



Peel Hall Primary School

Year 3 D&T

	National Curriculum	Mechanisms and Structures	Textiles	Food and Nutrition
Design	<p>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.</p> <p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.</p>	<ul style="list-style-type: none"> • Generate ideas by drawing upon own experiences (looking at existing products) • Design a product that has a function. • Say who their product is for. • Describe how their product can be used (you can push it along, you can float it in water) • Develop their ideas by talking and drawing • Model ideas by exploring materials. 	<ul style="list-style-type: none"> • Generate ideas by drawing upon own experiences (looking at existing products) and researching on the internet • Design a product that has a function. • Say who their product is for. • Describe how their product can be used (eg you can push it along) • Develop their ideas by talking and drawing • Model ideas by exploring materials. 	<ul style="list-style-type: none"> • Generate ideas by drawing upon own experiences (looking at existing products) • Design a product that has a function. • Say who their product is for. • Develop their ideas by talking and drawing • Model ideas by exploring ingredients • Understand the importance of presentation and service.
Make	<p>Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.</p> <p>Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.</p>	<ul style="list-style-type: none"> • Can use scissors, Sellotape dispensers, staplers and hole punchers with accuracy. • Can use a wider range of construction tools, rulers, saws pliers hammer etc. • Can choose the correct materials needed to construct their project. 	<ul style="list-style-type: none"> • Know that fabric can be joined by using glue or a needle and thread. • Can sew a running stitch and over stitch by hand • Can strengthen by folding and or supporting beams /rods. • Can create round structures using concertina triangles 	<ul style="list-style-type: none"> • Know how to use a knife and chopping board safely. • Know the importance of hand washing and cleanliness of work surfaces. • Understand the different safe methods of using a knife to chop, slice and cut food.
Evaluate	<p>Investigate and analyse a range of existing products</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p> <p>Understand how key events and individuals in design and technology have helped shape the world</p>	<ul style="list-style-type: none"> • Say what an existing product is for and who might use it, or who may have used it. • Can say whether their product is suitable for the purpose in which they intended it to be used. • Can improve the design and final product. 	<ul style="list-style-type: none"> • Say what an existing product is for and who might use it. • Can say whether their product is suitable for the purpose in which they intended it to be used. • Can explain the history behind their product. 	<ul style="list-style-type: none"> • Say what an existing product is for and who might use it. • Can say whether their product is suitable for the purpose in which they intended it to be used. • Can evaluate the final product against the initial goal/idea.



Peel Hall Primary School

Year 3 D&T

Technical Knowledge	<p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p> <p>Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</p> <p>Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]</p> <p>Apply their understanding of computing to program, monitor and control their products.</p>	<ul style="list-style-type: none"> • Can use a simple mechanism such as a lever and slider. • Know that paper/cardboard can be reinforced by adding extra layers of paper/cardboard. • Know that structures need supports for strength and stability. • Can waterproof a design to enable it to float. 	<ul style="list-style-type: none"> • Explore how they can make the joins in fabric stronger. (eg knots in the end- needle and thread vs glue) 	<ul style="list-style-type: none"> • Understand that different foodstuffs require different cooking temperatures and times.
Cooking and Nutrition	<p>Understand and apply the principles of a healthy and varied diet.</p> <p>Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</p> <p>Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p>			<ul style="list-style-type: none"> • Understand that all food comes from plants or animals. • Know that everyone should eat 5 portions of fruit or vegetables every day. • Understand the some foods are associated with certain countries.



