



# 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!



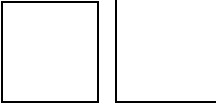
<b>Intent</b>	<b>Curriculum Aim</b>	To offer a broad, balanced & inclusive curriculum which acts as a starting point to stimulate awe, wonder & curiosity and which encompasses 'Learning Without Limits' so that children are empowered and able to achieve their full potential.	<p><b>What does this mean for Design and Technology?</b></p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• Children will follow the following process:             <ul style="list-style-type: none"> <li>- IDEAS (Investigative, disassembly and evaluative activities)</li> <li>- FPT's (Focussed practical tasks)</li> <li>- DMA's (Design and make activities)</li> </ul> </li> <li>• 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</li> <li>• 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.</li> <li>• The children learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens.</li> </ul>
	<b>Curriculum Objectives</b>	<ul style="list-style-type: none"> <li>• To develop the child as a responsible and confident citizen who is prepared to live in an ever-changing and diverse world.</li> <li>• To develop the child as an individual who embraces challenge and makes the most of every opportunity to learn.</li> <li>• To develop the child as a life-long learner who has a range of skills, which ensure a high level of achievement.</li> </ul>	






# Yew Tree Primary School

## Design and Technology Key Knowledge and Skills Overview

Term Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	TOPIC 1	TOPIC 2	TOPIC 3	TOPIC 4	TOPIC 5	TOPIC 6
<b>YN</b>	<p style="text-align: center; color: blue;"><b>Me and My Community / Exploring Autumn</b></p> <div style="display: flex; justify-content: center; gap: 10px;">   </div> <p style="text-align: center;"><b><u>Expressive art and design</u></b></p> <p>Use a variety of paper and fabric to join together to create an image of themselves of people who help us. Begin to use joining techniques (Join materials).</p> <p>Food – taste a range of harvest foods. Explore and try a range of foods</p>	<p style="text-align: center; color: blue;"><b>Once Upon a Time / Sparkle and Shine</b></p> <div style="display: flex; justify-content: center; gap: 10px;">   </div> <p style="text-align: center;"><b><u>Expressive art and design</u></b></p> <p>Make a den that would keep them safe from the wolf using a range of materials – construct with purpose (Structures).</p> <p>Make simple structures using a range of materials – make a bridge for small world models.</p> <p>Try a range of celebration foods saying what they like or dislike. (PSED)</p> <p>Share their designs with others and begin to respond to suggestions about how to improve.</p>	<p style="text-align: center; color: blue;"><b>Starry Night and Winter Wonderland</b></p> <div style="display: flex; justify-content: center; gap: 10px;">   </div> <p style="text-align: center;"><b><u>Expressive Art and Design</u></b></p> <p>Explore battery powered objects e.g. torches and lights</p> <p>Use a range of tools and objects safely when creating a moon picture.</p> <p style="text-align: center;"><i>Chinese New Year – Making Chinese new year lanterns using a range of materials and tools.</i></p>	<p style="text-align: center; color: blue;"><b>Dangerous Dinosaurs/ Puddles and Rainbows</b></p> <div style="display: flex; justify-content: center; gap: 10px;">   </div> <p style="text-align: center;"><b><u>Expressive art and design</u></b></p> <p>Choose their own materials to make a dinosaur.</p> <p>Create dinosaur worlds using logs, plants – work collaboratively.</p> <p>Share their creations and answer questions about how it was made.</p>	<p style="text-align: center; color: blue;"><b>Sunshine and Showers / Reflections</b></p> <div style="display: flex; justify-content: center; gap: 10px;">   </div> <p style="text-align: center;"><b><u>Expressive art and design</u></b></p> <p>Explain how a range of everyday products are designed to help us e.g. mirrors.</p> <p>Make minibeasts from a variety of materials including fabric. – choose independently from a wide range of materials.</p>	<p style="text-align: center; color: blue;"><b>Big Wide World and Splash</b></p> <div style="display: flex; justify-content: center; gap: 10px;">   </div> <p style="text-align: center;"><b><u>Expressive art and design</u></b></p> <p>Make vehicles with wheels</p> <p>Use a variety of resources (including blocks and construction kits) to make small worlds.</p> <p>Begin to construct, stacking blocks vertically and horizontally, making enclosures and creating spaces.</p> <p style="text-align: center;"><i>Food – explore and try a range of foods from other countries.</i></p>
<p style="color: blue;">In addition, the children will:</p> <p>Show an understanding that tools need to be used safely.</p> <p>Seek support from adults to use digital devices to take records of their creations.</p> <p>Explore simple tools in practical tasks and experiment with joining (glue, tape, scissors)</p>						

