

# Lancasterian Primary School

A safe and welcoming learning community where:

- we all aim high;
- everyone is included;
- creativity is valued.



## KS1/2 Curriculum Map DESIGN & TECHNOLOGY

	Y1	Y2	Y3	Y4	Y5	Y6
<b>Technical Vocabulary</b>	Design, plan, assemble, joint, slider, lever	Peel, cut, slice, healthy, import, export	Net, vertex, edge, face, prototype, functional	Bench hook, coping saw, Tenon saw, mark out, set square, tension	Cam, rotational movement, pivot point, Linear movement, follower,	Tasting, texture, proving, knocking back, carbohydrate, method
Wk1	<p>➤ <b>Levers and sliders- Mechanism</b></p> <ul style="list-style-type: none"> <li>➤ Design a purposeful and functional moving picture using a moving mechanism.</li> <li>➤ Make a moving picture using a moving mechanism.</li> <li>➤ Reflect and evaluate your product against the design criteria.</li> </ul> <p>Trip suggestion: Young V &amp; A- Design</p> <p><u>Suggested Extended Abstract/Greater Depth Task:</u> Justify design choices made.</p>	<p>➤ <b>Cooking and nutrition- Healthy and varied diet</b></p> <ul style="list-style-type: none"> <li>➤ Use the basic principles of a healthy and varied diet to prepare a dish which is visually appealing: A healthy salad, researching where the vegetables come from</li> <li>➤ Cut, peel and grate safely and hygienically.</li> <li>➤ Understand where common ingredients used in the UK come from</li> <li>➤ <u>Suggested chefs, Asma Khan, Erchen Chang, Gennaro Contaldo, Jamie Oliver</u></li> </ul> <p><u>Suggested Extended Abstract/Greater Depth Task:</u> Debate the pros and cons of using locally sourced ingredients.</p>	<p>➤ <b>Shell Structures – Construction, materials and templates</b></p> <ul style="list-style-type: none"> <li>➤ Investigate, analyse, and evaluate a range of existing products which have been made to fulfil a purpose of the pupil's choice (different type of packaging)</li> <li>➤ Explore how graphics can be used on those products.</li> <li>➤ Design and make a functional packaging box for a particular purpose.</li> <li>➤ Reflect and evaluate the product against the design criteria.</li> </ul> <p><u>Award winning packaging Artists</u></p> <p>Trip suggestion: The Design Museum</p>	<p>➤ <b>Frame Structures- Constructions</b></p> <p><u>Planning - Planning</u></p> <ul style="list-style-type: none"> <li>➤ Explore examples of houses during the Bronze Age. Explore the tools and techniques that were used to make such structures.</li> <li>➤ Make an annotated plan for your Roundhouse, listing materials and tools needed. Reflect and evaluate your final plan. Consider the views of others to improve your plan.</li> <li>➤ Design and make a strong and stable Anglo-Saxon Roundhouse using a range of tools and equipment. Explore how the structure</li> </ul>	<p>➤ <b>Mechanisms- Cams</b></p> <ul style="list-style-type: none"> <li>➤ Investigate toys with moving cam mechanisms.</li> <li>➤ Investigate different types of cam mechanisms and ways of strengthening structures for a moving toy.</li> <li>➤ Design and make a moving toy with a cam mechanism. Reflect and evaluate your product against the design criteria.</li> </ul> <p><u>Planning</u></p> <p><u>Suggested Extended Abstract/Greater Depth Task:</u> Predict what a product does by examining its mechanical components.</p>	<p>➤ <b>Cooking and nutrition- Celebrating cultures.</b></p> <ul style="list-style-type: none"> <li>➤ Understand and apply the principles of a healthy and varied diet. Learn how bread products are an important part of a balanced diet.</li> <li>➤ Design, make and bake a bread product using bread shaping techniques and following a recipe. Reflect and evaluate your product against the design criteria.</li> <li>➤ Understand seasonality and know where and how a variety of ingredients are grown, reared, caught, and processed.</li> </ul> <p><u>Suggested Extended Abstract/Greater Depth Task:</u> Explore the use of contrasting flavour</p>

