



Yew Tree Primary School

DESIGN AND TECHNOLOGY CURRICULUM OVERVIEW

RESPONSIBILITY:

We are responsible for what we do – if it's to be, it's up to me! We are prepared, organised and recognise consequences of our actions on ourselves and others.

RESPECT:

We are respectful by treating others how we wish to be treated – using manners, being thoughtful, kind and celebrating diversity

COURAGE:

We are brave and we take chances. We develop resilience to keep going even when things are tough. We face our fears and we are not afraid to make mistakes.

AMBITION:

We believe we can achieve in anything that we put our mind to. We aim high, love learning, have a positive 'can do' attitude and aim to be the best!

PRIDE:

We are proud of who we are and where we are from. We believe in our abilities and celebrate our success. We are a family at Yew Tree!

Intent	Curriculum Aim	To offer a broad, balanced & inclusive curriculum which acts as a starting point to stimulate awe, wonder & curiosity and which encompasses 'Learning Without Limits' so that children are empowered and able to achieve their full potential.	What does this mean for Design and Technology. <ul style="list-style-type: none"> Design and technology is an inspiring, rigorous and practical subject. It should provide children with opportunities to use their creativity and imagination to solve problems both as individuals and as members of a group. Within topics, children should be able to design, make and evaluate their final products this also includes designing, making and evaluating different foods. Children will follow the following process: <ul style="list-style-type: none"> IDEAS (Investigative, disassembly and evaluative activities) FPT's (Focussed practical tasks) DMA's (Design and make activities) In our curriculum design and technology requires children to be active learners with the confidence to 'have a go,' taking risks and the resilience to persist with a project when challenges occur The design and technology curriculum is designed to help pupils to gain a broad range of subject knowledge whilst drawing on other subjects such as mathematics, science, engineering, computing and art. The children learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens.
	Curriculum Objectives	<ul style="list-style-type: none"> To develop the child as a responsible and confident citizen who is prepared to live in an ever-changing and diverse world. To develop the child as an individual who embraces challenge and makes the most of every opportunity to learn. To develop the child as a life-long learner who has a range of skills, which ensure a high level of achievement. 	



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Design and Technology Key Skills Progression

Area	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Generating ideas (Design)	<p>Develop their own ideas and explore a variety of resources, including blocks and construction kits to create 'small worlds' and objects linked to their interests.</p> <p>Choose the right resources to carry out their own plan (physical dev)</p>	Create, share ideas and use a variety of resources to make products inspired by existing products, stories or their own ideas, interests or experiences.	Create a design to meet simple design criteria.	Generate and share their ideas through a range of different methods.	Develop design criteria.	Use annotated sketches and exploded diagrams to test and share their ideas.	Use pattern pieces and computer-aided design packages to design a product.	Create design criteria sharing ideas clearly in a range of ways.
Topics where covered	<p>Me and My Community</p> <p>Once Upon a Time</p> <p>Dangerous Dinosaurs</p> <p>Big Wide World</p>	All projects	<p>Taxi Chop, Slice and Mash</p> <p>Puppets</p>	<p>Beach Hut</p> <p>Remarkable Recipes</p> <p>Christmas Cards</p>	<p>Stone Age Pouches</p> <p>Cook well, eat well</p> <p>Structures</p>	<p>Structures</p> <p>Fresh food, good food</p>	Architecture	<p>A Child's War</p> <p>Electrical</p> <p>Programming</p>
Comparing and Contrasting (Design)	Share their creations with others and begin to notice how the work of others is the same or different to their own.	Describe what, why and how something was made and compare with others. Look closely at similarities and differences (Understanding the World)	Describe the similarities and differences between two products.	Compare different types of the same product and explain their similarities and differences.	Explain the similarities and difference between the work of two designers	Create a comparison table to compare two or more products.	Survey users in groups and compare results.	Produce a report that compares two or more products or inventions.
Topics where covered	Throughout projects	<p>Build it Up</p> <p>Lets Explore</p> <p>Stories and rhymes</p>	<p>Taxi!</p> <p>Puppets</p>	Christmas Cards	Stone Age Pouches	Fresh food, good food	Eat the Seasons	<p>Make do and mend</p> <p>CAM mechanisms</p>

