

## EUXTON C OF E PRIMARY SCHOOL PROGRESSION MAP – DT

Besides the specific units shown on the map, **Cooking and Nutrition** is also taught weekly in the infants as part of our ‘Wonderful Wednesdays’ programme and is taught in a cross-curricular manner in the juniors to promote a love of cooking and help children to apply the principles of nutrition and healthy eating.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS Expressive arts and design.	Cooking and nutrition. <ul style="list-style-type: none"> <li>• Introduction to healthy foods and what they are.</li> <li>• Looking at what a healthy diet looks like.</li> </ul>	Textiles (sewing) <ul style="list-style-type: none"> <li>• Explore a variety of materials, tools, design, texture, form &amp; functions.</li> <li>• Sewing and arts and crafts.</li> </ul>	Free standing structures. <ul style="list-style-type: none"> <li>• Use different materials to sculpt.</li> <li>• Dragon models.</li> </ul>	Food technology. <ul style="list-style-type: none"> <li>• Exploring different foods.</li> </ul>		Junk modelling. <ul style="list-style-type: none"> <li>• Explore texture through Junk modelling – Three Pigs Houses.</li> </ul>

Year Group	Term and topic	Aspect of DT and unit	Designing	Making	Evaluating	Technical knowledge and understanding
Year 1	Autumn (Respect, Inc. Harvest)	<b>Cooking and Nutrition:</b> Preparing fruits and vegetables	<ul style="list-style-type: none"> <li>• Design based on simple design criteria.</li> <li>• Explore ideas through investigating a variety of fruit and vegetables.</li> <li>• Communicate these ideas through talk and drawings.</li> </ul>	<ul style="list-style-type: none"> <li>• Use simple utensils and equipment to e.g. peel, cut, slice, squeeze, grate and chop safely.</li> <li>• Select from a range of fruit and vegetables according to their characteristics e.g. colour, taste to create a chosen product.</li> </ul>	<ul style="list-style-type: none"> <li>• Taste and discuss a range of fruit and vegetables to identify ease of preparing/taste</li> <li>• Say what they like and do not like about what they have made and attempt to say why.</li> </ul>	<ul style="list-style-type: none"> <li>• Understand where a range of fruit and vegetables come from e.g. farmed or grown at home.</li> <li>• Understand the need for a variety of food in the diet, including how fruit and vegetables are part of <i>The Eatwell Plate</i>.</li> <li>• Know and use technical and sensory vocabulary such as fruit, vegetable, some specific fruit and vegetable names and some names of equipment.</li> </ul>
	Spring 2 (Mad Hatter's Tea Party)	<b>Textiles:</b> Templates and joining techniques	<ul style="list-style-type: none"> <li>• Design based on simple design criteria.</li> <li>• Explore ideas by rearranging materials.</li> <li>• Communicate these ideas through talk and drawings.</li> <li>• Use mock-ups to try out their ideas.</li> </ul>	<ul style="list-style-type: none"> <li>• Select materials from a limited range to carry out practical tasks such as marking out, cutting and joining.</li> <li>• Explain what they are making</li> <li>• Name the tools they use e.g. pins, needles, thread.</li> </ul>	<ul style="list-style-type: none"> <li>• Explore existing textile products relevant to the project and investigate how they have been made.</li> <li>• Say what they like and do not like about the items they have made and attempt to say why.</li> </ul>	<ul style="list-style-type: none"> <li>• Start to use technical vocabulary made by drawing round a template.</li> <li>• Understand how to join fabrics in different ways e.g. running stitch, glue, stapling.</li> <li>• Decorate using different techniques e.g. using painting, fabric crayons, stitching, sequins, buttons and ribbons.</li> </ul>

	Summer 1 (Wheels and axles)	<p><b>Mechanisms:</b> Wheels and Axles</p> <ul style="list-style-type: none"> <li>• Generate initial ideas and simple design criteria through talking and using own experiences.</li> <li>• Develop and communicate ideas through drawings and mock-ups</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Select from and use a range of tools and equipment to perform practical tasks such as cutting and joining to allow movement and finishing.</li> <li>• Select from and use a range of materials and components such as paper, card, plastic and wood according to their characteristics.</li> </ul>	<ul style="list-style-type: none"> <li>• Explore and investigate how a range of products with wheels and axles have been made (including teacher-made examples).</li> <li>• Talk about their ideas as they develop and identify good and bad points</li> <li>• Say what they like and do not like about the items they have made and attempt to say why.</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Explore and use wheels, axles and axle holders.</li> <li>• Know and use technical vocabulary relevant to the project such as vehicle, wheel, axle, axle holder, body, cab, cutting, joining, shaping, finishing, fixed, free, moving, design &amp; make.</li> <li>•</li> </ul>
