

Essential Knowledge

Subject: D&T

Thread: Cooking, Healthy Diet, Seasonality

Nursery	I can use simple tools to help prepare food e.g knives and spoons. I can make healthy choices about food and drink.	
Year R Core Knowledge	I know that some foods can be grown. I can talk about foods I like and dislike. I know I need to eat a range of different foods to stay healthy. I can use a knife safely chop soft fruit and spread spreads to help prepare foods (sandwiches, pancakes, chopped fruit)	'Healthy Me' (PSHE) Ongoing

EYFS Goal

PSED - Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of **healthy food choices**.

PD – Use a range of small tools, including scissors, paint brushes and cutlery

Year 1 Core Knowledge	I can understand there are different types of bread. I can talk about how to make bread.	Cooking and nutrition – making bread.
Year 2 Core Knowledge	I know how to make a fruit salad, understanding healthy options and seasonality. I know how to cut safely using a bridge cut.	Healthy Me - Fruit kebabs

Key Stage One End point

- Use the basic principles of a varied diet to prepare dishes
- Understand where food comes from

Year 3 Core Knowledge	I understand some breads and fillings are healthier. I understand how to chop food safely using bridge cuts and force cuts.	Cooking and nutrition – sandwiches
Year 4 Core Knowledge	I understand what seasonality is and work safely using the cutting techniques and grating techniques learnt. I can join filo pastry to create a parcel.	Cooking and nutrition- West African Lime Cake
Year 5 Core Knowledge		
Year 6 Core Knowledge	I understand seasonality. I know what a healthy and varied diet looks like and I can apply it to the food/dishes that we plan and make. I have knowledge of national UK dishes- discussing the source, seasonality, and characteristics of the ingredients. I can select and prepare ingredients, using an awareness of taste, texture and smell to plan, make and evaluate traditional dishes. I can adapt and combine ingredients and add seasoning. I know how to use an oven safely when baking and use the following utensils, knife, bowl, spoon, grater, measuring spoon, measuring jug and weighing scales.	Traditional British dishes- link to Geography unit

Key Stage Two End point

- Understand seasonality and know how and where a variety of ingredients are grown, reared, caught and processed.
- Understand and apply the principles of a varied and healthy diet
- Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques

Essential Knowledge

Subject: Subject: D&T

Thread: Cutting, Shaping, Joining, & sewing

textiles, joining and finishing

Nursery	I can hold scissors correctly to make snips in paper. I can use a hole punch. I can join different materials using glue (pritt stick and runny glue), masking tape and sellotape.	
Year R Core Knowledge	I can thread with pre-punched holes I can join using glue, tape, split pin, stapler, treasury tags I can use a flange to join a tube to a structure I can use scissors to cut felt and join felt with glue	'Ticket to Ride'
EYFS Goal PD – Use a range of small tools, including scissors, paint brushes and cutlery EAD – Safely use and explore a variety of materials, tools, and techniques, experimenting with colour, design, texture, form and function		
Tools	Stapler, hole punch, treasury tags, split pin, scissors, glue	
Year 1 Core Knowledge	I can use a running stitch to make joins and template to make peg doll clothes. I understand how to join a cog to an axle and fix thread <i>Tools: Large Needle with big eye,</i>	Sewing – creating a peg doll. Winding Up
Year 2 Core Knowledge	I know how to attach my axle and adjust to make wheels and axles turn. I know how to measure and saw safely using a hacksaw. I join materials using a split pin to make a pivot. <i>Tools: Sharp knife – bridge cut, hacksaw with adult supervision, hole punch</i>	Africa – safari jeep Moving Pictures, Sliders
Stage One End point <ul style="list-style-type: none"> Select from and use a range of tools and equipment to perform practical tasks, for example, cutting, shaping, joining and finishing. Select from and use a wide range of materials for components, including construction materials, textiles according to their characteristics. 		
Year 3 Core Knowledge	I know how to join sheet material to make a 3D shape using tabs. <i>Tools: Knife – spreading, cutting fork/knife - slicing</i>	Cheese packaging
Year 4 Core Knowledge	I can combine component parts to ensure a sound is made I can use computer programme to create a lighting sequence and link it an electric circuit. I know how to join filo pastry with water. I understand how to create cross stich, hatch stich to embroider binka I understand how to overstitch to start and end stitching <i>Tools: Tape measure, crocodile clips, batteries, bulb holders, flat sheet materials</i>	Lighting Up Victorian book mark or Xmas decoration
Year 5 Core Knowledge	I can measure, mark and cut accurately from a design and use a hacksaw I can set up a working station to use a hacksaw safely – check children learn for progression from yr 2 I can cut dowelling using a hacksaw safely I can join a jinx frame using a diagonal cut and straight cut. I can use triangles to strengthen corners on a jinx frame I can use a drill to make holes for a working handle and attach to a mechanism I can mount a mechanism in a box <i>Tools: Hacksaw, clamp, bench board, drill, wire strippers, connector strips, motor mounting clips, batteries,</i>	Mars Rover Cams
Year 6 Core Knowledge	I can create an accurate pattern for a slipper, allowing for a seam allowance I know how to use a running stitch and have an understanding of blanket and backstitch I understand how to use a pattern carefully to avoid wastage of material I can use the most appropriate stich to join fabric together	Sewing slippers