EYFS	TOPIC 1	TOPIC 2	TOPIC 3
YR	<p data-bbox="371 244 770 272"><b>Let's Explore and Build it up</b></p>  <p data-bbox="405 379 736 405"><b><u>Expressive art and design</u></b></p> <p data-bbox="338 411 806 464">Make dens and camps using a range of materials.</p> <p data-bbox="389 472 754 497">Describe what they have made</p> <p data-bbox="293 533 851 585">Collaborate with others to make a marble maze (PSED)</p> <p data-bbox="297 627 846 679">Use a variety of tools and materials to create a home</p> <p data-bbox="327 719 817 745">Use a range of materials to build a bridge.</p> <p data-bbox="479 780 665 805">Test their ideas</p> <p data-bbox="383 841 761 866">Compare what they have made.</p> <p data-bbox="418 901 725 927">Design and build a shelter</p>	<p data-bbox="947 244 1435 272"><b>Long Ago and Stories and Rhymes</b></p>  <p data-bbox="1025 379 1357 405"><b><u>Expressive art and design</u></b></p> <p data-bbox="898 411 1485 464">Use a range of materials including fabric to create a peg doll.</p> <p data-bbox="909 509 1473 561">Use construction kits and materials to create old building (provision)</p> <p data-bbox="936 601 1447 654">Construct carriages using wheels and axels (provision)</p> <p data-bbox="931 694 1451 746">Use a range of materials inclusion textiles to decorate a T-shirt.</p> <p data-bbox="1021 786 1361 812">Construct bridges (provision)</p>	<p data-bbox="1547 244 2074 304"><b>Animal Safari and Creep, Wriggle and Crawl</b></p>  <p data-bbox="1644 422 1975 448"><b><u>Expressive art and design</u></b></p> <p data-bbox="1525 454 2096 480">Create an animal home using natural resources.</p> <p data-bbox="1543 515 2078 596">Design and make an animal mask. Use techniques such as paper curling and folding. Make choices about how to hold their masks.</p> <p data-bbox="1574 636 2047 662">Create webs using a range of materials.</p> <p data-bbox="1547 697 2078 750">Use digital devices to take recordings of their creations.</p> <p data-bbox="1525 790 2096 842">Food – use healthy ingredients to make a simple snack.</p> <p data-bbox="1603 850 2013 876">Begin to identify the origins of food</p>
<p data-bbox="1055 1093 1328 1118"><b>In addition children will:</b></p> <p data-bbox="674 1125 1664 1150">Use digital devices to take a digital record of their creations to share with others.</p> <p data-bbox="674 1157 1704 1182">Safely use a variety of equipment including scissors and glue and other joining materials.</p> <p data-bbox="875 1189 1503 1214">Learn to solve problems and talk about their designs.</p> <p data-bbox="860 1220 1518 1246">Recognise foods that are healthy and unhealthy (PSED)</p> <p data-bbox="898 1252 1480 1278">Suggest ingredients that could be healthy snacks.</p>			