	Summer 2 (Free Standing Structures)	<p><b>Structures:</b> Free-standing structures.</p> <ul style="list-style-type: none"> <li>• Generate ideas based on simple design criteria and their own experiences, explaining what they could make.</li> <li>• Develop, model and communicate their ideas through talking, mock-ups and drawings</li> </ul>	<ul style="list-style-type: none"> <li>• Generate ideas based on simple design criteria and their own experiences, explaining what they could make.</li> <li>• Develop, model and communicate their ideas through talking, mock-ups and drawings.</li> </ul>	<ul style="list-style-type: none"> <li>• Plan by suggesting what to do next.</li> <li>• Select and use tools, skills and techniques, explaining their choices.</li> <li>• Select new and reclaimed materials and construction kits to build their structures.</li> <li>• Use simple finishing techniques suitable for the structure they are creating</li> </ul>	<ul style="list-style-type: none"> <li>• Know how to make freestanding structures stronger, stiffer and more stable.</li> <li>• Know and use technical vocabulary relevant to the project.</li> </ul>
Year 2	Autumn 1 (I am extraordinary)	<p><b>Cooking and nutrition.</b> (Preparing fruits and vegetables)</p> <ul style="list-style-type: none"> <li>• Design based on simple design criteria.</li> <li>• Explore ideas through investigating a variety of fruit and vegetables.</li> <li>• Communicate these ideas through talk and drawings.</li> <li>• Propose more than 1 idea for product</li> <li>• Add notes to drawings to help explanations.</li> </ul>	<ul style="list-style-type: none"> <li>• Use simple utensils and equipment to e.g. peel, cut, slice, squeeze, grate and chop safely.</li> <li>• Select from a range of fruit and vegetables according to their characteristics e.g. colour, taste and texture to create a chosen product.</li> <li>• Explain which utensils they are using and why.</li> </ul>	<ul style="list-style-type: none"> <li>• Taste and discuss a range of fruit and vegetables to identify ease of preparing/taste</li> <li>• Say what they like and do not like about what they have made and attempt to say why.</li> <li>• Discuss how closely their finished product meets their design criteria</li> <li>• Evaluate whether their finished product matches their purpose.</li> </ul>	<ul style="list-style-type: none"> <li>• Understand where a range of fruit and vegetables come from e.g. farmed or grown at home.</li> <li>• Understand the need for a variety of food in the diet, including how fruit and vegetables are part of The Eatwell Plate.</li> <li>• Know and use technical and sensory vocabulary such as fruit, vegetable, some specific fruit and vegetable names and some names of equipment</li> <li>• Use technical verbs such as peel, cut, slice, squeeze, grate and chop</li> </ul>

Autumn 2 (Zoom to the Moon)	<b>Mechanisms</b>	<ul style="list-style-type: none"> <li>• Generate ideas based on simple design criteria and their own experiences, explaining what they could make.</li> <li>• Develop, model and communicate their ideas through drawings and mock-ups with card and paper.</li> <li>• Children to design a few ideas and discuss which ones might be the most successful and explain why.</li> </ul>	<ul style="list-style-type: none"> <li>• Plan by suggesting what to do next.</li> <li>• Select and use tools, explaining their choices, to cut, shape and join paper and card.</li> <li>• Use simple finishing techniques suitable for the product they are creating.</li> </ul>	<ul style="list-style-type: none"> <li>• Explore a range of existing books and everyday products that use simple sliders and levers.</li> <li>• Evaluate their product by discussing how well it works in relation to the purpose and the user and whether it meets design criteria.</li> <li>• Write an evaluation of their product based on their original design. What would they change for next time?</li> </ul>	<ul style="list-style-type: none"> <li>• Explore and use sliders and levers.</li> <li>• Understand that different mechanisms produce different types of movement.</li> <li>• Know and use technical vocabulary relevant to the project.</li> <li>• children listen and respond appropriately to adults. Ask relevant questions to extend their knowledge and understanding. Build technical and directional vocabulary.</li> </ul>
