

## DESIGN & TECHNOLOGY

	<b>AUTUMN FOCUS</b>	<b>SPRING FOCUS</b>	<b>SUMMER FOCUS</b>
<b>YEAR 4</b>	<p>Cooking &amp; Nutrition (soups &amp; stews) Use pulses/beans from Egypt. Have we always been what we eat?</p> <p style="text-align: center;"><b>VISIT/TRIP:</b> <b>Ashmolean Museum, Oxford</b></p> <p style="text-align: center;"><b>DISPLAY:</b> <b>Art focus – hieroglyphics</b></p> <p style="text-align: center;"><b>FINAL PRODUCT:</b> <b>Soup</b></p> <p style="text-align: center;"><b>Opportunities for Exploring Diversity:</b> Enslavement within the Egyptian times – linked to labour, hierarchy and lifestyle in comparison to Pharaohs.</p>	<p style="text-align: center;">Roman Buildings (Construction and Architecture)</p> <p style="text-align: center;"><b>VISIT/TRIP:</b> <b>Verulamium Museum, St Albans</b></p> <p style="text-align: center;"><b>DISPLAY:</b> <b>Range of Roman villas</b></p> <p style="text-align: center;"><b>FINAL PRODUCT:</b> <b>Roman Villa model</b></p> <p style="text-align: center;"><b>Opportunities for Exploring Diversity:</b> Roman temples (sacellum)</p>	<p>Robotics: Circuits, switches and torches.</p> <p style="text-align: center;"><b>VISIT/TRIP:</b> <b>STEM ambassador visit: LEGO Robotics</b></p> <p style="text-align: center;"><b>DISPLAY: Circuits</b></p> <p style="text-align: center;"><b>FINAL PRODUCT: An electrical alarmed box</b></p> <p style="text-align: center;"><b>Opportunities for Exploring Diversity:</b> Lewis Howard Latimer inventor best known for patenting carbon filaments for the light bulb and the telephone.</p>
	<p>Mahmoud Mukhtar (Egyptian sculptor)</p> <p>The Story of Tutankhamun – Patricia Cleveland-Peck</p> <p>Horrible Histories – Awesome Egyptians</p> <p>Horrible Histories – Fabulous Pharaohs</p> <p><a href="http://www.eatingwell.com/recipe/278578/egyptian-lentil-soup/">www.eatingwell.com/recipe/278578/egyptian-lentil-soup/</a></p> <p><a href="http://www.nhs.uk/live-well/eat-well/">www.nhs.uk/live-well/eat-well/</a></p>	<p>Marcus Vitruvius Pollio – Roman architect</p> <p><a href="http://www.stem.org.uk/resources/community/collection/285271/structures">www.stem.org.uk/resources/community/collection/285271/structures</a></p>	<p>All About Robot: A Kids Picture Book about Robots – Emma Jacobs</p> <p>National Geographic Kids – Robots</p> <p><a href="http://www.juniorstem.co.uk/">www.juniorstem.co.uk/</a></p> <p><a href="http://www.dkfindout.com/uk/science/electricity/circuits/">www.dkfindout.com/uk/science/electricity/circuits/</a></p>
<b>Skills</b>	<p><b>Cooking</b></p> <ul style="list-style-type: none"> <li>Understand and apply the principles of a healthy and varied diet.</li> <li>Prepare and cook a variety of predominately savoury dishes using a range of cooking techniques.</li> <li>Understand seasonality, and where and how a variety of ingredients are grown, reared, caught and processed.</li> </ul>	<p><b>Sculpture</b></p> <ul style="list-style-type: none"> <li>Generate, develop, model and communicate their ideas through discussions, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.</li> <li>Select from and use a wider range of tools and equipment to perform practical tasks accurately.</li> <li>Select from and use a wider range of materials and components, including construction materials and textiles according to their functional properties and aesthetic qualities.</li> <li>Investigate and analyse a range of existing products.</li> <li>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</li> </ul>	<p><b>Mechanical Engineering</b></p> <ul style="list-style-type: none"> <li>Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.</li> <li>Select from and use a wider range of tools and equipment to perform practical tasks accurately.</li> <li>Select from and use a wider range of materials and components, including construction materials and textiles according to their functional properties and aesthetic qualities.</li> <li>Investigate and analyse a range of existing products.</li> <li>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</li> </ul>

