

Theme Overview

Year	6	Term	Spring 1
Theme	Rainforest	Big Question	Can you grow Bananas in Derby?
<p>Focus of unit and scope of unit: This unit looks at the importance of protecting the rainforest. The children learn about the impact humans have on environments and learn how weather and climate affects human activity and food production across the globe. The unit looks at the importance of sustainability and how humans can develop it.</p> <p>This unit looks at the life cycles and reproduction of plants and animals and links this to food production.</p> <p>The art aspect looks at the natural form of plants and how this can be represented using sculpture.</p>			
Caring	Creative	Critical	SMSC/Equalities/British Values
The units gets children to reflect on human action on the environment and how food can be grown sustainably. It looks at the importance of looking after our environment.	The unit gives the children a chance to present their learning creatively in a leaflet and come up with creative solutions to promote sustainability. The sculpture aspect allows the children to represent natural forms of plants in creative ways.	The children get a chance to think critically about sustainability, they compare the climate of Derby and the rainforest and use maps, graphs and other information to draw conclusions.	The units helps children to appreciate and understand a complex word. It promoted a cultural understand of different places around the world and the impact our choices have on those.
Big Start	Big Finish		Experience
<p>Take the children to the park – ask them to take photographs of 6 different plants and trees- including the details such as leaves etc...</p> <p>When get back to school - ask the children what these plants are – how can we find out – explain about Linneaus and classification (recap on keys from previous learning) . Children create their own classification system for their chosen plants. – To be done in groups.</p> <p>Or: purchase butterfly hatching set and use with class</p>	<p>Fair Trade Banana Split Game</p> <p>Sharing of leaflets in supporting deforestation</p>		CAD

Science

Year 5	Term			
Sequence of Learning	Previous Learning		Next Steps in Learning	
	<p>In Year 4 children have studied living things and habitats and looked at food chains. They have begun to make careful observations to influence their thinking and know what things a plant needs to ensure it grows healthily.</p>		<p>The children will go onto to learn in more detail about the classification system and how plants and animals have adapted to their environment - including looking at the works of Darwin. The children will continue to ask scientific questions and use different ways of finding out the answers and drawing their own conclusions.</p>	
Knowledge and Skills	Planning an Investigation	Carrying Out an Investigation		Presenting Evidence and Drawing Conclusions
	<p><i>I ask relevant questions (containing scientific knowledge and understanding) and with help I recognise which type of enquiry is best to answer a question.</i></p> <p><i>I decide what observations and measurements to make (controlling variables with help where necessary) and what equipment to use to make my measurements and observations.</i></p>	<p><i>I use a range of equipment independently to make a series of observations and measurements I take are adequate for the task.</i></p> <p><i>I use information sources provided to find things out.</i></p> <p><i>I identify possible risks to myself and others with support.</i></p> <p><i>I gather and record non-complex results (data and observations) using e.g. tables and scientific diagrams that I can independently construct.</i></p>	<p><i>I present the results (data and observations) in a range of formats e.g. bar and line graphs, simple scatter graphs, keys and frequency charts.</i></p> <p><i>I draw conclusions from my data and observations.</i></p> <p><i>I begin to use basic scientific evidence to support or refute the ideas or arguments for my conclusion.</i></p> <p><i>I can use simple scientific models to present my thinking.</i></p>	
	Substantive Knowledge		Famous Scientists	
	<p>Living things and their habitats <i>Know the life cycle of different living things, e.g. mammal, amphibian, insect bird.</i> <i>Know the differences between different life cycles.</i> <i>Know the process of reproduction in plants.</i> <i>Know the process of reproduction in animals.</i></p> <p>Animals, including humans 1. <i>Create a timeline to indicate stages of growth in humans.</i></p>		<p>Carl Linneaus - created system for classifying plants and animals</p>	
Vocabulary	<p>Pollination: when pollen from one plant is transferred to the ovary of another. Fertilisation: when an egg and pollen (or sperm) join together.</p> <p>Carpel: female part of the flower – made of stigma, style and ovary.</p> <p>Stigma: part of the carpel that pollen grains attach to during pollination.</p> <p>Style: the middle part of the carpel, connecting the ovary to the stigma.</p>	<p>Larva: the young form of some animals, which looks very different from its parents. It undergoes a dramatic change to become an adult, and loses its young features or gains new ones.</p> <p>Metamorphosis: a dramatic change in the life cycle of an animal in which it ends up looking totally different.</p>	<p>Pregnant: the condition of a female animal when there is a baby growing inside her womb. Gestation period: the amount of time that a baby spends inside its mother's womb before it is born.</p> <p>Ovary: the part of the flower that contains the ovules.</p> <p>Sepals: protect the rest of the flower as it grows.</p> <p>Stamen: the male part of the flower produces pollen</p>	

