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| C:\Users\LGregory2\OneDrive\Documents\Desktop\Federation logo 7 (2).png | Year of cycle | Autumn | Spring | Summer |
| **A**  **2022/2023**  **C**  **2024/2025** | | **LKS2 – Sound and Light**  - Setting up simple practical enquiries, comparative and fair tests  - Making systematic and careful observations and taking measurements  - Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions  - Recording findings using drawings, labels, charts and diagrams  - Reporting and presenting findings from enquiries  - Using evidence to answer questions and support findings  - Recognising that we need light in order to see things and dark is the absence of light  - Noticing that light is reflected from surfaces  - Recognising that light from the sun can be dangerous and how to protect our eyes  - Recognising that shadows are formed when the light from a light source is blocked by a solid object  - Finding patterns in the way that the size of shadows change  - Identifying how sounds are made  - Recognising that vibrations from sounds travel through a medium to the ear  - Finding patterns associated with pitch and volume  - Recognising that sound gets fainter as distance from the source increases.  **UKS2 – Light and Evolution and Inheritance**  -Explaining how the eye works and how we see objects.  -Showing how light travels in straight lines and faster than sound.  -Seeing how light is reflected and how different colours of light are created.  -Making shadow puppets and find out about the ray model.  -Investigating how car mirrors help us see things and explore the relationship between light source, objects and shadows (size and distance)  -Explaining how periscopes work and researching telescopes, binoculars, magnifying glasses etc  -Finding out about Helen Keller/Braille  - Recording data and results of increasing complexity  - Reporting and presenting findings from enquiries  - Identifying scientific evidence that has been used to support or refute ideas and arguments  - Recognising that living things have changes over time and that fossils provide information about living things that inhabited the Earth millions of years ago  - Recognising that living things product offspring of the same kind, but normally offspring vary and are not identical to their parents  - Identifying how animals and plants are adapted to suit their environment and this sometimes leads to evolution. | **LKS2 – States of Matter**  - Asking relevant questions and using different types of scientific enquiries to answer them  - Setting up simple practical enquiries, comparative and fair tests  - Recording findings using drawings, labels, charts and diagrams  - Reporting and presenting findings from enquiries  - Identifying differences and similarities  - Making systematic and careful observations and taking measurements  - Using results to draw simple conclusions  - Comparing and grouping materials according to whether they are solids, liquids or gases  - Observing that some materials can change state when they are heated or cooled and measuring the temperature at which this happens  - Identifying the part played by evaporation and condensation in the water cycle and associating the rate of evaporation with temperature.  **UKS2 – Properties and Changes of Materials**  - Planning different types of scientific enquiries to answer questions  - Controlling variables  - Reporting and presenting findings from enquiries  - Comparing and grouping materials based on their properties  - Dissolving and recovering materials using filtering, sieving and evaporating  - Demonstrating that dissolving, mixing and changes of state are reversible changes  - Giving reasons, based on evidence, for the uses of everyday materials including metals, wood and plastic  - Explaining that some changes result in the formation of new materials. | **LKS2 – Health, Movement, Eating and Digestion**  - Asking relevant questions and using different types of scientific enquiries to answer them  - Setting up simple practical enquiries, comparative and fair tests  - Recording findings using drawings, labels, charts and diagrams  - Reporting and presenting findings from enquiries  - Identifying differences and similarities  - Using evidence to answer questions and support findings  - Describing simple functions of the basic parts of the digestive systems in humans  - Identifying the different types of teeth in humans and their simple functions  - Constructing food chains and identifying producers, predators and prey  - Identifying that animals, including humans, need the right types and amount of nutrition from what they eat – Exploring human and other animals’ skeletons and muscles and their functions.  **UKS2 – Changes from Birth to Old Age and Healthy Bodies**  - Planning different types of scientific enquiries to answer questions  - Controlling variables  - Taking measurements  - Recording data and results of increasing complexity using diagrams, scatter graphs and tables  - Using test results to make predictions  - Reporting and presenting findings  - Identifying scientific evidence that has been used to support or refute ideas or arguments  - Describing the changes as humans develop to old age  - Identifying and naming the main parts of the human circulatory system and the functions of the heart, blood vessels and blood  - Recognising the impact of diet, exercise, drugs and lifestyle on the way the body functions  - Describing the ways in which nutrients and water are transported within animals, including humans |
| **B**  **2023/2024**  **D**  **2025/2026** | | **LKS2 - Living Things and their Habitats and How Plants Grow**  - Asking relevant questions and using scientific enquiries to answer them  - Setting up simple practical enquiries, comparative and fair tests  - Gathering, recording, classifying and presenting data and findings  - Reporting on findings  - Identifying differences and similarities  - Using evidence to answer questions and support findings  - Using results to draw simple conclusions  - Using classification keys to group, identify and name living things  - Looking at changing environments and the dangers they pose to living things  - Functions of different plant parts  - What plants need to grow  - Pollination, seed formation and seed dispersal.  **UKS2 - Classifying Organisms and Life Cycles**  - Identifying scientific evidence that has been used to support or refute ideas or arguments  - Recording data and results of increasing complexity  - Reporting and presenting findings from enquiries  - Describing differences in the life cycles of different types of animals  - Describing the life process of reproduction in some plants and animals  - Classifying animals, micro-organisms, and plants based on observable characteristics and giving reasons for this, | **LKS2 – Rocks**  - Asking relevant questions and using scientific enquiries to answer them  - Setting up simple practical enquiries, comparative and fair tests  - Gathering, recording, classifying and presenting data and findings  - Reporting on findings  - Identifying differences and similarities  - Using evidence to answer questions and support findings  - Using results to draw simple conclusions  - Comparing and grouping rocks based on their appearance and physical properties  - Describing how fossils are formed  - Recognising that soils are made from rocks and organic matter.  **UKS2 – Earth and Space**  - Identifying scientific evidence that has been used to support or refute ideas or arguments (Geocentric and Heliocentric models)  - Describing the movement of the Earth and other planets relative to the Sun  - Describing the movement of the moon relative to the Earth  - Describing the Sun, Earth and moon as approximately spherical bodies  - Using the idea of the Earth’s rotation to explain day and night  - Identifying the 8 planets in our solar system. | **LKS2 - Electricity and Forces**  - Asking relevant questions and using scientific enquiries to answer them  - Setting up simple practical enquiries, comparative and fair tests  - Reporting on findings  - Using evidence to answer questions and support findings  - Using results to draw simple conclusions  - Identifying appliances that run on electricity  - Constructing simple series circuits, and naming the basic parts  - Identifying whether a lamp will light or not based on whether or not the lamp is part of a complete loop with a battery  - Opening and closing circuits with switches  - Recognising conductors and insulators  - Comparing how things move on different surfaces  - Exploring forces between two objects and magnetic forces at a distance  - Repelling and attracting, poles of magnets.  **UKS2 – Electricity and Forces**  - Planning different scientific enquiries  - Controlling variables  - Recording data  - Reporting and presenting findings  - Voltage of cells and the effect these have on bulbs and buzzers  - Comparing and giving reasons for variations in how components function (including bulbs, buzzers and switches)  - Using recognised symbols when representing a simple circuit in a diagram  - Explaining that unsupported objects fall towards the Earth because of gravity  - Identifying the effects of air resistance, water resistances and friction  - Exploring how some mechanisms allow smaller forces to have a greater effect. |