Summer 1 (There's no place like home)	<b>Textiles.</b> (animal finger puppets)	<ul style="list-style-type: none"> <li>• Design based on simple design criteria.</li> <li>• Explore ideas by rearranging materials.</li> <li>• Communicate these ideas through talk and drawings.</li> <li>• Use mock-ups to try out their ideas.</li> <li>• Propose more than 1 idea for product</li> <li>• Add notes to drawings to help explanations</li> </ul>	<ul style="list-style-type: none"> <li>• Select materials from a limited range to carry out practical tasks such as marking out, cutting and joining.</li> <li>• Explain what they are making</li> <li>• Name the tools they use e.g. pins, needles, thread.</li> <li>• Explain which materials they are using and why</li> <li>• Discuss their work as it progresses</li> </ul>	<ul style="list-style-type: none"> <li>• Explore existing textile products relevant to the project and investigate how they have been made.</li> <li>• Say what they like and do not like about the items they have made and attempt to say why.</li> <li>• Decide how existing products do/do not achieve their purpose</li> <li>• Discuss how closely their finished product meets their design criteria</li> </ul>	<ul style="list-style-type: none"> <li>• Start to use technical vocabulary</li> <li>• Understand how simple 3-D textile products are made, using a template to create two identical shapes.</li> <li>• Cut out shapes which have been made by drawing round a template.</li> <li>• Understand how to join fabrics in different ways e.g. running stitch, glue, stapling.</li> <li>• Decorate using different techniques e.g. using painting, fabric crayons, stitching, sequins, buttons and ribbons.</li> </ul>

Year 3	Autumn (Animal & humans)	<b>Cooking and Nutrition:</b> Healthy and varied diet	<ul style="list-style-type: none"> <li>Develop more than one design/adapt initial design</li> <li>Plan a sequence of actions to make product</li> <li>Think ahead about the order of their work and decide upon equipment and ingredients</li> <li>Clarify ideas through discussion to develop design criteria Inc. appearance, taste, texture and aroma considering a particular user and purpose.</li> </ul>	<ul style="list-style-type: none"> <li>Plan the main stages of a recipe, listing ingredients, utensils and equipment.</li> <li>Select and use appropriate utensils and equipment to prepare and combine ingredients.</li> <li>Select from a range of ingredients to make appropriate food products, thinking about sensory characteristics.</li> </ul>	<ul style="list-style-type: none"> <li>Carry out sensory evaluations of a variety of ingredients and products.</li> <li>Evaluate the ongoing work and the final product with reference to the design criteria and the views of others.</li> <li>Consider and explain how the finished product could be improved.</li> </ul>	<ul style="list-style-type: none"> <li>Know how to use appropriate equipment and utensils to prepare and combine food.</li> <li>Know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught.</li> <li>Know and use relevant technical and sensory vocabulary appropriately.</li> </ul>
	Spring 1 (Solid as a rock)	<b>2D shape to 3D product: Textiles</b>	<ul style="list-style-type: none"> <li>Generate realistic ideas through discussion and design criteria for an appealing, functional product fit for purpose and specific user/s.</li> <li>Produce annotated sketches, prototypes, final product sketches and pattern pieces.</li> <li>Children to create a design brief, supported by the teacher, set within a context which is authentic and meaningful. Discuss the intended user, purpose and appeal of their product. Create a set of design criteria.</li> </ul>	<ul style="list-style-type: none"> <li>Plan the main stages of making.</li> <li>Select and use a range of appropriate tools with some accuracy e.g. cutting, joining and finishing.</li> <li>Select fabrics and fastenings according to their functional characteristics e.g. strength, and aesthetic qualities e.g. pattern.</li> <li>Children to assemble their product using their existing knowledge, skills and understanding from IEAs and FTs. Encourage children to think about the aesthetics and quality finish of their product.</li> </ul>	<ul style="list-style-type: none"> <li>Investigate a range of 3-D textile products relevant to the project.</li> <li>Test their product against the original design criteria and with the intended user.</li> <li>Consider others' views.</li> <li>Understand how a key event/individual has influenced the development of the chosen product.</li> </ul>	<ul style="list-style-type: none"> <li>Know how to strengthen, stiffen and reinforce existing fabrics used.</li> <li>Understand how to securely join two pieces of fabric together.</li> <li>Understand the need for patterns and seam allowances.</li> <li>Know and use technical vocabulary relevant to the project.</li> </ul>
