

Design and Technology

Vision

Our DT curriculum is designed to develop the children's practical, technical and problem solving skills. Children love creating solutions in rich contexts which involve evaluating, identifying the problem, researching, designing and making. Children learn about the impact of technology on daily life in different contexts and how inventors have changed the world. They learn a wide range of making skills including cooking and sewing and enjoy collaborating with their peers to create innovative outcomes.

Skills Progression

Early Years Foundation Stage: The progression in DT skills starts in the EYFS as **Expressive Arts & Design** and **Physical Development** with children exploring and joining materials imaginatively and safely, and making decisions about what to make.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Disassemble	Disassemble familiar products	Disassemble familiar products and make drawing	Disassemble products and explain how they are made	Disassemble products and explain how they are made	Disassemble products and explain how they work	Disassemble products and explain how they work
Evaluate existing products	identify likes and dislikes	Explore how products have been created.	Research familiar products and how they were made	Research familiar products and how they were made	Explore related products, identify key features	Explore related products, identify key features
Design Purpose User	Describe what they are going to make/how it works	Use drawings and labels to explain their design	Develop more than one design for a product	Follow a design brief for a specific product/user	Interview potential users to find out requirements	Undertake research to inform design process
Plan	Follow simple instructions to make a product	Know which order they need to work in	Plan a sequence of actions to make a product	Plan and test a design with limited materials/time	Develop prototypes to help with planning a product	Plan a product as part of a team with different roles

Diagrams Sketches	Explain verbally how their product works	Make a simple sketch of their design, with labels	Create labelled design drawings with annotations	Explain in writing how a product will be made	Use labelled exploded diagrams to show ideas	Use exploded diagrams with labels to show design ideas
Structures, Frameworks	Use bricks, blocks, Lego etc to create 3D structures with walls etc	Use straws, lolly sticks etc to make 3D structures that can stand on their own	Build structures using a range of materials - wood, card, corrugated plastic	Use tubes, columns and braces to stabilize structures	Strengthen structures and frames using diagonal struts and braces	Use frameworks and structures in more complex products and models
Sheet Materials	<ul style="list-style-type: none"> • Fold, tear, cut paper/card along pre drawn lines • Use paper fasteners to link • Create simple pop ups 	<ul style="list-style-type: none"> • Cut around drawn shapes • Use a hole punch • Fold and join materials with glue, tape 	<ul style="list-style-type: none"> • Cut internal shapes into paper and card • Join two different materials using glue, tape, staples 	<ul style="list-style-type: none"> • Choose the best way to join materials to suit purpose • Roll, bend and fold sheets into 3D shapes 	<ul style="list-style-type: none"> • Cut accurately to a marked line • Use prepared nets and kits to make card models 	<ul style="list-style-type: none"> • Choose sheet material for purpose • cut and fold nets accurately to form 3D shapes
Wheels, Mechanisms, Electricity	Make simple paper pop up cards based on topic	Attach wheels to chassis using a simple axle	<ul style="list-style-type: none"> • Create simple hinges • Add mechanisms that allow movement – paddles, sails 	Use some simple electrical components in their products	Begin to use mechanical systems in their products e.g. simple gears and levers	<ul style="list-style-type: none"> • Use an electrical circuit in their product • Control a model using ICT
Textiles and Fabric	<ul style="list-style-type: none"> • Cut simple shapes from fabric • Join fabrics by using glue, staples, tape • Colour fabrics using a range of techniques e.g. fabric paints, printing, painting 			<ul style="list-style-type: none"> • Use a pattern/template • Explore fastenings and recreate some e.g. sew on buttons and make loops • Use appropriate decoration techniques e.g. appliqué 		
Cooking and Food Technology	<ul style="list-style-type: none"> • Group familiar food products e.g. fruit and vegetables. • Cut ingredients safely • Prepare simple dishes-safely and hygienically-without using a heat source • Measure using non standard measures 	<ul style="list-style-type: none"> • Group foods into the five groups in The Eatwell Plate. • Cut, grate, peel ingredients safely with help • Prepare simple dishes-safely and hygienically-without using heat source. • Measure or weigh using cups or 	<ul style="list-style-type: none"> • Cut, chop and grate food accurately and safely • Know that a healthy diet is made up from a variety of different food and drink. • Measure and weigh ingredients appropriately. • Follow a recipe. 	<ul style="list-style-type: none"> • Prepare ingredients hygienically using the appropriate utensils • Use scales to measure weight in grams and kilograms • Give an opinion on different foods and 	<ul style="list-style-type: none"> • Control temp of oven/hob • Measure accurately using different equipment • Create and write down recipes, inc ingredients, methods, cooking times etc • Understand the importance of correct storage/ 	

		electronic scales.		meals after tasting	handling of ingredients.	
Evaluate and improve	<ul style="list-style-type: none"> ● Use their product and describe how it works ● Say what they like and don't like about their product and explain why. 	<ul style="list-style-type: none"> ● Describe what the original intention was ● Talk about how closely their finished product meets their design criteria. 	<ul style="list-style-type: none"> ● Identify strengths and weaknesses of their design ● Explain how they might make it better next time 	<ul style="list-style-type: none"> ● Refine work and techniques as work progresses, ● Discuss how closely their finished product meets their design criteria 	<ul style="list-style-type: none"> ● Justify their decisions about materials and methods of construction ● Consider views of others when evaluating work 	<ul style="list-style-type: none"> ● Ensure products have a high quality finish, using art skills ● Make suggestions on how their design/ product could be improved
Notable Designers, Engineers etc	Know that the job of a designer is to design useful products	Know that buildings are designed by architects	Know the names/ products of some famous designers	Know some key inventions and how they changed our lives	Know the life story of a notable designer, engineer or architect	Know about some notable design movements in history