		<ul style="list-style-type: none"> <li>Understand how key events and individuals in design and technology have helped to shape the world.</li> </ul>	<ul style="list-style-type: none"> <li>Understand and use electrical systems in their products (for example, series circuits, switches, bulbs, buzzers and motors).</li> <li>They apply their understanding of computing to program, monitor and control their products.</li> </ul>
<b>Key Vocabulary</b>	Balanced diet, healthy eating, mix, cut, slice, seasons, food groups ( <b>diary, protein, carbohydrates, fats, fruit and vegetables</b> ), <b>seasonal, savoury, simmer</b> , steam, <b>knead, season, rise</b> , menu, <b>palate, stew</b> ,	<b>Architecture</b> , drawing, painting, sculpture, colour, pattern, line, texture, shade, tone, line, shape, form, space, difference, similarities, <b>Basilica, architrave, villa, amphitheatre, Pantheon, dentils, plinth, portico, reveal, stylobate, velatium, exedra, caementa</b>	Electricity, system, robot, <b>circuit</b> , battery, <b>appliances, cell</b> , wire, construction, bulb, buzzer, switch, safety, <b>sign, insulator, conductor</b> , wood, rubber, plastic, cardboard, metal, glass, water, <b>open circuit, closed circuit</b> , power, <b>source</b> , lamp, build, design, <b>tower, stack</b> , attach, connect, <b>fuse</b>
<b>Opportunities for Learning / Cross Curricular</b>	<p>History – Ancient Egypt</p> <p>Geography – Locating Egypt on a map</p> <p>PSHE – enslavement</p> <p>Science – Healthy Eating and Balanced Diets</p>	<p>History – Romans</p> <p>RE – Roman temples</p> <p>Science –STEM learning: Structures</p>	<p>History – Lewis Howard Latimer</p> <p>Science – Electricity</p>
<b>Learning Overview / WALTs</b>	<p><b>Week 1</b> WALA: healthy eating food groups</p> <p><b>Week 2</b> WALA: Ancient Egyptian Food <i>What did the different classes eat?</i></p> <p><b>Week 3</b> WALT: write a healthy eating recipe inspired by the Ancient Egyptians.</p> <p><b>Week 4</b> WALT: make a basic dough and cook flatbreads.</p> <p><b>Week 5</b> KQ: where in the world do vegetables come from?</p> <p><b>Week 6</b> WALT: use knives to cut vegetables for a stew</p> <p><b>Week 7:</b> WALT: evaluate our own work</p>	<p><b>Week 1</b> WALT: Use tone, texture, shade and pattern.</p> <p><b>Week 2</b> WALT: Research the different features of Roman architecture. KQ: What were the strengths of Roman architecture? <i>What is special about the architecture of Roman Temples?</i></p> <p><b>Week 3</b> WALT: Investigate materials.</p> <p><b>Week 4 and 5</b> WALT: Make a model of a Roman villa.</p> <p><b>Week 6</b> WALT: Evaluate our Roman villas.</p>	<p><b>Week 1</b> WALH: An electrical circuit works and its component. <i>How did Lewis Howard Latimer influence science?</i></p> <p><b>Week 2</b> WALT: Design an electrical object.</p> <p><b>Week 3</b> WALT: Create our own electrical circuit.</p> <p><b>Week 4</b> WALT: Make a variety of switches.</p> <p><b>Week 5</b> WALT: Make an electrical object (alarmed box).</p> <p><b>Week 6</b> WALT: Evaluate our electrical object.</p>