	I can plan who product is for and finish accordingly with aesthetic embroidery design.	
	Tools: Needle, thread, scissors	
Key Stage Two End point Select from and use a wider range of equipment to perform practical tasks for example, cutting, shaping, joining and finishing accurately. Select from and use a wider range of materials and components including construction materials, textiles according to their functional and aesthetic qualities.		

Essential Knowledge		
Subject: D&T	Thread: Mechanisms	
Nursery		
Year R Core Knowledge	I understand how to make paper models stiffer using card and tape I can make a simple picture with a flap I can name and use a split pin, stapler, glue, hole punch and tape	'Once upon a time' Flaps & Flanges
EYFS Goal PD – Use a range of small tools, including scissors, paint brushes and cutlery EAD – Safely use and explore a variety of materials, tools, and techniques, experimenting with colour, design, texture, form and function		
Year 1 Core Knowledge	I understand sewing is used to join materials I understand sewing can create patterns and help decorate. I can use scissors to cut fabric based on a pattern I know what I need to do first. I know how to make a winder and the effect of a larger cog	Peg Dolls Winding up
Year 2 Core Knowledge	I know how levers can make a part move using a pivot. I know the difference between a fixed and moving axle I understand how to make a vehicle move using a fixed axle with rotating wheels, or moving axles with fixed wheels attached.	Moving pictures – levers & sliders Moving vehicles – fixed and non-fixed axles
Key Stage One End point <ul style="list-style-type: none"> Build structures, exploring how they can be made stiffer, stronger and more stable. Explore how they use mechanisms, e.g. levers, sliders, wheels and axles in their products. 		
Year 3 Core Knowledge	I know that air can make something move and this is a force I know that a pneumatic system forces air to create movement I can name some products (whistle, pump, party blowers) that use air in their movement I know that it pneumatics required a sealed unit to get a working mechanism	Moving Monsters (Links to Science forces and magnets) pneumatics
Year 4 Core Knowledge	I can apply knowledge of an electric circuits and conductors in a product I know how to use coding to control the lighting sequence I can assemble electrical components to connect my product to a computer programme	Lightboxes Electric circuits Cross curricular with coding
Year 5 Core Knowledge	I understand the effect of a longer wire, increased battery voltage in a circuit. I know how to combine a pulley system with an electric motor. I understand how different cams can create a different movement I understand different cams produce different movements I understand a “guide” will help keep the follower in place I can make a handle and add it to a shaft to turn a mechanism I understand how to make and attach a handle using tool	Mars Rovers – Science unit CAMS – Wooden Toys

