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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. |