	Summer 1 (Plants)	<b>Shell structures using computer-aided design (CAD)</b>	<ul style="list-style-type: none"> <li>Generate realistic ideas and design criteria collaboratively through discussion and aesthetic purposes of the product.</li> </ul>	<ul style="list-style-type: none"> <li>Plan the order of the main stages of making.</li> <li>Select and use appropriate tools and software.</li> <li>Use computer-generated finishing techniques suitable</li> </ul>	<ul style="list-style-type: none"> <li>Investigate and evaluate a range of shell structures including the materials, components and techniques that have been used.</li> </ul>	<ul style="list-style-type: none"> <li>Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes.</li> <li>Develop and use knowledge of how to construct strong, stiff shell structures.</li> </ul>

			<ul style="list-style-type: none"> <li>Develop ideas through the analysis of existing shell structures and use computer-aided design to model and communicate ideas.</li> </ul>	for the product they are creating.	<ul style="list-style-type: none"> <li>Test and evaluate their own products against design criteria and the intended user and purpose.</li> </ul>	<ul style="list-style-type: none"> <li>Know and use technical vocabulary relevant to the project.</li> </ul>
Y4	Autumn 2 (Sparky!)	<b>Electrical Circuits</b> Simple Circuits and Switches	<ul style="list-style-type: none"> <li>Gather information about needs and wants, and develop design criteria so products are fit for purpose.</li> <li>Generate, develop, model and communicate realistic ideas through discussion</li> <li>Record ideas using annotated sketches.</li> </ul>	<ul style="list-style-type: none"> <li>Order the main stages of making.</li> <li>Select from and use tools and equipment to cut, shape, join and finish with some accuracy.</li> <li>Select from and use construction materials and electrical components according to their functional properties and aesthetic qualities.</li> </ul>	<ul style="list-style-type: none"> <li>Investigate and analyse a range of existing battery-powered products.</li> <li>Evaluate ideas and products against their own design criteria and identify the strengths and areas for improvement in their work.</li> </ul>	<ul style="list-style-type: none"> <li>Understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs and buzzers.</li> <li>Know and use technical vocabulary relevant to the project such as switch, circuit, bulb, wire strippers, batteries, crocodile clip, connection, insulator, conductor.</li> </ul>
	Spring 2 (Viking stew)	<b>Cooking and nutrition:</b>	<ul style="list-style-type: none"> <li>Generate and clarify ideas through discussion with peers and adults to develop design criteria including appearance, taste, texture and aroma for an appealing product for a particular user and purpose.</li> <li>Use annotated sketches and appropriate information and communication technology, such as web-based recipes, to develop and communicate ideas.</li> </ul>	<ul style="list-style-type: none"> <li>Plan the main stages of a recipe, listing ingredients, utensils and equipment.</li> <li>Select and use appropriate utensils and equipment to prepare and combine ingredients.</li> <li>Select from a range of ingredients to make appropriate food products, thinking about sensory characteristics.</li> </ul>	<ul style="list-style-type: none"> <li>Carry out sensory evaluations of a variety of ingredients and products. Record the evaluations using e.g. tables and simple graphs.</li> <li>Evaluate the ongoing work and the final product with reference to the design criteria and the views of others.</li> </ul>	<ul style="list-style-type: none"> <li>Know how to use appropriate equipment and utensils to prepare and combine food.</li> <li>Know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught.</li> <li>Know and use relevant technical and sensory vocabulary appropriately.</li> </ul>
