

East Midlands Academy Trust





Why Teach Science?

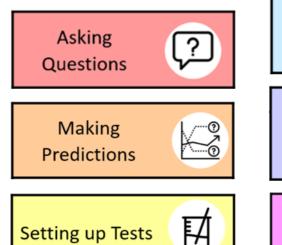
We believe that Science will allow pupils to make informed decisions and choices throughout their lives. By fostering and maintaining a curiosity throughout their education, our pupils will be able to:

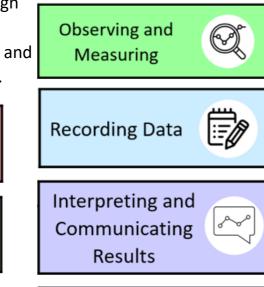
- Understand how the world around them works
- Adapt to a life in a modern world
- Experience and share the cultural capital that Science provides
- Show resilience when solving problems
- Decipher fact from fiction by learning how to look for reliable sources of information.

Working Scientifically

Our curriculum details the scientific enquiry skills involved in the processes of science, including an understanding that questions are

fundamental alongside the design of experiments; reasoning and arguing with scientific evidence and analysing and interpreting data.





Evaluating

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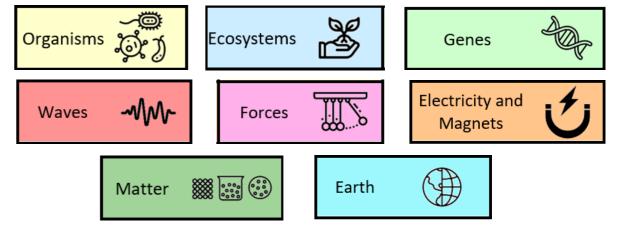
Key Vocabulary

'Rocket Words' are identified for each unit. These are displayed in a table so pupils and teachers can make connections and revisit vocabulary from previous years/units.

E.	Science Rocket Words				
	Year 1	Year 2	Year 3		
	Animals Including Humans (About Me)	Living Things and Their Habitats	Rocks		
	senses- sight, taste, touch, smell, hearing	habitat	metamorphic rock		
7	organs	desert	igneous rock		
Ē	exercise	living	sedimentary rock		
Autumn	healthy	producer	extinct		
1	design	root vegetable	weathering		
	baby	Food chain	acid rain		
	grow	excrete	fossil		
	bones	microhabitat	mineral		
	Everyday Materials (Exploring)	Animals Including Humans (Growth)	Animals Including Humans (What Makes us)	Hurr	
	flight	birth	skeleton		
2	structure	growth	tendon		
Ē	transparent	reproduction	ligament		
Autumn	opaque	death	cartilage		
<	translucent	life cycle	involuntary muscles		
	flexible	generation	voluntary muscles		
	rigid	child	contract and relax		
	oil	adult	vertebrae		
	Everyday Materials (Uses)	Plants	Forces and Magnets	l (Nat	
	magnet	germinate	lodestone		
1	metal	nutrient	horseshoe magnet		

The 8 Big Ideas of the Science Curriculum

Curriculum maps detail the sequencing of substantive knowledge from the disciplines of biology, chemistry and physics to enable pupils to build schemata of important concepts over time through eight 'big ideas'



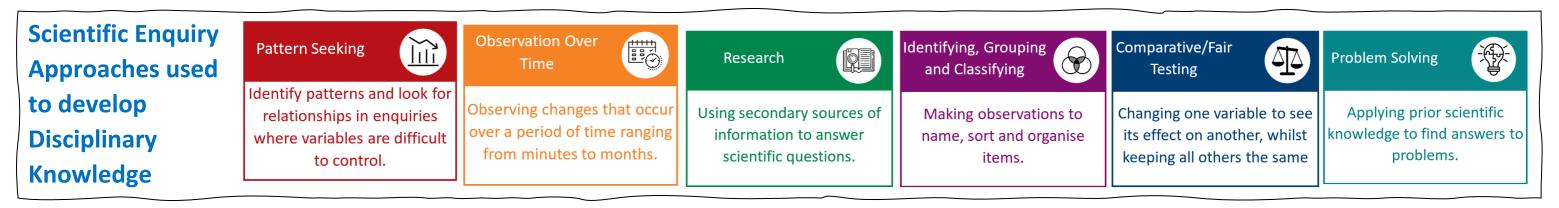
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Each unit focuses on one or two of these big ideas. Knowledge relating to each of the big ideas is mapped progressively so that connections can be made to previous learning.

Reception	Year 1	
Explore the natural world, making observations and drawing pictures of animals and plants. Know some	Identify and name a variety of plants and explore their bas structure	
	Identify, <u>name</u> and explore the growth and care of animals.	
	Explore the natural world, making observations and drawing pictures of	

Assessment

Pupils' learning of the curriculum is assessed on an ongoing basis to monitor progress and identify the next steps in learning. In lessons, teachers check pupils can understand and remember the key knowledge and working scientifically skills built into the curriculum. Multiple choice guizzes are built into each unit to assess recall and understanding, these act as a diagnostic tool to inform teaching and provide pupils with feedback on their learning.









Substantive Curriculum Content Overview

	Forces Electricit	t <mark>y and Magnets</mark> Wa	ves Earth	Matter	Organisms Ecosyst	ems Genes			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6			
Autumn 1	Animals, Including Humans (About Me)	Habitats	Rocks	States of Matter	Properties of Materials	Light			
	Organisms	Organisms Ecosystems	Earth	Matter	Matter	Waves			
Autumn 2	Exploring Everyday Materials 1	Animals, Including Humans 1 (Growth)	Animals, Including Humans	Animals, Including Humans	Changes of Materials	Looking after the Environment			
	Matter	Genes	Organisms	Organisms Ecosystems	Matter	Ecosystems			
Spring 1	Exploring Everyday Materials 2	Plants	Forces and Magnets	Living Things and Their Habitats (Conservation)	Animals, Including Humans	Electricity			
	Matter	Ecosystems	Electricity and Magnets Forces	Ecosystems	Genes Organisms	Electricity and Magnets			
Spring 2	Plants	Uses of Everyday Materials	Plants	Living Things and Their Habitats	Living Things and their habitats	Animals, Including Humans			
	Ecosystems	Matter	Ecosystems	Genes	Ecosystems	Organisms			
Summer 1	Animals, Including Humans (All About Animals)	Animals, Including Humans 2 (Life Cycles)	Light	Sound	Earth and Space	Evolution and Inheritance			
	Organisms Ecosystems	Organisms	Waves	Waves	Earth	Genes			
Summer 2	Seasonal Changes	Living Things and Their Habitats (Habitats around the World)	Scientific Enquiry	Electricity	Forces	Living Things and Their habitats			
	Earth	Ecosystems	Waves Matter	Electricity and Magnets	Forces	Genes			