



We all love, learn and grow together.



Design and Technology Curriculum & Progression of Skills Overview

Contexts covered across the school – (2 year cycle: Cycle A /Cycle B)			
EYFS	KS1	LKS2	UKS2
EYFS run on a 2 year cycle	<p>Construction (Houses linked to the Great fire of London)</p> <p>Cooking and nutrition (Pizzas linked to healthy eating topic)</p> <p>Mechanics/electrics (Building Mangonels linked to Castles topic)</p> <p>Textiles (Sock puppets linked to Science topic- animals)</p> <p>Mechanics/electrics (Vehicles/moving parts)</p>	<p>Mechanics/electrics (Linked to Science electricity topic- making a simple game)</p> <p>Textiles (Making a bag using recycled materials)</p> <p>Construction (Designing and building a café linked to geography Snowdonia topic)</p> <p>Mechanics/electrics (Catapults linked to Roman topic)</p> <p>Cooking and nutrition (Making tropical smoothies – linked to Rainforest topic)</p>	<p>Construction (Air Raid Shelters - Linked to the topic: The Effects of the War on Liverpool)</p> <p>Mechanics/electrics (Viking Longships- Linked to History topic)</p> <p>Mechanics/electrics (Linked to Science- Electrics - Making Fans)</p> <p>Textiles (Linked to History- <i>Fashion in 20th Century</i>)</p> <p>Cooking and nutrition (Cooking Greek food- linked to Ancient Greece topic)</p>



We all love, learn and grow together.



Design and Technology Curriculum & Progression of Skills Overview

Skills progression - Design and Technology

Pupils are taught the knowledge, understanding and skills needed to engage in the process of design and making.
Below are the skills and end points for each phase.

EYFS

Children at the expected level of development will:

- Draw and paint using a range of materials, tools and techniques, experimenting with colour, design, texture, form and function;
- Share their creations, explaining the process they have used;
- Make use of props and materials when role playing characters in narratives and stories.

	Year1/2	Year 3/4	Year 5/6
Design	<p>I can think of ideas and with help can put them into practice. I know what a design is. I can use pictures and words to describe what I want to do. <i>I know what a design is and its purpose. I can use pictures and words to describe what I want to do (materials, techniques, features, mechanics and tools).</i> <i>These objectives will be covered in all DT units</i></p>	<p>I can start to research and evaluate existing products I understand that products are designed for a purpose (e.g. a problem, an audience, an event). <i>I can research and evaluate existing products to inform me in my own planning. I understand that products are designed for a purpose (e.g. a problem, an audience, an event).</i> <i>These objectives will be covered in all DT units</i></p>	<p>I can research and evaluate existing products giving reasons for the decisions of the designers (materials, design, tools, techniques). I can use the ideas from current designers to help me with my own. <i>I can adapt the ideas from current designers to help me with my own.</i> <i>These objectives will be covered in all DT units</i></p>
Evaluating products	<p>I know what a product is. I can say what a product is for. I can describe a product (who is it for, what is made from, how is it made, how it works). <i>I know the features of familiar products I can give reasons for some features (colour, choice, material used and joining technique).</i> <i>These objectives will be covered in all DT units</i></p>	<p>I can start to research and evaluate existing products I understand that products are designed for a purpose (e.g. a problem, an audience, an event). <i>I can research and evaluate existing products to inform me in my own planning.</i> <i>These objectives will be covered in all DT units</i></p>	<p>I can research and evaluate existing products giving reasons for the decisions of the designers (materials, design, tools, techniques). I can use the ideas from current designers to help me with my own. <i>These objectives will be covered in all DT units</i></p>
Make			



We all love, learn and grow together.