Peel Hall Primary School

Year 3 D&T

DESIGN TECHNOLOGY AT A GLANCE

	AUTUMN	SPRING	SUMMER
Year 3	<p>Structures</p> <p><u>Building a scale model floating bronze age coracle.</u> Can you design your own coracle using everyday modern materials? Can you measure and cut your components accurately? Can you waterproof (or use a waterproof skin) to enable your boat to float carrying 2 Lego people? <u>Build a stone stone-age house</u> Design and build a stone age house. Can you measure and cut your components accurately? Can you make a house that stands up alone without human support.</p>	<p>TEXTILES</p> <p><u>Sewing</u> Can you design and create a replica Roman centurion uniform? Helmet Tunic sword shield. Pre-evaluation: What did a Roman soldier wear in battle? What made Roman soldiers so successful in Battle? How did their uniform and weapons help them? Can you research how a roman legion used formations in battle? What materials could be used and then painted to look like roman armour/uniform.</p>	<p>Food & Hygiene</p> <p><u>Food Packaging</u> Can you design an afternoon tea? <u>Food taste</u> What do certain foods taste like? Pre-evaluation: Is afternoon tea traditionally British? Is it eaten in different countries? What is eaten / drank at afternoon tea? Are there sweet and savouries at afternoon tea?</p>
Design & Technology by Term	Structures		
Autumn 1	<ul style="list-style-type: none"> Build a waterproof floating coracle 		
Pre-evaluation	<ul style="list-style-type: none"> https://www.google.com/search?q=how+to+make+a+scale+model+coracle&rlz=1C1GCEV_enGB962GB962&source=lnms&tbn=vid&sa=X&ved=2ahUKEwjBuKPrqP7-AhUknFwKHWPzCZgQ_AUoAXoECAEQAw&biw=1366&bih=568&dpr=1#fpstate=ive&vld=cid:f9076a3d,vid:Z5laxeokwag What is a coracle? When were they used? Are they still used today? What are the disadvantages of a coracle to a modern boat design? What everyday materials could we use to make one? What does waterproofing mean and why is it important for a coracle? 		
Design	<ul style="list-style-type: none"> Draw a design of a simple coracle. Choose what materials you will need. Think about your waterproofing method, skin or coating. 		
Technical Knowledge:	<ul style="list-style-type: none"> Do I know how to use a ruler to measure and mark sizes. What practical skills will I use to build the coracle? What tools will I need to build the coracle? What methods are they available to waterproof the coracle? 		
Make	<ul style="list-style-type: none"> http://www.schoolsprehistory.co.uk/2014/01/19/making-a-replica-scale-model-of-a-skin-coracle/ Collect all the materials for your coracle. 		



	<ul style="list-style-type: none">• Measure mark and cut your materials• Assemble the parts together and build the coracle.• Check your waterproof method for gaps.
Evaluation	<ul style="list-style-type: none">• Is the coracle waterproof?• Does it float?• Is it stable in the water• Can it hold the two Lego men without sinking?• Can the coracle be improved? How?• What went well / what went wrong?



Autumn 2	Make a Stone Age house
Pre-evaluation	<ul style="list-style-type: none"> • What does a Stone Age house look like? • Were all Stone Age houses the same? • What materials did they use to build their houses? • How are their houses different to modern day buildings?
Design	<ul style="list-style-type: none"> • Draw a design of your house. • Add sizes to your design. • List the materials and tools you will need. • Plan the order of things needed to be done.
Technical Knowledge:	<ul style="list-style-type: none"> • What will I need to do to make the stable, (sturdy enough to stand)? • Did a stone-age house have rooms? • How many support rods will be needed to stabilise the house? • Know how to use the tools to measure and cut materials to size. • Know how to use cuts in materials to create folds.
Make	<p>https://www.google.com/search?q=making+a+stone+age+house+model&rlz=1C1GCEV_enGB962GB962&oq=Making+a+stone+age+&aqs=chrome.3.0i512j69i57j0i22i30i5j69i60.18506j1j4&sourceid=chrome&ie=UTF-8#fpstate=ive&vld=cid:29f014c6,vid:z6hz3_dHowr,st:2</p> <ul style="list-style-type: none"> • Collect the materials required to make the house. • Measure and mark out the components? • Lay out and mark the base. • Fix the support rods to the base. • Wrap raffia around the rods to add stability. • Cut out the sides and cut the raffia strips, don't forget. • Attach the raffia strips to the sides. • Tape the sides together. • Fold the sides around the frame.
Evaluation	<ul style="list-style-type: none"> • What did you find easy / hard? • What parts went well what did not? • Did your house stand/ was it sturdy • Could your house be improved • What other type of stone-age house could you have made?



Design & Technology by Term		Spring Textiles
Spring 1 & 2 Roman centurion uniform, shield and sword		
Pre-evaluation	<ul style="list-style-type: none"> • What was a Roman centurion? • How did they dress? • What did their shield look like? • How did it differ from shields of other armies and why? • What did their sword look like? • Why was it designed that way? • How did they use them in battle? • Did they have a cloak / material covering? 	
Design	<p>http://www.primaryhomeworkhelp.co.uk/romans/armour.html#:~:text=A%20legionary%20wore%20a%20linen%20undershirt%20and%20a%20tunic%20made%20of%20wool&text=A%20metal%20helmet%20with%20cheek, helmet%20and%20causing%20head%20injuries.</p> <ul style="list-style-type: none"> • Design the uniform Tunic and breast-plate; make sure your design fits your size. • What material could be used for the helmet, tunic and breast plate? • Design the sword and shield. <i>Templates in the resource folder.</i> • What material could be used for the sword and shield? • Choose your colours, what were the typical colours centurions wore. • Design your emblem for your shield. • Decide whether to include a cloak/material covering in your design. 	
Technical Knowledge:	<ul style="list-style-type: none"> • Know what a Roman centurion wore. • Know how to use a template and cut to size. • Know how to stiffen cardboard so it keeps its shape and does not bend? • Able to use a ruler to measure and mark? • Know which fixing to use for a particular join, glue, staples, tape? 	
Make	<p>https://www.instructables.com/Roman-esque-soldier-uniform---from-cardboard!/ How to Make a Roman Shield Hobbycraft - YouTube</p> <p>https://www.google.com/search?rlz=1C1GCEV_enGB962GB962&hl=en-GB&q=How+to+make+a+roman+soldier+cape+without+sewing&sa=X&ved=2ahUKEwi-mMWekv_-AhWZFcAKHSvAKQQ1QJ6BAhLEAE&biw=1366&bih=568&dpr=1#fpstate=ive&vld=cid:f8a04b21,vid:c3TDlp_E1Us</p> <ul style="list-style-type: none"> • Make a project plan for the order you are going to make the uniform. • Measure mark out and cut your chosen materials for the order which you are going to make your tunic, helmet and breast plate. • Make each item in turn and store safely until all items are made. 	