			<p><u>Suggested Extended Abstract/Greater Depth Task:</u> Explore how another user may evaluate a product differently, including peer assessment.</p>	<p>could be made stronger, stiffer, and more stable.</p> <p><b>Link with History:</b> Anglo-Saxon</p> <p><b>Link with Science-Materials</b></p> <p><u>Suggested Extended Abstract/Greater Depth Task:</u> Focus on the materials themselves, explain how their properties (e.g. strength, flexibility, durability, etc.) can enhance the performance of a structure/product</p>		<p>combinations (e.g. sweet and sour)</p>
<b>Technical Vocabulary</b>	Design, purpose, freestanding structure, join, fix, assemble	Sewing, investigating, planning, design, evaluate, template	Balanced diet, hygiene, texture, appealing, macronutrients, food pyramid	Circuit, series circuit, conductor, insulator, output device, input device	Healthy, hygiene, skin, ingredients, environment, waste	Circuit, series circuit, push to make, break switch, output device, input device
Wk2	<p>➤ <b>Construction, materials and templates</b></p> <ul style="list-style-type: none"> <li>➤ Design a functional model of playground equipment/ kite.</li> <li>➤ Make your model selecting from and using a wider range of materials and components, including construction materials and textiles according to their functional properties and aesthetic qualities.</li> <li>➤ Reflect and evaluate your product against the design criteria.</li> </ul> <p><u>Suggested Extended Abstract/Greater Depth Task:</u> Create their own design</p>	<p>➤ <b>Constructions, materials and templates</b></p> <ul style="list-style-type: none"> <li>➤ Design and make a purposeful, functional, appealing product based on design criteria. (soft toy/puppet)</li> <li>➤ Make your model selecting from and using a wider range of materials and components, including construction materials and textiles according to their functional properties and aesthetic qualities.</li> <li>➤ Reflect and evaluate your product against the design criteria. What worked well? / What can I improve?</li> </ul> <p><b>Link with History Toys</b></p>	<p>➤ <b>Cooking and nutrition- Healthy and varied diet</b></p> <ul style="list-style-type: none"> <li>➤ Understand and explain the different groups that food can be divided into</li> <li>➤ Understand and apply the principles of a healthy and varied diet to prepare a healthy Greek meal of dolmades, Greek salad, and tzatziki. Learn about Greek food and why these ingredients are used in Greek cuisine.</li> </ul> <p><b>Link with History Ancient Greece</b></p> <ul style="list-style-type: none"> <li>➤ Follow a recipe and select and safely use. Using skills such as measuring, weighting, mixing, folding, cutting and grating.</li> </ul>	<p>➤ <b>Electrical systems- Simple circuits</b></p> <ul style="list-style-type: none"> <li>➤ Discuss, investigate and, where practical, disassemble different examples of battery-powered products.</li> <li>➤ Research and investigate examples of switches, including those which are commercially available, which work in different ways e.g. push-to-make, push-to-break, toggle switch. Generate, develop, model and communicate ideas</li> </ul>	<p>➤ <b>Cooking and nutrition- Celebrating cultures and seasonality.</b></p> <ul style="list-style-type: none"> <li>➤ Investigate and explore the environmental impacts of different foods, including how they are produced and the most effective ways to store them to prolong shelf-life and reduce waste.</li> <li>➤ Understand and apply the principles of a healthy and varied diet to create a Mexican dish.</li> </ul> <p><b>Linked to History- and Geography- Mexico</b></p> <ul style="list-style-type: none"> <li>➤ Control the temperature of the hob or oven to cook properly and apply knowledge of the correct storage of ingredients to maximise shelf-life of dish.</li> </ul> <p><u>Suggested Chefs (Mexican Chefs)</u></p>	<p>➤ <b>Electrical Systems- switches and circuits</b></p> <ul style="list-style-type: none"> <li>➤ Research, investigate and analyse a range of children’s games.</li> <li>➤ Generate, develop, model, and communicate ideas through exploded diagrams, prototypes, and computer-aided design.</li> <li>➤ Design and make a steady hand game. Construct a stable base. Assemble electronics and complete and electronic game.</li> <li>➤ Suggested designers, bameingames.org</li> </ul>

	<p>criteria against which to evaluate a product.</p>	<p>Trips suggestion: Puppet Theatre Barge or Visit Hamleys toy store Build a bear workshop.</p> <p><u>Suggested Extended Abstract/Greater Depth Task:</u> Use wider knowledge and understanding of existing products to suggest adaptations.</p>	<p>➤ Reflect and evaluate your dish. What worked well/ What needs to be improved. Sensory evaluation. Does it taste good? What textures can you taste?</p> <p>Link with PSHE- Healthy Lifestyle</p> <p><u>Suggested Extended Abstract/Greater Depth Task:</u> Justify utensil choices by explaining how they support the preparation of the dish.</p>	<p>through discussion, annotated sketches and exploded diagrams.</p> <p>➤ Design and make a purposeful, functional product, considering the design brief and purpose. Include an electrical system in products design (for example, series circuits incorporating switches, bulbs, buzzers, and motors)</p> <p>Trip suggestion: The Science Museum- Electricity and circuits. Energy Hall. The Institution of Engineering and Technology (IET) – savoy Place (look for educational workshops)</p> <p><u>Suggested Extended Abstract/Greater Depth Task:</u> Generate more than one circuit and justify most appropriate against design criteria.</p>	<p><u>Suggested Extended Abstract/Greater Depth Task:</u> Use 2 different cooking methods within one dish (e.g. boil and fry or bake and grill)</p>	<p>Trip suggestion: Young V &amp; A- Design</p> <p><u>Suggested Extended Abstract/Greater Depth Task:</u> Model ideas using scaled drawings/diagrams.</p>
<b>Technical Vocabulary</b>	Design, make, evaluate, healthy, import, export	Vehicle, wheels, fixed axel, free axel, chassis	Leever, linkage, input, output, mechanism, pivot	Measure, aesthetics, healthy, safety, import, export	Fabrics, ecofriendly, investigating, purpose, tools, copyright	Framework, porotype, reinforcing, triangulation, hack saw, 3D Design

