

Sytchampton Science
Curriculum Pathway

Key Stage 1: Years 1 and 2		
	Cycle A	Cycle B
Autumn 1	<p>Plants: Introduction to Plants Naming, sorting and classifying different common plants and trees Investigating what plants need to grow</p>	<p>Animals Including Humans: Sensitive Bodies Investigating senses and considering how our senses help us to interact with the world Making observations and spotting patterns Considering how science supports people with impaired senses and how senses are used for different jobs.</p>
Autumn 2	<p>Forces Earth and Space: Seasonal Changes Learning about the seasons and how seasonal changes affect trees, daylight hours and our choices about outfits. Planning and making weather reports</p>	<p>Materials: Everyday Materials Exploring the environment to identify objects and materials and know the difference Collect and record data and use this to answer questions and sort and group materials based on their properties</p>
Spring 1	<p>Living Things and Their Habitats: Habitats: Learning about life processes and how to classify alive, was once alive and has never been alive. Finding out what plants and animals live in different global habitats. Considering what living things need to stay healthy and grow and creating food chains.</p>	<p>Animals Including Humans: Comparing Animals Classifying and comparing animals based on common characteristics and physical features Comparing dietary habits of animals Collecting and recording data Learn about how people have researched animals in the wild</p>
Spring 2	<p>Animals including Humans: Life Cycles and Health Learning about what animals need to survive and how they change over time Collecting data and observing changes Understanding how science helps people to make healthy choices</p>	<p>Materials: Uses of Everyday Materials Building on prior knowledge exploring how the shape of solid objects can be changed Considering how materials are suited to certain uses Learning about how plastic affects our environment</p>
Summer 1	<p>Plants: Plant Growth Using comparative tests to study plant growth Gathering and recording data Drawing conclusions about what plants need to grow</p>	<p>Living Things and Their Habitats: Microhabitats Understanding how scientists use a range of skills to answer questions Investigating where mini-beasts live Carrying out surveys and asking scientific questions Exploring the role of a botanist</p>
Summer 2	<p>Making Connections A unit of work in which children make connections between prior learning and new learning to reinforce key concepts and skills.</p>	<p>Making Connections A unit of work in which children make connections between prior learning and new learning to reinforce key concepts and skills.</p>

From Kapow Science Mixed Age Planning

Key Stage 2: Years 3 and 4

Cycle A		Cycle B
Autumn 1	<p>Energy Light and Shadows</p> <p>Learning about light sources, that darkness is the absence of light and how shadows are made. Learning that light is needed to see. Using learning to create shadow puppets.</p>	<p>Forces, Earth and Space Forces and Magnets</p> <p>Learning about friction through investigating the movement of vehicles on different surfaces. Learning about contact and non-contact forces. Exploring properties and uses of different magnets.</p>
Autumn 2	<p>Animals including Humans Movement and Nutrition</p> <p>Comparing the human skeleton with that of other animals and learning the names of key bones in the human body. Learning about how muscles move the body and how this knowledge has been used in prosthetic limb development. Considering energy use and balanced diet.</p>	<p>Materials States of Matter</p> <p>Learning about the different states of matter; solid, liquid and gas. Investigating changes of state and the impact of different temperatures on evaporation. Applying this learning to the water cycle.</p>
Spring 1	<p>Materials Rocks and Soil</p> <p>Classifying rocks through their properties and identifying how they were formed and how they can be used. Looking at the work of palaeontologists and what fossils tell us. Exploring soil formation, separating soil and testing soil drainage.</p>	<p>Materials Sound and Vibrations</p> <p>Exploring different ways of producing sounds. Learning about the relationship between vibrations and what we hear. Learning about how sound travels between objects and how insulation affects this. Making their own musical instruments to explore how pitch and volume can be changed.</p>
Spring 2	<p>Animals, including Humans Digestion and Food</p> <p>Understanding and investigating teeth and the digestive system. Linking learning about teeth to knowledge of predators and food chains. Investigating what animal faeces can tell us about diet.</p>	<p>Energy Classification and changing habitats</p> <p>Creating classification keys to group living things Studying how habitats change over time and the impact that humans can have, to understand conservation.</p>
Summer 1	<p>Energy Electricity and Circuits</p> <p>Learning about working safely with electricity and building circuits. Investigating conductors and insulators. Understanding scientific progression through historical discoveries</p>	<p>Living Things and Their Habitats Plant reproduction</p> <p>Naming and describing the functions of parts of a plant. Investigating how water is transported in plants and what affects their growth. Learning about and modelling seed dispersal.</p>
Summer 2	<p>Making Connections</p> <p>A unit of work in which children make connections between prior learning and new learning to reinforce key concepts and skills.</p>	<p>Making Connections</p> <p>A unit of work in which children make connections between prior learning and new learning to reinforce key concepts and skills.</p>

From Kapow Science Mixed Age Planning

Key Stage 2: Years 5 and 6

Cycle A		Cycle B
Autumn 1	<p>Materials Mixtures and Separation</p> <p>Exploring how to separate different mixtures. Identifying different solutions and exploring the impact of temperature on dissolving. Designing and creating a water filter.</p>	<p>Living Things and Their Habitats Life Cycles and Reproduction</p> <p>Learning about the importance of reproduction in life cycles. Comparing sexual and asexual reproduction in plants. Comparing life cycles of different groups of animals and investigating the affects of predation and climate change.</p>
Autumn 2	<p>Materials Properties and Changes</p> <p>Finding out how hardness, transparency and conductivity influence the uses of materials. Comparing reversible and irreversible changes.</p>	<p>Forces, Earth and Space Unbalanced Forces</p> <p>Exploring gravity, water resistance and air resistance and the effect of unbalanced forces. Testing ideas using models and creating their own pulley system.</p>
Spring 1	<p>Forces, Earth and Space Earth and Space</p> <p>Learning the names and movements of some of the key celestial bodies in our Solar System. Making models to represent the relationship between the earth's rotation and daylight. Making sundials and learning about how our understanding of the universe has changed over time.</p>	<p>Living Things and Their Habitats Classifying Big and Small</p> <p>Building on prior knowledge of classification and learning about the binomial and Linnaean systems. Using and producing classification keys to sort and identify organisms.</p>
Spring 2	<p>Animals, including Humans Circulation and Health</p> <p>Learning about the role of the heart, blood and blood vessels and creating models. Understanding about the impact of healthy lifestyle choices. Designing an investigation into heart rate and exercise.</p>	<p>Energy Circuits Batteries and Switches</p> <p>Drawing conventional circuit diagrams and using models to explain current, resistance and voltage. Comparing the effect of different batteries. Applying knowledge to design and produce their own devices.</p>
Summer 1	<p>Energy Light and Reflection</p> <p>Learning that light travels in a straight line, how our eyes allow us to see. Investigating shadows and the laws of reflection. Applying knowledge to real life uses of mirrors.</p>	<p>Living Things and Their Habitats Evolution and Inheritance</p> <p>Learning about inherited and environmental characteristics. Exploring natural selection and the theories behind it. Learning how species evolve over time and what fossils can tell us about this.</p>
Summer 2	<p>Making Connections</p> <p>A unit of work in which children make connections between prior learning and new learning to reinforce key concepts and skills.</p>	<p>Animals, including Humans Human Timeline</p> <p>Learning about human development and changes including how to use data to assess growth, how puberty affects boys and girls and how gestation periods differ across mammal species.</p> <p>Making Connections</p> <p>A unit of work in which children make connections between prior learning and new learning to reinforce key concepts and skills.</p>