Geography

Year 5	Term: Bananas		
Sequence of Learning	Previous Learning		Next Steps in Learning
	<p>The children have previously looked at comparing a tourist destination in Europe and England and looked at land use.</p> <p>They have mapped a simple route and expanded their knowledge of map symbols.</p>		<p>Children move onto looking at where our food comes from and expand their knowledge of how land is used across the world including comparing South American rainforest and England. They will learn about the sustainability of the our choices around food and the impact this has on the environment.</p> <p>They will be encouraged to think about sustainable choices.</p>
Knowledge and Skills	Locational Knowledge	Place Knowledge	
	<ul style="list-style-type: none"> • Know, name and locate the main regions and key land use patterns in the UK. Use all 12 regions: <i>Land use patterns include:</i> residential, commercial, industrial, agricultural, and natural • Locate the Equator, Tropic of Cancer and the Tropic of Capricorn on a map. • Know whether a country is located in the Southern or Northern hemisphere. • Know the name of a number of countries and capital cities in the world. <i>Egypt/Cairo, India/ New Delhi, China/Beijing, USA/ Washington, Australia/Canberra, Canada/Ottawa, South Africa, Cape Town</i> • Know and label the Amazon Rainforest 	<ul style="list-style-type: none"> • Know the geographical similarities and differences of two contrasting agricultural regions Amazon/England 	
	Mapwork		Fieldwork
<ul style="list-style-type: none"> • Know how to use detailed sketch maps and symbols for a key to record geographical features and places. • Know how to use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied • 		<p>Analyse data presented in a variety of ways and use to compare, contrast and make connections between places.</p> <ul style="list-style-type: none"> • use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies. • Construct bar graphs to compare present data 	
Vocabulary	Rainforest Sustainability Southern and northern hemisphere climate	Natural resources Economic activity Equator Tropic of Cancer Tropic of Capricorn	

Design Technology

Year 5	Summer Term 1: CAD 1		
Sequence of Learning	Previous Learning		Next Steps in Learning
	<p>The children have previously studied levers. They have used their knowledge of joining techniques and axels to create a moon buggy. They have started producing more detailed plans with diagrams and evaluating their final design against given criteria.</p>		<p>The children will further develop their CAD knowledge in a more complex project in Year 6, using more detailed mechanisms and more independently construct a programmable moving model.</p>
Knowledge and Skills	Design	Make	Evaluate
	<ul style="list-style-type: none"> <i>Come up with a range of ideas after collecting information from different sources.</i> <i>Produce a detailed, step-by-step plan which could include step by step instructions, cross sectional diagram, prototypes.</i> <i>Suggest alternative plans; outlining the positive features and draw backs.</i> <i>Explain how a product will appeal to a specific audience and criteria.</i> 	<ul style="list-style-type: none"> <i>Use a range of tools and equipment competently.</i> 	<ul style="list-style-type: none"> <i>Evaluate appearance and function against original criteria.</i> <i>Suggest improvements that could be made, considering material and methods.</i>
	Cooking & Nutrition / Construction & Structures / Textiles / Mechanisms		Famous Designers
<ul style="list-style-type: none"> <i>With support make a product using computer programming, monitoring and control to create movement.</i> Understand and use mechanical systems in their products (gears) <p>Science Objective Explain how levers, pulleys and gears allow a smaller force to have a greater effect. (science objective to be covered in DT unit)</p>			
Vocabulary	<p style="text-align: center;">Computer aided design</p> <p>construct, deconstruct, rotation, motor, mechanism, gear</p>		

Art and Design

Year 5	Term			
Sequence of Learning	Previous Learning		Next Steps in Learning	
	<p>Children have previously used dough and clay to sculpt using historical sculptures as an influence. They will extend their knowledge in this unit using wire sculpture and using nature as an influence.</p>		<p>The children will move into to using Modroc to create a sculpture with facial features using tools and fingers to sculpt features. They will use current cultural designs to influence their learning and study how the use of colour can impact on mood.</p>	
Knowledge and Skills	Being an Artist	Drawing / Painting / Sculpture		Elements of Art
	<p>Understanding different techniques Developing and evaluating techniques</p> <ul style="list-style-type: none"> • <i>Being to independently adapt and alter my ideas to create a finished piece of art.</i> 	<p>Knowing and applying techniques</p> <ul style="list-style-type: none"> • <i>Know how to use fabric and paper to create a sculpture.</i> • <i>To shape, form, model and construct from observation or imagination.</i> 		<p>Knowing and applying elements e.g. colour, form, line, pattern</p> <ul style="list-style-type: none"> • Form - <i>Further extend their ability to describe and model form in 3D using a range of materials.</i> <p>Colour - <i>apply colours to represent mood from observation</i></p>
	Work of Artists - Appreciation		Work of Artists - Art History	
	<p><i>Reflect upon the artists' work ad their own art work, and share your response verbally ("I liked... I didn't understand... it reminded me of... It links to... It is similar to.... The artists... and... are similar because...</i></p> <ul style="list-style-type: none"> • <i>Research the work of an artist and use their work to replicate a style.</i> 		<ul style="list-style-type: none"> • Wire Plant Sculpture – Alexander Calder 	
Vocabulary	Bend Shape twist	Braid Loop join		