Design and Technology Curriculum & Progression of Skills Overview

<p>Construction</p>	<p>I know what materials I can use for my structure I know what a join is. I can measure and mark out materials I can cut using scissors. I can follow instructions to make my product. <i>I know what materials and tools I can use for my structure.</i> <i>I know what a join is and can use one.</i> <i>I can measure and mark out materials with care and increasing accuracy.</i> <i>I can cut materials safely (scissors, junior hacksaw).</i> <i>I am careful to make my work look as neat as possible.</i> <i>I have found out how to make materials for my structure stronger (folding, rolling and joining, columns and triangles).</i> Autumn 1 – A</p>	<p>I can select and use appropriate materials. I can use an appropriate join. I measure and mark out materials carefully and accurately (cm). I can use scoring and folding to shape materials accurately. I can make cuts accurately (scissors and saws). I can make holes accurately (drill, punch). I can use art skills to enhance the visual appeal of my product <i>I can select and use appropriate materials, joins, folds and techniques.</i> <i>I can make cuts and holes accurately and precisely.</i> <i>I can join materials to make products using both permanent and temporary fastenings.</i> <i>My methods of working are increasingly precise aiming for a high quality finish.</i> <i>I can use art skills to enhance the visual appeal of my product bearing in mind the purpose and audience</i> Autumn 2 - B</p>	<p>I can select from a variety of materials best suited to my design. I can measure using cm, mm. I can shape products accurately and precisely. I can make cuts accurately and reject pieces that are not accurate. My joins are strong and stable, giving extra strength to my products. Some joins are flexible. My methods of working are precise so that products have a high quality finish. I can test my construction methods (materials, cuts, folds, joins) using a prototype. <i>I can make cuts accurately and reject pieces that are not accurate and improve my technique.</i> <i>My methods of working are precise so that products have a high quality finish.</i> <i>I can use computer programming when creating a product.</i> Autumn 2 - A</p>
<p>Mechanics/Electrics</p>	<p>I have explored how moving objects work. I can explain how wheels, axels, turning mechanisms, hinges and levers work. I can make a product that moves using a turning mechanism (e.g. wheels, winding) or a lever or a hinge (to make a movement). <i>I can explain fully how moving objects work.</i> <i>I can investigate wheels, axels, turning mechanisms, hinges and simple levers.</i> <i>I can explain how the mechanism in my product works</i> Summer 1 – A Spring 2 - B</p>	<p>I can choose and make a mechanism to create movement. I can combine a number of components well in my product. My product has a good finish so that a user will find it both useful and attractive. <i>I can use simple circuits to either illuminate or create motion.</i> <i>I can make a product that uses both electrical and mechanical components.</i> <i>My product has a good finish so that a user will find it both useful and attractive.</i> Spring 2 – A Spring 2 - B</p>	<p>I have chosen components that can be controlled by switches or by ICT equipment. My product is improved after testing. I can use my science skills (resistance, batteries in series or parallel, variable resistance to dim lights or control speed) to alter the way my electrical products behave. I can use precise electrical connections. I can explain mechanical movement using hydraulics and pneumatics. I can use other DT skills to create housings for my mechanical components. My product is well finished in a way that would appeal Spring 2 – A Spring 2 - B</p>
<p>Textiles</p>	<p>I can describe textiles by the way they feel.</p>	<p>I can select the appropriate textile(s) for my product based on the properties of the material.</p>	<p>I can experiment with a range of materials until I find the most appropriate material for the job.</p>



We all love, learn and grow together.



Design and Technology Curriculum & Progression of Skills Overview

	<p>I can make a simple product from textiles. I can cut fabric using a template. I can join fabrics using glue and running stitch. I can make sure my work is neat and tidy. I can weave. <i>I know that textiles have different properties.</i> <i>I can select the appropriate textile so that it does the job I want it to.</i> <i>I can alter a textile to make it stronger.</i> <i>I can measure, mark out and cut fabric.</i> <i>I can join fabrics using running stitch</i> Autumn 2 - B</p>	<p>I can measure, mark out and cut fabric. I can use sharp scissors accurately to cut textiles. I can choose the best methods of joining fabrics in order to create a product which is fit for purpose. <i>I can consider the advantages and disadvantages of material for a product.</i> <i>I can create and use a template or pattern to create an accurate product.</i> <i>I can use stitching to help create a product that is sturdy and fit for purpose.</i> <i>I can combine materials to add strength or visual appeal.</i> Summer 2 - A</p>	<p>I can consider the cost and visual appeal of the material. I can mark out using my own patterns and templates. I can join textiles to make a durable and desirable product. I can combine art skills to add colour and texture to my work. <i>I can experiment with a range of materials until I find the right mix of affordability, appeal and appropriateness for the job.</i> <i>My products have an awareness of commercial appeal.</i> <i>I can mark out using my own patterns and templates adapting them if needed.</i> <i>I can combine art skills to add colour and texture to my work.</i> <i>I can join textiles using art skills to make a desirable product.</i> Autumn 1 - B</p>
<p>Cooking and Nutrition</p>	<p>I can use a knife safely. I can mix and combine ingredients. I am aware of hygiene for cooking. I can explain how some things are dangerous to eat raw. I can explain what a recipe is. I can explain how heat changes food. I can make a simple snack. <i>I can use a variety of utensils safely.</i> <i>I can follow a simple recipe.</i> <i>I can combine ingredients in various ways.</i> <i>I can apply hygiene rules to cooking.</i> <i>I can use explain how some foods are made and some are natural.</i> <i>I can explain what the food groups are.</i> <i>I know where some foods come from.</i> <i>I can describe different cooking methods.</i> <i>I can prepare a healthy snack/breakfast.</i></p>	<p>I can select ingredients based on a recipe. I can work in a safe, hygienic way. I can measure out my ingredients. I understand what is healthy and unhealthy. I can combine two cooking processes to make a product. I know where food comes from. I can prepare a healthy lunch. <i>I can select ingredients for my product with reasons.</i> <i>I can work in a safe, hygienic way.</i> <i>I can use mathematical skills to measure out my ingredients.</i> <i>I can follow steps in a recipe using different methods (combining, melting, boiling and baking).</i> <i>I can explain why we need a healthy diet.</i> <i>I can use my knowledge of the food groups to plan and prepare a healthy lunch.</i> Summer 2 - B</p>	<p>I can explain why I need certain food types and select ingredients based on this. I can work safely and hygienically. I know about local produce and seasonality. I understand food choices (veganism, vegetarianism) and food intolerances. I can follow several processes in a recipe. I can use my knowledge of the food groups to plan and prepare a healthy dinner. <i>I know where different crops can be found around the world.</i> <i>I can understand carbon footprint.</i> <i>I know different cultures have different diets and how these have influenced our diet.</i> <i>I can work safely and hygienically.</i> <i>I can follow several processes in a recipe.</i> <i>I can adapt my recipe based on my audience and taste.</i></p>