	Summer 2	<b>Mechanical Systems:</b> Levers and Linkages	<ul style="list-style-type: none"> <li>Generate realistic ideas and their own design criteria through discussion, focusing on the needs of the user.</li> <li>Use annotated sketches and prototypes to develop, model and communicate ideas.</li> </ul>	<ul style="list-style-type: none"> <li>Order the main stages of making.</li> <li>Select from and use appropriate tools with some accuracy to cut, shape and join paper and card.</li> <li>Select from a range of techniques for different parts of the process</li> </ul>	<ul style="list-style-type: none"> <li>Identify the strengths/weaknesses of their design ideas in relation to purpose/user</li> <li>Investigate and analyse books and, where available, other products with lever and linkage mechanisms.</li> <li>Evaluate their own products and ideas against criteria and user needs, as they design and make and identify how it could be improved.</li> </ul>	<ul style="list-style-type: none"> <li>Understand and use lever and linkage mechanisms.</li> <li>Distinguish between fixed and loose pivots.</li> <li>Know and use technical vocabulary relevant to the project. Display as key vocab around the classroom.</li> </ul>

Y5	Autumn 2 (Out of this world)	<b>Textiles: Christmas stockings.</b>	<ul style="list-style-type: none"> <li>• Generate innovative ideas by carrying out research including surveys, interviews and questionnaires.</li> <li>• Develop, model and communicate ideas through talking, drawing, templates, mock-ups and prototypes and, where appropriate, computer-aided design.</li> <li>• Design purposeful, functional, appealing products for the intended user that are fit for purpose based on a simple design specification.</li> </ul>	<ul style="list-style-type: none"> <li>• Produce detailed lists of equipment and fabrics relevant to their tasks.</li> <li>• Formulate step-by-step plans and, if appropriate, allocate tasks within a team.</li> <li>• Select from and use a range of tools and equipment to make products that are accurately assembled and well finished. Work within the constraints of time, resources and cost.</li> </ul>	<ul style="list-style-type: none"> <li>• Investigate and analyse textile products linked to their final product.</li> <li>• Compare the final product to the original design specification.</li> <li>• Test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose.</li> <li>• Consider the views of others to improve their work.</li> </ul>	<ul style="list-style-type: none"> <li>• A 3-D textile product can be made from a combination of accurately made pattern pieces, fabric shapes and different fabrics.</li> <li>• Fabrics can be strengthened, stiffened and reinforced where appropriate.</li> <li>• Know and use technical vocabulary relevant to the project e.g. seam, seam allowance, reinforce, template, fastenings, design criteria, annotate, design decisions, functionality, innovation, authentic, user, purpose, evaluate, mock-up, prototype</li> </ul>
	Spring 1	<b>Cooking and Nutrition</b> Celebrating food from near and far	<ul style="list-style-type: none"> <li>• Generate innovative ideas through research and discussion with peers and adults to develop a design brief and criteria for a design specification.</li> <li>• Explore a range of initial ideas, and make decisions on final design linked to user and purpose.</li> <li>• Use words, annotated sketches and information and communication technology as appropriate to develop and communicate ideas.</li> </ul>	<ul style="list-style-type: none"> <li>• Write a step-by-step recipe, including a list of ingredients, equipment and utensils</li> <li>• Select and use appropriate utensils and equipment accurately to measure and combine appropriate ingredients.</li> <li>• Make, decorate and present the food product appropriately for the intended user and purpose.</li> </ul>	<ul style="list-style-type: none"> <li>• Carry out sensory evaluations of a range of relevant products and ingredients.</li> <li>• Record evaluations using e.g. tables/graphs/charts</li> <li>• Evaluate the final product with reference back to the design brief and design specification, taking into account the views of others when identifying improvements.</li> <li>• Understand how key chefs have influenced eating habits to promote varied and healthy diets.</li> </ul>	<ul style="list-style-type: none"> <li>• Know how to use utensils and equipment including heat sources to prepare and cook food.</li> <li>• Understand about seasonality in relation to food products and the source of different food products.</li> <li>• Know and use relevant technical and sensory vocabulary such as fat, carbohydrate, protein, vitamins, nutrients/nutrition, varied, gluten, dairy, savoury, source, seasonality, utensils, combine, fold, knead, stir, whisk, shape, sprinkle, crumble, research, evaluate, design brief</li> </ul>
