electricity, terminal, switch, toggle switch, push switch, slide switch, tilt switch, trembler switch, pressure switch, reed switch, series circuit, resistance, resistor, current, circuit diagram, recognised symbols, generate, generator, coal, gas, oil, fossil fuels, nuclear, biomass fired power stations, wind turbine, wave hub, tidal flow, hydro-electric, grid, pylon, transmission, transformer, solar panels

	legs, cased, transparent, antennae, shell, segments, explain, group, small, harmful, beneficial (helpful), colony, colonies, mould, multiply, historically, grouping, Aristotle, Carl Linnaeus, kingdom, Phillip Miller, John Ray, botany, conventions **Kingdoms of living things:** Animalia, Plantae, Fungi, Protista, and Monera **Plant kingdom:** flowering plants, conifers, ferns, mosses and algae **Animal kingdom:** vertebrates, fish, amphibians, mammals, birds, reptiles, invertebrates, molluscs, annelids, arachnids, insects, arthropods **Micro-organisms:** (3 kingdoms: Fungi, Monera, Protista), micro-organisms (microbes) bacteria	adaptation, selective breeding, generation, survival, natural selection, evolution, fossils, genes, genetics, DNA, extinct, extinction, speciation, question, investigation, fair test, change, measure, predict, prediction, explanation, observations, draw conclusions	breathing, caffeine, calories, cancer, carbohydrates (including sugars), cheating, cigarettes, clinical trial, consequences, dairy, diet, doping, drugs, eat well plate, energy, exercise, fat, fibre, heart, heart rate, intensity, illegal, impact, James Lind, legal, lifestyle, long-term effect, lungs, medicine, mental benefits, mineral, motivation, norm, nutrition, oxygen, passive smoking, peer pressure, performance enhancing, persuade, physical benefits, protein, pulse rate, RDA (recommended daily allowance), recovery rate, resting rate, rickets, roughage, saturated fat, scurvy, short-term effect, smoking, sodium, solvents, steroids, tobacco, training, unsaturated fat, vitamin	aorta, artery, atrium, blood, blood vessel, body temperature, capillaries, carbon dioxide, cells, chamber, chest cavity, circulation, circulatory system, deoxygenated blood, digestive system, digestive tract, health, heart, heart valves, humans, hydration, lubricant, lungs, muscular system, nutrients, nutrition, oxygen, oxygenated blood, plasma, platelets, pump, red blood cell, skeletal, system, transport, valve, vein, vena cava, ventricle, vessel, waste, waste gases, white blood cells		
Y6 Scientific enquiry skills	*Sc3/4/1.1* *asking relevant questions and using different types of scientific enquiries to answer them*	*Sc3/4/1.4* *gathering, recording, classifying and presenting data in a variety of ways to help in answering questions* *Sc3/4/1.5* *recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and table*	*Sc3/4/1.3* *making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers*	*Sc3/4/1.2* *setting up simple practical enquiries, comparative and fair tests*	*Sc3/4/1.6* *reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions* *Sc3/4/1.7* *using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions*	*Sc3/4/1.8* *identifying differences, similarities or changes related to simple scientific ideas and processes* *Sc3/4/1.9* *using straightforward scientific evidence to answer questions or to support their findings.*

Assessment: Online Collins Snap Science assessment is completed each half term or at the end of a topic.

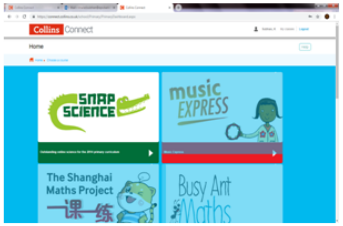


Username = your email

Password = you created

Click link:

https://connect.collins.co.uk/school/Primary/PrimaryDashboard.aspx

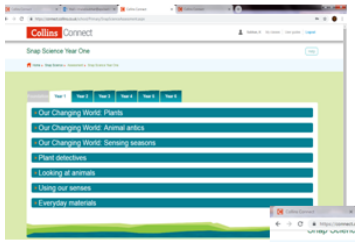


You can use this temporarily:

Username: it@eps.barking-dagenham.sch.uk

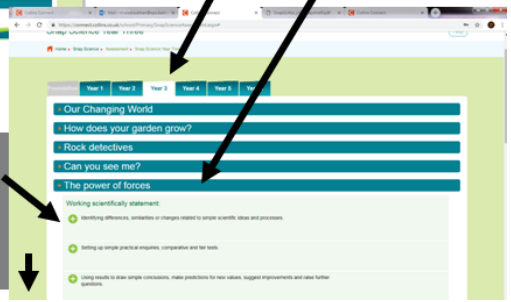
Password: Eastbury1@

SNAP SCIENCE ONLINE ASSESSMENT TASKS



Choose Year group

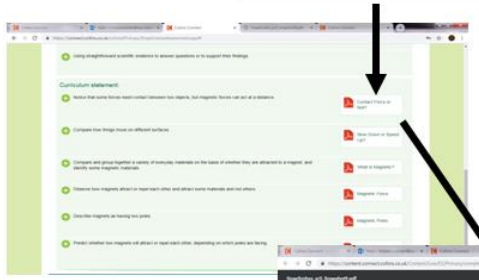
Choose topic



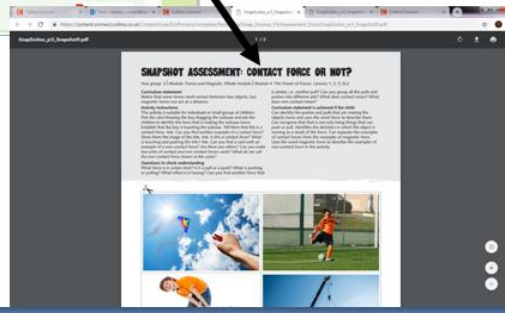
Scientific enquiry statements linked to topic.

Scroll to bottom of page to see curriculum statements and assessment sheets to do.

Assessment material (tasks)



Tasks can be done *either* end of the whole topic or mid-topic as some assessments are based on lessons taught.



Complete tasks in science books and keep evidence.

Now go into ***Online class records*** and record outcome from lessons completed and assessment tasks for all pupils.