Year 6 Core Knowledge	I can carry out research to look at how different building are strengthened e.g. when making an earthquake proof building. I understand use of shapes, cross beams and stiffening materials can contribute to a stable structure. I can use cross-bracing as a technique to strengthen structures. I can use tools to measure and cut accurately	Earthquake proof structures
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Key Stage Two End point

- Apply understanding of how to strengthen, reinforce more complex structures
- Understand how to use mechanical systems in their produces (for examples gears, pulleys, cams, levers and linkages)
- Understand and use electrical systems in their products (for example series, circuits, involving switches, buzzers, bulbs and motors).
- Apply their understanding of computing to program, monitor and control their products.

Essential Knowledge

Subject: D&T

Thread: Design and Evaluation

Nursery Core Knowledge	I explore materials, to develop my ideas about how to use them and what to make. I can choose what to make and then decide which materials to use to express them.	
Year R Core Knowledge	I can talk about how I made something.	

EYFS Goals

EAD – Share their creations, explaining the process they have used

Year 1 Core Knowledge	Design: I can discuss product outcomes and possible solutions to problems	Cooking and nutrition – making bread. Sewing – peg dolls. Mechanisms – winders
Year 2 Core Knowledge	I can develop design ideas based on research. I can communicate my ideas through talking, drawing and labelling using a plan or bird's eye view. I can use my plan and design to make my product I can consider how my choice will be prepared and presented to be appealing. I can share my work and evaluate my design and finished product based on design criteria.	Vehicles – fixed axle and non-fixed axle Moving pictures – sliders and levers

Key Stage One End point

- Design purposeful, functioning and appealing products for themselves and other users based on design criteria
- Generate, model and develop their ideas through talking, drawing, mock-ups, and where appropriate information and communication technology
- Explore and evaluate a range of existing products
- Evaluate their ideas and products against design criteria

Year 3 Core Knowledge	I can evaluate my design and making process and consider improvements. I can develop and communicate their ideas through discussion, annotated sketches, exploded diagrams and prototypes. I can investigate and analyse a range of existing products exploring purpose and functionality, materials used and construction.	
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	<p>I can consider the views of others to improve my work.</p> <p>I can select from a range of materials according to their functional properties and aesthetic qualities.</p>	
<p>Year 4 Core Knowledge</p>	<p>I can develop my design ideas based on research.</p> <p>I can adapt my design based on prototypes made to overcome issues in the design stage.</p> <p>I can select from a range of materials according to their functional properties and aesthetic qualities.</p> <p>I can incorporate electronic programming into the design process</p>	<p>Cooking and nutrition</p> <p>Musical instruments</p> <p>Light up landmark</p>
<p>Year 5 Core Knowledge</p>	<p>I can consider different types of design and develop ideas further, including computer aided design processes.</p> <p>I can design a CAM movement appropriate for the task</p> <p>I can evaluate my 3D model from a design</p> <p>I can evaluate my model to see if it is fit for purpose</p>	<p>Mars Rover</p> <p>3D Sculptures</p> <p>Birds</p>
<p>Year 6 Core Knowledge</p>	<p>I can investigate and apply principles into the design stage.</p> <p>I can create accurate patterns to match my designs using annotated sketches.</p> <p>I can carry out research to support the design stage.</p> <p>I can design and build a structure to meet a design criterion and evaluate this against the design brief.</p>	<p>British traditional dishes</p> <p>Sewing a slipper</p> <p>Building a structure</p>

Key Stage Two End point

- Use research and develop design criteria to inform the design of innovative, purposeful, appealing products that are fit for purpose, aimed at particular individuals or groups
- Generate, develop, model and communicate their design ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer aided design.
- Investigate and evaluate a range of existing products
- Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- Understand how key events and individuals in design and technology have helped shape the world.