	<ul style="list-style-type: none">• If making a cloak choose the colour material you want
Evaluation	<ul style="list-style-type: none">• What did you find easy / difficult?• Did your costume fit?• Does the final product look like the design/ a roman centurion's uniform?• Could the design / uniform be improved?



Design & Technology by Term		Summer 1 Food and Hygiene
Summer 1	Afternoon Tea	
Pre-evaluation	<ul style="list-style-type: none"> • What is afternoon tea? • What is the history of afternoon tea? • Who typically chooses to go out to eat afternoon tea? • Which foods are served at afternoon tea? • What is the etiquette (code of behaviour) for afternoon tea? 	
Design	<ul style="list-style-type: none"> • Research afternoon tea sweet and savoury options. • Decide on your sandwich choices. • Are you catering for vegetarians / vegans? • Will there be a choice of bread types? • What savoury foods will be offered? • What sweet foods will be offered? • How will your food be presented? • What drink choice will there be? • Will a teapot coffee pot be an option? 	
Technical Knowledge:	<ul style="list-style-type: none"> • What foods / additives are not suitable for vegetarians/vegans? • Importance of hygiene when preparing food. • Importance of safety when using knives. • What constitutes sweet or savoury. • How to present and serve afternoon tea. • Is it customary to remove the crusts and slice sandwiches into triangles? Why? 	
Make cakes	<ul style="list-style-type: none"> • Ensure that you have all your required ingredients. • Ensure that hands, nails and working surface are thoroughly cleaned • Mix your chosen cake mix. • Bake at the required temperature for the required time. • Leave to rise for the required time. • Bake for the required time at the required temperature. <p> https://groceries.asda.com/product/cupcakes-kids-baking-mixes/asda-vanilla-cupcake-kit/1000265255361?&cmpid=ppc-ghs- -- -google- -- -dskwid- _dc& kwcid=AL1143213!!!!x!!&qad=1&qclid=CjwKCAjwvJyjBhApEiwAWz2nLYOMWmMyRxn1dYpoScwjCKxGpdjCjcKOK5mWNf-0kYYYbKRe1JxGhoCv7sQAvD_BwE&qclsrc=aw.ds </p>	



<p>Make sandwiches</p> <p>Prepare your drinks</p> <p>Present and serve</p>	<p>https://www.tesco.com/groceries/en-GB/products/293103661?sc_cmp=ppc*GHS+--+Grocery+-+New*MPX_PMAX_All_OT_All+Products_Online+Budget_1009392**293103661*&gclid=CjwKCAjwvJyjBhApEiwAWz2nLfcJLKV3aYuc5GTmjHFbD_3CCnETPNazm_fMJHeL16ZUpBcHa7RUhxoCD7AQAvD_BwE&gclidsrc=aw.ds</p> <ul style="list-style-type: none"> • Prepare your ingredients, wash, chop, slice, grate etc, your sandwich fillers. • Add the spread of choice to your bread(s) of choice, not all spreads are suitable for vegetarians/vegans. • Add the filler(s) of choice. • Remove the crusts and slice into triangles. <ul style="list-style-type: none"> • Make the drinks you have chosen, If serving hot drinks tea/coffee be aware of the safety rules when working with boiling water always have an adult supervising /assisting. • Present drinks in suitable containers (teapot/coffee pot) iced pitcher if serving cold drinks. <ul style="list-style-type: none"> • Arrange the presentation of you afternoon tea and serve your guests. <i>(Invite the head and deputy head plus teachers of your choice.)</i>
<p>Evaluation</p>	<ul style="list-style-type: none"> • What did you find easy / difficult? • Did your cakes bake well and taste nice? • Did your sandwiches look and taste nice? • Did you remember to cater for varied diets? • Was your presentation as you expected? • If you repeated the tea could you improve it in any way? How? • Have you completed the self evaluation chart (year 3 D&T folder)