KS1 and KS2	TOPIC 1	TOPIC 2	TOPIC 3
Y1	<p><b>Childhood + Funny faces</b></p> <p><b>Textiles</b> Design, make and evaluate a puppet.</p>  <p><b>Key Skills</b> Explore and evaluate – a range of puppets Use tools safely and accurately. Explore ways of joining materials e.g. glue, staples, sewing.</p>	<p><b>Bright Light, Big City + Taxi</b></p> <p><b>Mechanisms (wheels, axles, chassis)</b> Design and make a taxi</p>  <p><b>Key skills</b> Explore and evaluate – describe why products are important Explore everyday products Use a range of equipment – selecting the appropriate tool for joining and cutting. Make a moving model Understand and use wheels, axels and chassis in their products.</p>	<p><b>School Days + Street View</b></p> <p><b>Cooking and Nutrition</b> Design a salad for the use in our school or for the Queen's Jubilee.</p>  <p>(Use chop, slices and mash).</p> <p><b>Key skills</b> Select healthy ingredients for a fruit or vegetable salad. Use a selection of tools appropriate for a task. Chop, slice, grate, mix</p>
<p><b>In all projects children will:</b> Follow the rules to keep safe in practical tasks. <u>Design</u> Create a design to meet simple design criteria Describe the similarities and differences between two products <u>Make</u> Select the appropriate tools for a simple practical task <u>Evaluate</u> Talk about their own work and each others identifying strength and weaknesses</p>			

Y2

**Movers and Shakers + Still Life**

**Mechanisms**

Make a Christmas Card that includes levers and or sliders.



**Key skills**

Use a range of mechanisms in their products (levers and sliders)  
Compare items that are the same.

**Coastlines + Beach hut**

**Structures**

Design and make a beach hut



**Key skills**

Investigate the structure and purpose of beach huts.  
Construct models using small world  
Use ICT software to create and label their design or plan.  
Explore strengthening techniques.  
Using wood to make structures  
Select the appropriate materials for a task.

**Magnificent Monarchs + Portraits and Poses**

**Cooking and Nutrition**

Design and make a recipe fit for a Royal Banquet (use Cornerstones – Remarkable Recipes DT unit)



**Key Skills**

Prepare food using a range of equipment to prepare food by peeling, slicing, grating and chopping.  
Understand the origins of food.  
Food tasting.  
Express their opinions on food. Understand a healthy diet and apply these principles.

**In all projects children will:**

Work safely and hygienically in construction and cooking activities.

Design

Generate and communicate their ideas through a range of different methods.

Make

Select the appropriate tool for their task and explain their choice.

Evaluate

Explain how closely their finished product meets their design criteria and say what they could do better in the future.

**Y3**

**Through the Ages + Prehistoric Pots**

**Textiles**

Make a Stone Age pouch / purse using a range of stitches.



**Key skills**

Investigating different types of pouch  
Use a running stitch or an over stitch  
Make a template  
Measure, mark and cut fabric  
Add designs  
Explain findings and make comparisons  
Evaluate and suggest improvements

**Rocks, Relics and Rumble + Ammonite**

**Structures**

Design, make and evaluate a structure that will withstand an earthquake



**Key Skills**

Create shell or frame structures using diagonal struts to strengthen them.  
Explain how an existing product can benefit the user.  
Use appliances safely under adult supervision e.g. glue gun.  
Use wood or nails to join.

**Emperors and Empires + Mosaic Masters**

**Cooking and Nutrition**

Make street food – Tacos (Use Cook well, Eat well)



**Key skills**

Understand the principles of a healthy and varied diet.  
Prepare food using a range of equipment safely including electrical appliances.  
Use preparation techniques including chopping, de-seeding, slicing, skinning  
Cook a simple savoury dish  
Identify and name food groups and their origins.  
Use ICT to design and make food packaging

**In all projects children will:**

**Design**

Develop design criteria to inform a design.

**Make**

Use tools safely for cutting and joining materials and components (including hacksaws, bench hooks, glue, nails, staples)

**Evaluate**

Suggest improvements to their products and describe how to implement them, beginning to take the views of others into account.  
Evaluate their work.

**Y4**

**Invasion + Warp and Weft**

**Structures**

Make Anglo Saxon homes using wood.



**Key skills**

Design a prototype and make framed structures (Saxon homes)

Use strengthening, stiffening and reinforcing techniques – gluing several layers of card, using triangular shapes, using ‘jinx’ corners and diagonal struts.