	Summer 1	<b>Mechanical Systems</b> Spring Pulleys or gears	<ul style="list-style-type: none"> <li>• Generate ideas by using surveys, questionnaires and web-based resources.</li> <li>• Develop a simple design specification to guide their thinking.</li> <li>• Develop and communicate ideas through discussion, annotated drawings, exploded drawings and drawings from different views.</li> </ul>	<ul style="list-style-type: none"> <li>• Produce detailed lists of tools, equipment and materials. Formulate step-by-step plans and, if appropriate, allocate tasks within a team.</li> <li>• Select from and use a range of tools and equipment to make products that are assembled well. Work within the constraints of time, resources and cost.</li> </ul>	<ul style="list-style-type: none"> <li>• Compare the final product to the original design specification.</li> <li>• Test products and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose.</li> <li>• Consider the views of others to improve their work.</li> <li>• Investigate famous manufacturing and engineering companies relevant to the project.</li> </ul>	<ul style="list-style-type: none"> <li>• Understand that mechanical and electrical systems have an input, process and an output.</li> <li>• Understand how cams, pulleys and gears create movement</li> <li>• Understand how gears and pulleys can be used to speed up, slow down or change the direction of movement.</li> <li>• Know and use technical vocabulary relevant to the project.</li> </ul>

Y6	Autumn (World War II, A Child's War)	Structures Focus: frame structures. Design, make and evaluate model bomb shelters.	<ul style="list-style-type: none"> <li>Carry out research into user needs and existing products, using surveys, interviews, questionnaires and web-based resources.</li> <li>Develop a simple design specification to guide the development of their ideas and products, taking account of constraints including time, resources and cost.</li> </ul> <p>Generate, develop and model innovative ideas, through discussion, prototypes and annotated sketches.</p>	<ul style="list-style-type: none"> <li>Formulate a clear plan, including a step-by-step list of what needs to be done and lists of resources to be used.</li> <li>Competently select from and use appropriate tools to accurately measure, mark out, cut, shape and join construction materials to make frameworks.</li> <li>Use finishing and decorative techniques suitable for the product they are designing and making</li> </ul>	<ul style="list-style-type: none"> <li>Investigate and evaluate a range of existing frame structures.</li> <li>Critically evaluate their products against their design specification, intended user and purpose, identifying strengths and areas for development, and carrying out appropriate tests.</li> <li>Research key events and individuals relevant to frame structures.</li> </ul>	<ul style="list-style-type: none"> <li>Understand how to strengthen, stiffen and reinforce 3-D frameworks.</li> <li>Know and use technical vocabulary relevant to the project.</li> </ul>
	Summer (Moving On)	Electrical Systems and Computer Aided Design (CAD) Design, make and evaluate an electrical board game using computer aided design (CAD)	<ul style="list-style-type: none"> <li>Generate ideas including surveys, interviews and questionnaires.</li> <li>Develop, model and communicate ideas through talking, drawing, templates including using computer-aided design.</li> <li>Design purposeful, functional, appealing products for the intended user that are fit for purpose based on a simple design specification.</li> </ul>	<ul style="list-style-type: none"> <li>Produce detailed lists of equipment and fabrics relevant to their tasks.</li> <li>Formulate step-by-step plans and, if appropriate, allocate tasks within a team.</li> <li>Select from and use a range of tools and equipment, including CAD, to make products that are accurately assembled and well finished. Work within the constraints of time, resources and cost.</li> </ul>	<ul style="list-style-type: none"> <li>Investigate and analyse textile products linked to their final product.</li> <li>Compare the final product to the original design specification.</li> <li>Test products with intended user, where safe and practical, and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose.</li> <li>Consider the views of others to improve their work.</li> </ul>	<ul style="list-style-type: none"> <li>A 3-D textile product can be made from a combination of accurately made pattern pieces, fabric shapes and different fabrics.</li> <li>Fabrics can be strengthened, stiffened and reinforced where appropriate.</li> </ul>