Cledford Primary School – Science Curriculum Yearly Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS Continuous provision providing exploratory and investigative opportunities	**Animals including humans** Talk about members of their immediate family and community. Name and describe people who are familiar to them. **Specific topics:** Healthy body, Healthy Me	**Structures and materials** **Seasonal Changes** **Specific topics:** festivals and celebrations	**Living things and their habitats** Draw information from a simple map. **Seasonal changes** Understand the effect of changing seasons on the natural world around them. **Specific topic –** Spring and new life	**Living things and their habitats** Recognise some environments that are different from the one in which they live. **Specific topic –** Travel and transport (link to seasons – wellies and different footwear)	**Seasonal changes/materials/Light/forces/sound/ earth and space** Describe what they see, feel and hear while outside Explore the natural world around them **Specific topics –** Plants and growth 'How does your garden grow'	**Living things and their habitats** **Specific topics** – Animals and their habitats
Everyday EYFS science	**Daily Dashboard:** weather, seasons and months of the year **Environment:** access to different materials throughout the day (support oracy and vocabulary building)					
Year 1	**The Human Body and Senses** Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense TAPS **Body parts** (using observations)	**Seasonal changes – ongoing throughout the year** Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies TAPS **Seasonal change – ongoing** (observe over time record data) -	**Animals** Identify and name common animals including fish, amphibians, mammals, birds and reptiles (as well as carnivores, omnivores and herbivores) Compare structure of common animals (including pets) TAPS **Animal classification** (identify and classify)	**Everyday Materials** Distinguish between object and the material from which it's made Identify and name a variety of everyday materials and their simple physical properties Compare and group together everyday materials TAPS: **Floating and sinking** (plan simple tests to compare and group) **Reflectiveness** (answering questions) **Transparency** (answering questions) **Seasonal changes – ongoing throughout the year** Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies	**Plants – term topic** Identify and name a variety of common wild and garden plants Identify and describe the basic structure of flowering plants (seed planting best between late March and late May) TAPS **Leaf looking** (observing closely) **Educational Visit Link: RHS Garden Brigewater**	**Plants – term topic** Identify and name a variety of common wild and garden plants Identify and describe the basic structure of flowering plants **Seasonal changes – ongoing throughout the year** Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies TAPS **Plant structure** (observe closely over time using simple equipment)
Year 2	**Animals including humans: diet, exercise and hygiene** Describe the importance for humans to exercise, eat the right amount of different types of food and hygiene. TAPS **Compare handspans** (using observations to answer questions) **Plants – ongoing throughout the year** Planting bulbs (mini daffodils)/wild flower seeds ready for spring plants topic (before October half term) – planters outside LW's classroom to Y2 classroom	**Animals include humans: offspring and lifecycles** Notice that all animals, including humans have offspring which grow into adults Find out about basic needs of animals including humans for survival	**Everyday Materials** Identify and compare the suitability of a variety of everyday materials Find out how the shapes of some everyday materials can be changed by squashing, bending, twisting and stretching TAPS **Materials hunt** (gather and record data) **Waterproof materials** (ask and answer simple questions) **Rocket mice** (simple testing to answer questions)	**Plants** Observe and describe how seeds and bulbs grow into mature plants Find out and describe how plants stay healthy TAPS **Compare plant growth** (observe closely using simple equipment)	**Living things and their habitats** Compare differences between living, dead and never been alive Living things' habitats are suited to them TAPS **Nature spotters** (identifying and classifying) **Sorting living and non-living** (idenfiying and classifying)	**Living things and their habitats** Identify and name a variety of plants and animals in habitats including microhabitats Simple food chains TAPS **Feeding simulation** (observe closely) **Woodlice Habitat** (gather and record data) **Educational Visit link: Lion Saltworks**

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Year 3	**Rocks** Compare and group together different kinds of rocks Describe how fossils are formed Recognise that soils are made from rock and organic matter TAPS **Reporting on rocks** (reporting on finding from enquiries)	**Forces and Magnets** Compare how things move on different surfaces Notice that some forces need contact between two objects Notice that magnetic forces can act at a distance TAPS **Shoe grip** (set up simple enquiries) **Balloon rockets** (drawing simple conclusions) **Car ramps** (gather, record and present data with bar charts)	**Forces and Magnets** Observe how magnets can attract and repel each other and attract some materials but not others Compare and group together everyday materials based on whether they are attracted to magnets Describe magnets as having two poles TAPS **What is the strongest magnet?** (set up simple fair and comparative tests)	**Light** Recogise that they need light to see things and dark is the absence of light Light is reflected from surfaces Light from the sun is dangerous shadows are formed when light source is blocked by an opaque object Find patterns in how shadows change TAPS **Can everything make a shadow?** (gather and record data to answer questions)	**Plants** Identify and describe functions of different parts of a plant Explore requirements for plants to survive and how these differ from plant to plant Investigate how water is transported in plants Plant life cycle: seed dispersal, pollination and seed formation TAPS **Close observation of plants** (systematic and careful observations) **Function of a plant stem** (using scientific evidence to answer questions) **How much water do plants need?** (making systematic and careful observations and measurements)	**Animals including humans** Identify that animals, including humans, need the right types and amounts of nutrition and that they cannot make their own food Identify that humans and some other animals have a skeleton and muscles for support, protection and movement
