Long Term Plan: Science Cycle A: 2022 - 2023											
	Autumn 1	Autumn 2	Spring 1		Spring 2		Summer 1	Summer 2			
Reception	Children learn about the natural	Marvellous Machines Children explore the world and objects around them investigating vehicles and ramps and how machines are powered by electricity.	Children lea ha <mark>ve</mark> growr the <mark>y w</mark> ere bal	ong Ago arn about how they and changed since bies, how the weather over the seasons.	Ready Steady Grow Children learn about food and farming including where food comes from, what plants and animals need to grow and survive and what constitutes a healthy lifestyle.		Animal Safari Children learn about the ani that live around the world, h look after animals and th importance of caring for our and global environment	ow tothings that are found at anecontrasting habitat (beach) and thelocalimportance of staying safe in the			
Year1&Year2	Uses of everyday materials Properties: transparent / opaque reflective / non reflective rough / smooth stretchy / stiff		Animals Including Humans (Y2.) Know that animals/humans produce offspring, they have basic needs for survival and humans need exercise, to eat healthily and have good hygiene to stay healthy.		Y1/2 Plants (Y1/2) Name trees, know their structure and observe how they change.		Plants (Y1/2) Know their structure and gro and/or vegetables from seed know what conditions they n stay healthy.	s, and keep them alive and healthy and			
		Seasonal Changes Observe and talk about changes in the weather and the seasons									
Year 3 & Year 4	Animals Including Huma (Y4) Know that animals and humans get nutrients from food they eat, know t main body parts associated with the digestive system and explore questio that help to understand their specia functions.	MS Explore a variety of everyd, and develop simple descrip states of matter (solids hold liquids form a pool not a escape from an unsealed Observe water as a solid, a gas and observe the chang	States of Matter (Y4) Explore a variety of everyday materials and develop simple descriptions of the states of matter (solids hold their shape; liquids form a pool not a pile; gases escape from an unsealed container). Observe water as a solid, a liquid and a gas and observe the changes to water when it is heated or cooled.		Sound (Y4) Explore and identify the way sound is made through vibration in a range of different musical instruments from around the world; and find out how the pitch and volume of sounds can be changed in a variety of ways.		cctricity (Y4) simple series circuits, trying rent components, e.g. rs, motors and switches, and suits to create simple devices. the circuit as a pictorial representation.	Living Things and their Habitats (Y4) Learn about plants and animals in their habitat observing how it changes over the year. Explore ways of grouping animals and non- flowering/ flowering plants. Begin to group vertebrate animals into; and invertebrates into snails and slugs, worms, spiders, and insects.			
γ	Living Things and their Habitats (YA) Learn about plants and animals in their habitat observing how it changes over the year.										
Year 5 & Year 6	Forces (Y5) Explore falling objects, ask questions abd and explore the effects of air resistance observing how different objects fall. Experience forces that make things begin move, get faster or slow down and explo the effects of friction on movement, find out how it slows or stops moving object Explore the effects of levers, pulleys ar simple machines on movement.	by Puberty should be taught to Physical Health and Mental we this topic Draw a timeline to indicate growth and development of ts. Understand how the circula	Y5s as part of ellbeing before stages in the of humans. itory system n and how to nd how their	Mate Properties of m compare the prope materials, includin they learnt about m	and Changes of rials (Y5) naterials: Explore and erties of a broad range of ag relating these to what magnetism in Year 3 and ctricity in Year 4.	Using a m explain importance what the mo	odel of the Sun and Earth, day and night, know the of the Sun its planets. Know pon is and find out about the about the solar system have developed.	Light (Y6) Build on the work on light in year 3, explore the way that light behaves, including light sources, reflection and shadows. Talk about what happens and make predictions.			

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	Long Term F	Plan: Science				Cycle -	<b>B:</b> 2023 - 2024	
	Autumn 1	Autumn 2	Spring 1	Sprin	92	Summer 1	Summer 2	
Reception	environment, naming and Chil	drvellous Machines dren explore the world and ts around them investigating vehicles and ramps.	Long Ago Children learn about how the grown and changed since the babies, how the weather cha over the seasons.	y were comes from, wh	bout food and ng where food nat plants and row and survive sutes a healthy	Animal Safari Children learn about the an that live around the world, to look after animals and importance of caring for our and global environment	howthings that are found at athecontrasting habitat (beach) andlocalthe importance of staying safe in	
Year 1 & Year 2	Animals Including Humans (Y1) Understand how to take care of animals from their local environment and the need to return them safely after studying them, become familiar with the common names of some fish, amphibians, reptiles, birds and mammals, including pets and learn the names of the main body parts.				1/2)	Plants (Y1/2) Name, grow from seeds and bulbs and observe how flowers change, know their structure and what conditions they need to stay healthy.		
Year 3 & Year 4	Animals including Humans (Y3) Continue to learn the importance of nutrition, how animals get nutrition from what they eat and know the main body parts associated with the skeleton and muscles and find out how different parts o the body have special functions.	Light (Y3) Explore what happens wh reflected off a mirror or surface, the importance of our eyes from bright lights, how shadows are made, m	en light is eflective protecting understand easure and ie sizes of	Rocks (Y3) Linked with Geography work, investigate different kinds of rocks and soils in the local environment.		the seasons. <b>Ad Magnets (Y3)</b> t magnetic forces can act contact, unlike most forces, c contact is necessary and naviour and everyday uses of nets. Compare how objects n different surfaces.	<b>Plants (Y3)</b> Know the parts of plants and their functions and investigate requirements for life and growth. Gather evidence of life cycles and the part flowers play in the life cycle of flowering plants including pollination, seed formation and dispersal.	
Year 5 & Year 6	Y5 Properties and Changes of Materials Changes of materials: Explore reversible changes and changes that are difficult to reverse		5) but the local the year. a variety of e vegetable d animals in g	Things and their bitats (YG) ue to learn about the system, grouping observed roups and sub-groups and give reasons.	Evolution and Inheritance (YG) This must be taught after Y5 LTH Know how living things on Earth have changed over time, how parental characteristics are passed on to offspring and how variation in offspring over time can make animals more or less able to survive in particular environments.		Electricity (YG) Building on work in Y4, construct simple series circuits, to help answer questions about what happens when different components are added to the circuit. Represent a simple circuit in a diagram using recognised symbols.	

Applegarth Primary School

VEMS Hand

Subject Lead: Mrs C Crossley