Science LTP Puffin Class
Switched On Science Curriculum Scheme
From September 2023 onwards

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Puffin Class	**Year 4 Topic 4** Teeth and Eating **Year 5 Topic 5** Growing Up and Growing Old	**Year 4 Topic 5** Power It Up	**Year 4 Topic 1** What's That Sound?	**Year 4 Topic 3** Looking At States	**Year 5 Topic 2** Material World **Year 5 Topic 6** Amazing Changes	**Year 5 Topic 4** Let's Get Moving

National Curriculum Coverage through each SwitchedOn Science Topic

Puffin Class		WORKING SCIENTIFICALLY
AUTUMN 1 **Year 4 Topic 4** **Teeth and Eating** (c4 weeks) **Year 5 Topic 5** **Growing Up and Growing Old** (2 weeks max)	**YEAR 4 ANIMALS, INCLUDING HUMANS** **(c4 weeks)** -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 -construct and interpret a variety of food chains, identifying producers, predators and prey **YEAR 5 ANIMALS, INCLUDING HUMANS** **(2 weeks max – also covered through RSE)** -describe the changes as humans develop to old age	**LKS2** -asking relevant questions and using different types of scientific enquiries to answer them -setting up simple practical enquiries, comparative and fair tests -gathering, recording, classifying and presenting data in a variety of ways to help in answering questions -recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables -reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions -using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions -identifying differences, similarities or changes related to simple scientific ideas and processes
AUTUMN 2 **Year 4 Topic 5** **Power It Up**	**YEAR 4 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	
SPRING 1 **Year 4 Topic 1** **What's That Sound?**	**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	-using straightforward scientific evidence to answer questions or to support their findings. **UKS2** -taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
SPRING 2 **Year 4 Topic 3** **Looking at States**	**YEAR 4 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	
SUMMER 1 **Year 5 Topic 2** **Material World** **Year 5 Topic 6** **Amazing Changes**	**YEAR 5 PROPERTIES AND CHANGES OF MATERIALS** -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 -know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution -use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating -give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic -demonstrate that dissolving, mixing and changes of state are reversible changes -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	
SUMMER 2 **Year 5 Topic 4** **Let's Get Moving**	**YEAR 5 FORCES** -explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object -identify the effects of air resistance, water resistance and friction, that act between moving surfaces -recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect	
John Muir Award (Coverage of Living Things and Their Habitats during this class)	**YEAR 4 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 **YEAR 5 LIVING THINGS AND THEIR HABITATS** -describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird -describe the life process of reproduction in some plants and animals	