



Science Curriculum Plan Overview



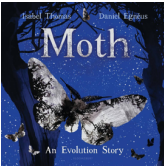
Year 7B

Term	Topic	Key Words	Learning	How can parents' best support
Autumn 1 Topic: Local Community	Baseline Assessments and lab safety	safety lab rules regulations bunsen burner test tube	<ul style="list-style-type: none">Students will talk about the experiences of Primary Science, the topics they have covered and complete some basic assessments of their knowledge, skills and understandingStudents will visit the science lab in school and talk about the rules and regulations in the lab	Complete a Safety Rules in the Lab Poster and share with school Discuss their Primary Science experiences and share books and learning Visit Primary Science Teaching Trust - PSTT for fantastic resources and ideas to support the curriculum
Assessment:	Life Processes and My Amazing Body	Movement Respiration Sensitivity Growth Reproduction Expiration Nutrition Life processing living non-living	<ul style="list-style-type: none">Students will learn about the processes of all living thingsStudents will classify things that are living and non living and use MRSGREN to explain their reasoningStudents will learn about their skeleton and its functionsStudents will learn about the main organs	Use some of the MRSGREN terminology in everyday settings

		muscles joints organs cells nucleus mitochondria cytoplasm roles	<ul style="list-style-type: none"> • Students will learn about muscles and joints and how they are fit for purpose • Students will have the opportunity to take part in a practical experiment to observe the muscles and joints in a chicken wing. 	
Autumn 2 Topic: Changes and Transformations				
Assessment:	Changes of State - the particle model	solid liquid gas state changes cycle energy particles reversible irreversible	<p>Students will learn that compare and group materials together, according to whether they are solids, liquids or gases</p> <p>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)</p> <p>identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature</p>	<p>When cooking at home talk about reversible and irreversible changes to materials e.g. water - steam - ice is reversible. However, egg - scrambled egg is irreversible.</p> <p>Classify items around the home in terms of solid, liquid and gas - have conversations about trickier materials to classify like jelly, gloop and playdoh!</p>

			<p>Students will learn that all things are made up of atoms</p> <p>Students will have the opportunity to apply their knowledge across the curriculum e.g. freezing and melting and irreversible and reversible changes in cookery.</p>	
<p>Spring 1</p> <p>Topic: Charity</p>				
<p>Assessment:</p>	<p>Forces and Gravity</p>	<p>balanced unbalanced forces gravity</p>	<p>Students will learn about the difference types of forces and take part in a variety of practical activities delivered through Attention Autism</p> <p>Students will have the opportunity to explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object</p>	<p>Talk about different forces in everyday life - can you identify forces used when watching or playing different sport activities?</p>

			<p>Students will identify the effects of air resistance, water resistance and friction, that act between moving surfaces</p> <p>Students will recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect</p>	
<p>Spring 2</p> <p>Topic: Significant people and events in history</p>				
<p>Assessment:</p>	<p>Electricity</p>	<p>circuit battery cell switch complete parallel series watt</p>	<ul style="list-style-type: none"> • Students will learn what appliances use electricity and which do not in their everyday life • Students will learn about electrical safety in everyday life and create a poster • Students will learn about the significance of electricity in their everyday life and also its history. • Through an Attention Autism approach, students will learn about the components of a circuit • Students will learn how to construct a simple circuit, parallel 	<p>Talk about the appliances which use electricity at home</p> <p>Talk about electrical safety in the home based on what they have learnt in school</p>

			<p>circuit and series circuit and use their knowledge and understanding to explain why a circuit does or does not work and make simple predictions</p> <ul style="list-style-type: none"> • Students will learn how to use symbol representations to record and plan a circuit on paper 	
Summer 1				
Topic: My World				
Assessment:	<p>Life Cycle of a plant, pollination</p> <p>Natural selection, adaptation interdependence and eco systems</p>	<p>Pollination seed dispersal cross pollination stamen roots Darwin hereditary features adaptation interdependence reliance eco system habitat</p>	<ul style="list-style-type: none"> • Students will learn about the main parts of a plant and dissect a plant in the lab to identify them • Students will learn about the life cycle of a plant and about the process of pollination • Students will learn about the role of bees in pollination and take part in a variety of hands-on, fun and practical experiments! • students will learn about how plants and animals have adapted over time and read the book <i>Moth: An Evolution Story</i>:  <ul style="list-style-type: none"> • • 	<p>Grow plants at home and talk about the parts of a plant</p> <p>look back at photos of the family and discuss inherited and non inherited features!</p> <p>Why not borrow a copy of <i>Moth</i> to share at home?</p>

			<ul style="list-style-type: none"> • We will take part in lots of exciting, hands on scientific enquiry based activities about the adaptation of bird's beaks over time • • Students will learn about inherited and inherited features and the theory of Evolutions 	
Summer 2				
Topic: sustainability				
Autumn 1	metals, non metals, rocks and earth structure	metal non metal property outer core inner core crust mantle metamorphic igneus sedimentary	<p>Through an Attention Autism lesson students will classify objects as metals and non metals and talk about the properties of metals</p> <p>Through visuals and songs students will learn about the structure of the earth and what each layer is made from</p> <p>Through Attention Autism and practical modelling students will learn about the rock cycle - even taking part in hands-on visual exploration! Students will have the opportunity to classify real rocks into metamorphic, sedimentary and igneous based on their properties and appearance.</p>	<p>Visit the Museum of Liverpool to consolidate our learning this year - it is completely free!</p> <p>Look out for rocks when you are out and about - can you identify what type of rock they are? How do you know? Bring it into school and tell us!</p>