Use of ICT (Make)	Begin to use digital devices to record their creations.	Use digital devices to take pictures or recordings of their creations.	Use design software to create a simple plan for a design.	Use ICT to create a simple labelled design or plan.	Write a program to make something move on a tablet or computer screen.	Write a program to control a physical device, such as a light, speaker or buzzer.	Link a physical device to a computer or tablet so that it can be controlled	Link a physical device to a computer or tablet so that it can be controlled by a program.
Topics where covered	Throughout projects	Animal Safari		Beach Hut				Electrical programming
Using tools (Make)	Explore simple tools practically and experiment with joining materials.	Choose and explore tools for simple practical tasks.	Select the appropriate tool for a practical task.	Select the appropriate tool for a task and explain their choice. <i>E.g. scissors, wood, cardboard</i>	Use tools safely for cutting and joining materials and components. <i>E.g. junior hacksaws, bench hooks, hammer, nails, needles, glue gun</i>	Select, name and use tools with adult supervision. <i>E.g. junior hacksaws, bench hooks, hammer, nails, needles, glue gun</i>	Name and select increasingly appropriate tools for a task and use them safely. <i>e.g. needles, hacksaws, bench hooks, knives, drills</i>	Select appropriate tools for a task and use them safely and precisely. <i>e.g. needles, hacksaws, bench hooks, knives, drills</i>
Topics where covered	Exploring Autumn Once Upon a Time	Build it up Long Ago	Taxi! Chop, Slice and Mash Puppets	Beach Hut Remarkable Recipes Christmas Cards	Rocks Relics and Rumbles – Structures Stone Age Pouches	Invasion - Structures	Firedamp and Davylamp – Torches	CAM toy Make Do and Mend Electrical Programming
Materials (Design and Make)	Explore and choose freely from a variety of materials when making. Select and use resources with support when needed (PSED)	Select appropriate materials when constructing and making. Constructs with a purpose in mind using a variety of resources	Select and use a range of materials, beginning to explain their choices.	Choose appropriate components and materials and suggest ways of changing them to achieve the desired effect.	Plan which materials will be needed for a task and explain why. Join materials accurately.	Choose from a range of materials based on their properties.,	Select and combine materials precisely.	Choose the best materials for a task, showing an understanding of their characteristics.
Topics where covered	Once upon a time Dangerous Dinosaurs Sunshine and Sunflowers	Build it Up Long Ago Animal Safari	Taxi!	Beach Hut Christmas Cards	Rocks, relics and rumbles - structures Stone Age Pouches	Misty Mountain, Winding River Warp and Weft Structures Mechanisms	Architecture Firedamp and Davy lamp – mining torch	Mechanisms – CAM toy Make do and mend
Safety (Make)	Begin to know that tools and equipment need to be used safely and listen to adults. Follow rules when using these. Work with others when moving large equipment.	Follow rules and instructions to keep safe.	Follow the rules to keep safe from danger during a practical task.	Work safely and hygienically in DT activities.	Use appliances safely with adult supervision. Electrical appliances must only be used under the supervision of an adult.	Work safely with everyday chemical products under supervision, such as disinfectant hand wash and surface cleaning spray.	Explain the function and purpose of safety features.	Demonstrate how their products take into account the safety of the user.
Topics where covered	All projects	All projects	All projects	All projects	All projects	All projects	Mining lamps	All projects

Evaluate	Talk about their creations with others and answer questions about how they are made.	Change and refine their work as they are constructing and making. Recognise that it is possible to change and alter their designs and ideas as they are making them.	Talk about their own and each other's work, identifying strengths or weaknesses and offering support.	Explain how closely their finished products meet their design criteria and say what they could do better in the future.	Suggest improvements to their products and describe how to implement them, beginning to take the views of others into account.	Identify what has worked well and what aspects of their products could be improved, acting on suggestions,	Test and evaluate products against a detailed design specification and make adaptations as they develop the product.	Demonstrate adaptations made to a product as a result of ongoing evaluation.
Topics where covered	Once upon a Time Sparkle and Shine! Dangerous Dinosaurs	Build it up Animal Safari	Taxi! Chop, Slice and Mash Puppets	Christmas Cards Beach Hut Remarkable Recipes	Stone Age Pouches Structures Cook Well, Eatwell	All DT projects	All DT projects	All DT projects
Products in everyday life (Evaluate)	Name and explore a range of everyday products and explore how things work.	Name and explore a range of everyday products and begin to talk about how they are used.	Name and explore a range of everyday products and describe how they are used.	Explain how an everyday product could be improved.	Explain how an existing product benefits the user.	Investigate and identify the design features of a familiar product.	Explain how the design of a product has been influenced by the culture or society in which it was designed or made.	Analyse how an invention or product has significantly changed or improved people's lives.
Topics where covered	Sunshine and Sunflowers	Let's Explore	Taxi!	Beach Hut	Rocks Relics and rumbles - structures	Misty Mountains, Winding River Fresh food, Good food	Ground-breaking Greeks (Architecture) Firedamp and Davy lamp (miner's torch)	Make do and mend Electrical mechanisms
Significant people (Evaluate)	Begin to talk about important products	Explore significant products.	Describe why a product is important.	Explain why a designer or inventor is important.	Describe how key events in design and technology have shaped the world.	Explain how and why a significant designer or inventor shaped the world.	Describe the social influence of a significant designer or inventor.	Present an account of the significance of a designer or inventor.
Topics where covered		All projects	Taxi! School Days (Chop, Slice and mash)	Magnificent monarchs (remarkable recipes)	Cook well, eat well Structures	Warp and Weft Fresh food, good food	Architecture Firedamp and Davy Lamps – mining torches	Choose the most appropriate project