<p>Wk3</p>	<p>➤ <b>Cooking and nutrition</b></p> <ul style="list-style-type: none"> <li>➤ Use the basic principles of a healthy and varied diet to prepare part of a dish from a culture outside the UK</li> <li>➤ Understand where the ingredients in the dish come from</li> <li>➤ Taste tasting different ingredients and plan a healthy dish.</li> </ul> <p>Suggestions:</p> <ul style="list-style-type: none"> <li>- Create dips from cultures.</li> <li>- Create a smoothie, fruit juice</li> </ul> <p><a href="#">Link with Science: Seasons. Seasonal changes/ Plants</a></p> <p><a href="#">Suggested chef: Yotam Ottolenghi</a></p> <p><a href="#">Suggested Extended Abstract/Greater Depth Task: Evaluate different ingredients according to different characteristics (e.g. taste, texture, appearance)</a></p>	<p>➤ <b>Wheels and Axles- Mechanism</b></p> <ul style="list-style-type: none"> <li>➤ Design and make a purposeful and functional vehicle.</li> <li>➤ Reflect and evaluate your product against the design criteria.</li> <li>➤ Explore and discuss examples of wheels products.</li> <li>➤ Explore different ways of making an object move.</li> <li>➤ Explore how to assemble wheels and axles as either fixed or free axels.</li> <li>➤ Make your model selecting from and using a wider range of materials and components, including construction materials and textiles according to their functional properties and aesthetic qualities.</li> </ul> <p><a href="#">Suggested Extended Abstract/Greater Depth Task: Justify choice of material, components, tools and equipment by explaining their function and characteristics.</a></p>	<p>➤ <b>Mechanism- Levers and linkages</b></p> <ul style="list-style-type: none"> <li>➤ Design and make a purposeful and functional storybook with levers and linkages.</li> <li>➤ Explore and research examples of levers and linkages and how they work.</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>➤ Make an annotated plan for your frame structure.</li> <li>➤ Follow your plan to make your final product. Reflect and evaluate your product against the design criteria.</li> </ul> <p>Trip Suggestion: The Keeping Gallery- <a href="#">illustrator of Highwayman</a></p> <p><a href="#">Suggested Extended Abstract/Greater Depth Task: Challenge yourself to create additional interactive elements for your storybook, such as rotating wheels or sliding panels.</a></p>	<p>➤ <b>Cooking and nutrition- Celebrating cultures.</b></p> <ul style="list-style-type: none"> <li>➤ Understand and apply the principles of a healthy and varied diet to create halal cookies- Chocolaty dates or red lentil soup.</li> </ul> <p><a href="#">Link with History- Islamic Civilisation</a></p> <ul style="list-style-type: none"> <li>➤ Measure ingredients to the nearest gram accurately. Focus is on weighing ingredients.</li> <li>➤ Assemble the final dish considering aesthetics.</li> </ul> <p><a href="#">Link with PSHE- Making Healthy choices.</a></p> <p><a href="#">Suggested Chefs (Arab chefs from the world)</a></p> <p><a href="#">Suggested Extended Abstract/Greater Depth Task: Once food is made, discuss whether alternate ingredients/methods could have been more successful.</a></p>	<p>➤ <b>Textiles- stitching. Joining different fabrics</b></p> <ul style="list-style-type: none"> <li>➤ Design and make an ecofriendly bag. Select from and use a wider range of materials and components, according to their functional properties and aesthetic qualities.</li> <li>➤ Understand how key events and individuals in design and technology have helped shape the world including BAME role models.</li> <li>➤ <a href="#">Suggested designer – Tara Gbolade (sustainable design).</a> Evaluating different shopping bags and their impact on the environment.</li> </ul> <p>Trip suggestion: The Design Museum- workshop on how good design can help us look after our environment.</p> <p><a href="#">Suggested Extended Abstract/Greater Depth Task: Adapt choices of tools and materials during the process in response to unforeseen issues.</a></p>	<p>➤ <b>Frame Structures- Shelter</b></p> <ul style="list-style-type: none"> <li>➤ Explore examples of frame structures (shelter)</li> <li>➤ Design and make your own frame structure that is fit for purpose using a 3D Design computer software. Reflect and evaluate your product. Make an Anderson Shelter</li> </ul> <p><a href="#">Link with History- Protection from German bombs.</a></p> <ul style="list-style-type: none"> <li>➤ Use a wide range of materials and components, including <a href="#">construction materials</a> according to their functional properties and aesthetic qualities. Use a wide range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing) accurately.</li> </ul> <p><a href="#">Suggested Architect: John Anderson</a></p> <p><a href="#">Suggested Extended Abstract/Greater Depth Task: Identify how perceptions of strengths and weaknesses in designs may vary according to who is evaluating the design.</a></p>
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### IT Resources

LGFL – [Busythings](#) – Cooking and Nutrition

LGFL – [Busythings](#) – Design Technology

LGFL - [Cookit](#)

[www.foodafactforlife](http://www.foodafactforlife)

Link with Food Tech: <https://www.foodafactforlife.org.uk/7-11-years/>