Use tools including hacksaws, bench hooks, glue guns (nails and hammers),

**Misty Mountain, Winding River + Vista**

**Cooking and Nutrition**

Make a healthy, packaged snack



**Key skills**

Use a variety of cooking techniques  
Prepare a simple traditional meal  
Investigate and identify design features, materials and techniques.

Compare 2 or more products.  
Use techniques such as boiling, baking, frying, roasting

Follow food hygiene practises

Research Maya chocolate

Make own chocolate

Experiment with taste and texture of the chocolate.

Explore foods introduced by Maya civilisation, taste and consider if this is a healthy diet.

**Ancient Civilisations**

**Mechanisms**

Pulleys or Gears – creating a mechanism to transport materials for pyramid building.



**Key skills**

Explore and use a range of mechanisms (levers, axles, cams, gears, pulleys) in models or products.

Use a variety of tools appropriate to the task.

**In all projects, children will:**

**Design**

Investigate and identify the design features of a familiar product.  
Use annotated sketches and exploded diagrams to test and communicate their ideas.

**Make**

Select name and use tools with adult supervision (scissors, craft knives, junior hacksaws, bench hooks, glue guns, nails, hammers)

**Evaluate**

Identify what has worked well and what aspects of their products could be improved (including acting on suggestions)

**Y5**

**Firedamp and Davy Lamp**

**Electrical circuits**  
Creating a mining torch

**Significant people**  
Inventor of the Davy lamp



**Key skills**  
Design and make a mining lamp, which includes an electrical circuit that can be controlled.  
Describe the significance or influence of an invention  
Use electrical circuits in models.

**Sow, grow and farm + Eat the Seasons**

**Cooking and Nutrition**  
Making seasonal soup



**Key skills**  
Explore and name a range of produce.  
Describe seasonality and explore its benefits  
Use good food hygiene skills.  
Use an increasing variety of preparation techniques: peeling, dicing, steaming and grating.  
Cook in a variety of ways.  
Evaluate meals and how they contribute to healthy diets.

**Ground-breaking Greeks + Architecture**

**Structures**  
Create a new building with specific features.



**Key skills**  
Explain how the design of a product has been influenced by the culture or society in which it was designed or made.  
Build a framework using a range of supports – cross braces, diagonal struts, post and lintel structures  
Identify how buildings have developed over time.

**In all projects children will:**

Design

Create detailed designs to communicate their ideas.

Make

Name and select increasingly appropriate tools for a task and use them safely. E.g. hacksaws, chisels

Select and combine materials with precision.

Evaluate

Test and evaluate detailed design specification and make adaptations as they develop the product.

**Y6**

**Maafa**

**Mechanisms**

Using pneumatics or CAMS to make a pop-up toy for Christmas.

<https://www.youtube.com/watch?v=50VqWWRyN9A>



**Key skills**

Explore and use pneumatic systems.  
Know that pneumatic systems use energy that is stored as compressed air.  
Select and combine materials with precision.

**Frozen Kingdoms + Inuit**

**Electrical systems to programme, control and monitor.**

Design and make a programmable Micro:bits to track Arctic animals.



**Key Skills**

Explore and use mechanical systems in their products to meet a design brief (Focus on CAMS)  
Create a comparative report about two or more products.  
Combine materials with precision.

**A Child's War + Make Do and Mend**

**Textiles**

Choose an item to make – bookmark, pin cushion, pencil case



**Key skills - Textiles**

Compare and contrast products and materials used  
Create a comparative report about two or more products  
Deconstruct garments  
Join materials using sewing techniques

**In all projects children will:**

Design

Develop design criteria for a functional and appealing product that is fit for purpose, communicating ideas clearly in a range of ways.  
Choose the best materials for a task showing an understanding of their characteristics.

Make

Select the appropriate tools for a task and use them safely and precisely (chisels, needles, pins, drill)

Evaluate

Use ongoing evaluation to demonstrate modifications to designs.

As a transition project Year 6 could make food to celebrate leavers.