How can science educate		and entertain us?	L earning Journey	
			E ngaging	
			A uthentic	
			R igorous	
	and Magnets	Motor Switch (of) Switch (or)	N ova Curriculum	
Year 3	Terms 3 - 4	Big concept: Cause	e & Effect	
Overview:	Overview:			
 As Readers, class texts have been carefully selected to enrich children's learning. Children will read The Wild Robot (Peter Brown). As Writers, Year 3 children will develop their skills by innovating and inventing a range of fiction and non-fiction texts. There are also several meaningful opportunities for cross-curricular writing. As Artists, Year 3 children will be inspired by significant artists to create portraits of significant scientists (including significant women in science) using form, line, pattern, geometry and tonal shading/ tints and shades. 				
Learning links (previous learning):		Celebrating diversity and inspirational People:		
Year 3 children know that scientists ask questions about the world and conduct scientific enquiries to discover factual information. They know that materials have different properties and can identify and compare the suitability of everyday materials for particular uses. As Engineers, Year 3 children know that they can find solutions to different problems using the D&T process. They know ways to make a structures more stable for example, widening the base. As Artists, Year 3 children can draw from direct observation and apply colour, line, pattern, tone, shape and form.		Through the enquiry, Year 3 children will explore a diverse Curie, Sir Isaac Newton and Nikola Tesla.	range of significant scientists including Marie	
Launch and Landings		Experiential learning opportunities:		
Launch: Year 3 children will engage in a games day where they are entertained by a range of magnetic and simple electrical circuit games.		Year 3 children will engage in a Forces and Magnets works	nop at We the Curious.	
Landing : Year 3 children will host a games exhibition where others can be entertained by their magnetic and simple electrical circuit toys/games.				

NC Objectives – Skills, knowledge and vocabulary taught through Line of Enquiry				
Science				
As Scientists we will investigate how magnetic and simple electrical circuit toys/games function. Forces & Magnets Compare how things move on different surfaces	 Through scientific enquiry, we will be: Pattern seeking Asking relevant questions and using different types of scientific enquiries to answer them Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar 			
 Notice that some forces need contact between two objects, but magnetic forces can act at a distance. Observe how magnets attract or repel each other and attract some materials and not others. Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials. Describe magnets as having two poles. Predict whether two magnets will attract or repel each other, depending on which poles are facing. 	 charts and tables <u>Comparative and fair testing</u> Asking relevant questions and using different types of scientific enquiries to answer them Setting up practical enquires, comparative and fair tests Reporting on findings from enquires, 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 Researching using secondary sources 			
 Key vocabulary: push, pull, gravity, magnetic, attract, repel, magnetic pole, friction, resistance 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. Key vocabulary: appliance, circuit, battery, cell, bulb, wire, motor, buzzer, switch, conductor, insulator 	Using straightforward scientific evidence to answer questions or to support their findings			

Design & Technology	Art	
 As Designers and Engineers we will research, design and evaluate their own magnetic and simple electrical circuit toys/games. Design, Make, Evaluate And Improve Investigate existing products, including drawing them to analyse and understand how they are made. Gather info about the needs & wants of particular groups. Plan a sequence of actions to make a product. Develop more than one design. Develop prototypes. Generate designs with annotated sketches Refine work and techniques as work progresses, continually evaluating the product design. Identify strengths and weaknesses of their design ideas. Talk about how closely their finished product meets their design criteria and meets the need of the user 	As Artists we will draw portraits of significant, diverse scientists. Art & Design Skills: • Draw from direct observation applying geometry and tonal shading • Paint from direct observation applying greater expression and creativity Formal elements of Art • Colour - mix and apply colour (including natural pigment) • Colour - use aspects of colour such as tints and shades • Form - represent 3D forms • Line: - draw and describe organic and geometric forms through different types of line • Pattern - construct a variety of patterns through different methods • Shape - identify, draw and label shapes within images and objects • Texture - analyse and describe texture within artists' wore • Tone - use simple shading rules	
 Construction – Electronics Create series and parallel circuits. Strengthen frames using diagonal struts. Construction - Materials Cut materials accurately and safely by selecting appropriate tools. Measure and mark out to the nearest mm. 	 <u>Generating Ideas</u> Use my sketchbooks to generate ideas, record thoughts and observations as well as artistic experiments Create personal artwork using the artwork of others to as a stimulus Key artists: Cueva De Las Manos, Louis Masai, Jane Perkins Danai Gkoni, Ka Van Haasteren Key vocabulary: colour, line, pattern, tone, shape, form, tone, shading, shading grip, wire techniques, 	
 Take inspiration from design throughout history: Disassemble products to understand how they work. Improve on existing designs, giving reasons for choices. Identify some of the great designers in different areas of study to generate ideas from their designs Key vocabulary: series, parallel, circuit, strengthen, diagonal, strut	History History As Historians we will: <u>Chronological Awareness</u> • Continue to develop chronologically secure knowledge of history time periods studied. Geography	
	As Geographers we will: <u>Human & Physical Geography</u> Identify how the human features of a landscape have changed over time	

Opportunities for core subject learning across the curriculum				
Reading & Writing	Mathematics			
As Readers we will read: Shared fiction text: The Wild Robot (Peter Brown)	 As Mathematicians we will develop our understanding of: Number: Multiplication and Division Measurement: Length & Perimeter 			
As Writers we will write:	 Number: Fractions Measurement: Mass and Capacity 			
Fiction: Elf RoadNon-Fiction Recount:Story Type: Portal StoryThe New WorldFocus: CharacterThe New World				
Fiction: King of the Fishes Non-Fiction Recount: Story Type: Wishing Fantastic Fish for Sale Focus: Action Cross curricular writing: Vear 3 children will write a scientific report as well as a fact files and educationments				

Discrete subject teaching - Skills, knowledge and vocabulary taught discretely			
Physical Education	PSHE		
As fit and healthy citizens we will develop our skills through the Get Set 4 PE scheme:	As fit and healthy citizens we will develop our knowledge through the SCARF scheme:		
Ultimate Frisbee	Keeping Myself Safe		
• Yoga	Rights and Responsibilities		
Basketball			
Dance			
Computing	French		
In computing we will develop skills through the <i>Teach Computing</i> scheme:	As Linguists we will develop skills through the Language Angles scheme:		
Desktop Publishing	• Fruit		
Branching Databases	Instruments		
RE	Music		
As Philosophers we will explore the question:	As Musicians we will develop our musical skills and knowledge through Beacon Bristol scheme:		
• Why are festivals important to religious communities? <i>e.g. Passover</i>	Composition unit - Unit 1 Air		