We all love, learn and grow together.



Design and Technology Curriculum & Progression of Skills Overview

	Spring 1 - A			<i>I can use my knowledge of the food groups to plan and prepare a balanced dinner.</i> Summer 1 - B		
Evaluating	<p>I can talk about my own work (features, design, opinion) I describe how my product works <i>I talk about my own and others' work (features, design, opinion).</i> <i>I can explain why I chose certain materials, techniques and tools.</i> <i>I describe how my product works</i> <i>These objectives will be covered in all DT units</i></p>		<p>I talk about my own and others' work (features, design, opinion). I can explain why I chose certain materials, techniques and tools. I can say what I would do to improve my product. <i>I can identify what is working well and what can be improved (this is during the make as well as at the end).</i> <i>These objectives will be covered in all DT units</i></p>	<p>I can reflect on my designs and develop them bearing in mind the way they will be used (during the process). <i>I can reflect on my designs and adapt them based on testing and a prototype</i> <i>These objectives will be covered in all DT units</i></p>		
Knowledge of designers	<p>I know what a designer does. I give my opinion on a product. <i>I know the names and the products of some British designers.</i> <i>I can say what I like and dislike about the product and the designer</i> <i>These objectives will be covered in all DT units</i></p>		<p>I know some designers from history. I can talk about some of the tools, techniques used by the designer. <i>I know some international designers.</i> <i>I can explain why a product is appealing</i> <i>These objectives will be covered in all DT units</i></p>	<p>I can compare and contrast the work of different designers. I can give reasons for the decisions made by the designer. <i>I know how key events and individuals have influenced the world (in terms of products).</i> <i>I start to think of new products and innovate my own ideas</i> <i>These objectives will be covered in all DT units</i></p>		
Vocabulary	<p>Cut Design Join Made Make Measure Neat Tidy Tools Work</p>	<p><i>Axel</i> <i>Hinge</i> <i>Joining</i> <i>Lever</i> <i>Rolling</i> <i>Scissors</i> <i>Stitch</i> <i>Strong</i> <i>Turning</i> <i>Wheels</i></p>	<p>Column Designer Evaluate Folding Healthy Mixing Product Purpose Structure Utensil</p>	<p><i>Accuracy</i> <i>Bake</i> <i>Boil</i> <i>Folding</i> <i>Hacksaw</i> <i>Hygienic</i> <i>Measure</i> <i>Mechanics</i> <i>Properties</i> <i>Scoring</i></p>	<p>Components Features Ingredients Plaiting Research Strength Structural Technique Visual Weaving</p>	<p><i>Affordable</i> <i>Appropriate</i> <i>Commercial</i> <i>Connections</i> <i>Desirable</i> <i>Durable</i> <i>Embroidery</i> <i>Experiment</i> <i>Influence</i> <i>Template</i></p>