Year 4	**Sound** Identify how sounds are made, associating some of them with something vibrating. Recognise that vibrations from sounds travel through a medium to the ear. Find patterns between the pitch of a sound and features of the object that produced it. Find patterns between the volume of a sound and the strength of the vibrations that produced it. Recognise that sounds get fainter as the distance from the sound source increases. TAPS **String telephones** (identifying similarities and differences in scientific ideas) **Investigating pitch** (asking and answering questions)	**Electricity** Identify common appliances that run on electricity. Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. 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. Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit. Recognise some common conductors and insulators, and associate metals with being good conductors. TAPS **Does it conduct electricity?** (reporting findings – drawing conclusions)	**States of matter** Compare and group materials together, according to whether they are solids, liquids or gases. 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). Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. TAPS **Measuring temperatures** (taking accurate measurements) **Drying materials** (set up a fair test)	**Animals inc humans – digestive system and teeth** Describe the simple functions of the basic parts of the digestive system in humans. Identify the different types of teeth in humans and their simple functions. TAPS **Teeth (eggs) in liquid** (drawing conclusions)	**Animals including humans – food chains** Construct and interpret a variety of food chains, identifying producers, predators and prey.	**Living things and their habitats** Recognise that living things can be grouped in a variety of ways. Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. Recognise that environments can change and that this can sometimes pose dangers to living things. TAPS **Local environment study** (gather, record and classify data)

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Year 5	<u>Forces</u> Explain that unsupported objects fall towards Earth because of gravity Identify effects of air resistance, water resistance and friction Recognise that some mechanisms, including levers, pulleys and gears allow a smaller force for a greater effect <u>TAPS</u> **Spinners** (measure taking repeated readings) **Aquadynamics** (explaining trust in results)	<u>Materials</u> Compare and group together everyday materials based on their properties Know that some materials dissolve in liquid and describe how to recover a substance from a solution Use knowledge of solids, liquids and gasses to separate mixtures <u>TAPS</u> **Champion taps** (Report and present findings from enquiries, including conclusions and explanations of degree of trust in results) **Testing nappy absorbancy** (plan with controlling variables)	<u>Materials</u> Compare and group together everyday materials based on their properties Know that some materials dissolve in liquid and describe how to recover a substance from a solution Use knowledge of solids, liquids and gasses to separate mixtures <u>TAPS</u> **Sugar stacks** (gather and record data in tables) **Insulation layers** (making predictions) **Dissolving** (plan scientific enquiry)	<u>Living things and their habitats</u> Compare life cycles of a mammal, amphibian, insect and bird Describe life process of reproduction in some plants and animals <u>TAPS</u> **Seed dispersal survey** (record data and results with increasing complexity) **Life cycle research** (report findings from enquiries)	<u>Space</u> Describe the movement of the Earth, and other planets, relative to the sun Describe the movement of the moon relative to Earth Describe the sun, moon and Earth as approximately spherical bodies Use the idea of the Earth's rotation to explain day and night <u>TAPS</u> **Craters** (gather and record data using tables and graphs) **Space research** (scientific enquiries to answer questions) **Educational Visit Link: Jodrell Bank**	<u>Animals including humans</u> Describe the changes as humans develop into old age <u>TAPS</u> **Growth Survey** (take measurements) <u>RSE – PSHE Link</u>
Year 6	<u>Electricity</u> Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches. Use recognised symbols when representing a simple circuit in a diagram. <u>TAPS</u> **Bulb brightness** (plan scientific enquiry – variables)	<u>Light</u> Recognise that light appears to travel in straight lines. 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. 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. Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them. <u>TAPS</u> **Raising and sorting light questions** (identifying scientific enquiries) **Investigating shadows** (take accurate measurements and record data on graph)	<u>Animals inc humans – circulatory system</u> Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. <u>TAPS</u> **Heart rate poses** (test results and predictions – fair and comparative testing)	<u>Living things and their habitats</u> Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals. Give reasons for classifying plants and animals based on specific characteristics. <u>TAPS</u> **Flower sampling** (plan different types of scientific enquiries) **Outdoor keys** (classification keys to record results) **Invertebrate research** (report and present findings)	<u>Animals inc humans – diet, exercise and drugs</u> Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. Describe the ways in which nutrients and water are transported within animals, including humans.	<u>Evolution and inheritance</u> Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. <u>TAPS</u> **Fossil habitats** (identifying scientific evidence) **Egg strength** (explain degree of trust in results)
Whole school				**British Science Week - March**	**Outdoor Classroom Day**	