Structures (Technical Knowledge)	Make simple structures using a range of materials.	Construct simple structures and models using a range of materials.	Construct simple structures, models or other products using a range of materials.	Explore how a structure can be made stronger, stiffer and more stable.	Create shell or frame structures using diagonal struts to strengthen them.	Prototype shell and frame structures, showing awareness of how to strengthen, stiffen and reinforce them.	Build a framework using a range of materials to support mechanisms.	Select the most appropriate materials and frameworks for structures, explaining what makes them strong.
Topics where covered	Once Upon A Time Starry Night Dangerous Dinosaurs	All projects		Beach Hut	Rocks, Relics and Rumbles	Invasion - Structures	Architecture	
Electricity (Technical Knowledge)	Explore battery powered objects using switches to turn them off and on.	Identify products that use electricity to make them work.	Identify products that use electricity to make them work and describe how to switch them on and off.	Create an operational, simple series circuit.	Include a simple series circuit into a model.	Include circuits that use a variety of components into models or products.	Use more complex electrical circuits in their models or products, showing an understanding of control.	Understand and use electrical circuits that include a variety of components and use programming to control their products.
Topics where covered	Starry Night	Ongoing	School Days			This could be covered through the science in Year 4.	Firedamp and Davy Lamps	Electrical programming
Mechanisms (Technical Knowledge)	Explore, build and play with a range of resources and construction kits with wheels. Choose the right resources to carry out their own plan (PD)	Explore, build and play with a range of resources and construction kits with wheels and axles. Constructs with a purpose in mind using a variety of resources (e.g. making vehicles).	Use wheels and axles to make a simple moving model.	Use a range of mechanisms (levers, sliders, wheels and axles) in models or products. (Use slides / levers to make a Christmas card)	Explore and use a range of mechanisms (levers, sliders, axles, wheels and cams) in models or products.	Explore and use a range of mechanisms (levers, axles, cams, gears and pulleys) in models or products. Make a mechanism to move stones to build pyramids	Use mechanical systems in their products, such as pneumatics and hydraulics.	Explain and use mechanical systems in their products to meet a design brief. (CAM operated toys)
Topics where covered	Big Wide World	Lets Explore Long Ago Stories and Rhymes	Taxi!	Christmas Cards		Ancient Civilisations - Mechanisms		CAM operated toys

Textiles (Technical knowledge)	Explore materials sating what they like.	Use a variety of materials / textiles to decorate.	Cut and join textiles using glue or simple stiches with support.	Use ways to measure, mark and cut fabric and join materials including gluing and using a simple running stitch or over-stich.	Cut and join textiles including wool and threads.	Hand sew a hem using a running stich.	Use a variety of fabrics and stiches for effect.	Use a pattern. Pin and tack materials and use a variety of stiches including running, blanket and over-stitch
Topics where covered	Ongoing	Long Ago and Stories and Rhymes	Puppets		Stone Age Pouch			Make do and mend
Cooking and Nutrition (Technical Knowledge)	Explore measuring ingredients using cups and spoons. Help to prepare a range of simple healthy snacks Explore how foods taste.	Follow instructions including simple recipes that include measures and ingredients. Say healthy ingredients that can be used to make simple snacks	Measure and weigh food items using non-standard measures. Select and prepare healthy ingredients for a fruit or vegetable salad.	Prepare ingredients by peeling, grating, chopping and slicing. Know the foods needed for a balanced diet and use these to make a simple, healthy meal.	Prepare and cook a simple sweet or savoury dish. Identify the main food groups (carbohydrates, protein, dairy, fruits and vegetables, fats and sugars).	Identify and use a range of cooking techniques to prepare a simple meal. Design a healthy snack or packed lunch and explain why it is healthy.	Use a range of preparation and cooking techniques to cook a sweet or savoury dish. Evaluate meals and consider if they contribute towards a balanced diet.	Follow a recipe that uses a more complex range of techniques and source the necessary ingredients. Plan a healthy diet, justifying why a meal contributes towards a balanced diet.
Topics where covered	Provision where necessary	Lets Explore Stories and Rhymes Animal Safari	Chop Slice and Mash (School Days)	Magnificent Monarchs (Remarkable Recipes)	Cook Well, Eat Well	Fresh food, good food	Eat the Seasons	Transition activity
Where food comes from (Nutrition)	Explore and try a range of foods and suggest where they come from.	Begin to identify the origins of some foods.	Sort foods into groups by whether they are from an animal or plant source.	Identify the origin of some common foods (milk, eggs, some meats, common fruit and vegetables).	Identify and name foods that are produced in different places.	Identify and name foods that are produced in different places in the UK and wider world.	Describe what seasonality means and explain some of the benefits.	Explain how organic produce is grown.
Topics where covered	Sparkle and Shine	Animal Safari	School Days (Chop, Slice and Mash)	Magnificent Monarchs (Remarkable Recipes)	Cook well, Eatwell	Fresh food good food	Sow, Grow and Farm Eat the Seasons	