



Intent / Aims

Our Design and Technology programme offers a coherent, planned sequence of high-quality teaching that will equip pupils with knowledge skills and concepts required by the national curriculum.

This teaching of Design and Technology encompasses the acquisition of four key areas of learning:

- Make
- Design
- Evaluate
- Cook and Nutrition

The coverage of within EYFS is based upon understanding the experiences of world around them and expressive arts and design

Within KS1, using themes such as Donaldson's delights , Save our saves, which allow children to develop their knowledge and understanding of the four key areas of learning with support.

As pupils progress through KS2, their knowledge of the Design and Technology programme will be refined in order for the children to take risk, become resourceful, innovative, enterprising and capable children.

Implementation

In order for children to know more and remember more there is a structure to each lesson whereby prior learning and revision of facts is built in. Through revisiting and consolidating our previous knowledge our lessons help children build on prior knowledge alongside introducing new knowledge, skills and challenges. Within these lessons revision and introduction of related key vocabulary, which builds year on year, is also built in. This vocabulary is then included in display materials and additional resources available to aid the learning.

Adult guidance and accurate knowledge is provided for each theme studied via the medium term plan and assimilated to the children through their learning journey and each individual lessons learning objective.

Through these lessons, we intend to develop a love of Design and Technology and an understanding in how the world around us works.

Impact

The impact of using a full range of resources, including display materials, will be seen across the school with an increase in the profile of Design and Technology. The learning environment across the school will be more consistent with Design and Technology vocabulary displayed, spoken and used by all learners. The use of the Art and Design and Technology hub will all the children access to apply their knowledge and skills in a real life context preparing them, within a safe environment , to be lifelong learners.

Impact will be measured through key questioning built into lessons, child-led assessment against the L.O. of each lesson and the creation of an assessment piece - I know so I will be able to - per theme studied.

By EOEYFS children will know:

To make a simple product using scissors.

To understand the importance of washing hands for good personal hygiene and why.

By EOKS1children will know:

To independently measure, cut and join a range of materials.

To evaluate a pre-given product.

To follow safety procedures.

By EOKS2 children will know:

To accurately and independently design, make and evaluate a product for a chosen target audience.

To apply the rules of food hygiene and safely use appliances



	EYFS Knowledge and Skills	Year 1 Knowledge and Skills	Year 2 Knowledge and Skills	Year 3 Knowledge and Skills	Year 4 Knowledge and Skills	Year 5 Knowledge and Skills	Year 6 Knowledge and Skills
NC Objectives	Safely use and explore a variety of materials, tools and techniques. Experimenting with design, texture, form and function.	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 and components, including construction materials, textiles and ingredients, according to their characteristics		select from and use a wider range of tools and 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 and ingredients, according to their functional properties and aesthetic qualities			
Make	<p>Explore a variety of materials and the use of simple tools</p> <p>Cutting and measuring: With help measure, mark out, cut, shape and score a range of paper</p> <p>Assemble with support:</p> <p>Joining: Talk about how to join paper based materials together.</p> <p>Health and Safety: How to use the tools under supervision.</p>	<p>Features: Looking at features, sizes and shapes of existing items to base own model on.</p> <p>Skills: Rolling, cutting, shaping and mark making with a variety of tools to create a finished product.</p> <p>Cutting and measuring: Measuring and cutting material to the correct size and shape for their finished product.</p> <p>Assemble, Join and combine: Children will learn to join clay using scoring techniques and adding water. They will finish their product by smoothing the joins. Using other resources available to add decoration to product.</p> <p>Finishing: Use simple finishing techniques to improve the appearance of their product e.g. smoothing</p>	<p>Cutting: Saws and pinking shears Cut, shape and join fabric to make a simple product. Use basic sewing techniques</p> <p>Assemble, Join and combine with support:</p> <p>Finishing: Choose and use appropriate finishing techniques— introduce sandpaper</p> <p>End product: Making look appealing for others</p> <p>Health and Safety: Use hand tools safely and appropriately</p>	<p>Cutting: work safely and accurately with a range of simple tools</p> <p>Select tools and techniques for making their product</p> <p>Measure, mark out, cut, score and assemble components with more accuracy</p> <p>Joining using a range of materials:</p> <p>Measure, tape or pin, cut and join fabric with some accuracy</p> <p>Use finishing techniques strengthen and improve the appearance of their product.</p>	<p>Cutting: Select appropriate tools and techniques for making their product Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques</p> <p>Joining using a range of materials and range of ways:</p> <p>Join and combine materials and components accurately in temporary and permanent ways</p> <p>Sew using a range of different stitches, weave and knit</p> <p>Measure, tape or pin, cut and join fabric with some accuracy</p> <p>Use finishing techniques strengthen and improve the appearance of their product.</p> <p>Use simple graphical communication techniques</p>	<p>Cutting: Select appropriate materials, tools and techniques Measure and mark out accurately Use skills in using different tools and equipment safely and accurately</p> <p>Joining using a range of materials and range of ways with increasing accuracy:</p> <p>Cut and join with accuracy to ensure a good-quality finish to the product</p> <p>Achieve a quality product for a range of audiences with increased aesthetic qualities using the computer to create specific images/logos</p>	<p>Cutting: Select appropriate tools, materials, components and techniques</p> <p>Assemble components make working models Use tools safely and accurately</p> <p>Construct products using permanent joining techniques</p> <p>Make modifications as they go along Pin, sew and stitch materials together create a product</p> <p>Joining using a range of materials and range of ways with accuracy:</p> <p>Achieve a quality product for a range of audiences with increased aesthetic qualities using the computer to create specific images/logos</p>



	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Knowledge and Skills	Knowledge and Skills	Knowledge and Skills	Knowledge and Skills	Knowledge and Skills	Knowledge and Skills	Knowledge and Skills
NC Objectives	Children use what they have learnt about media and materials in original ways thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology.	design purposeful, functional, appealing products for themselves and other users based on design criteria generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology		use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design			
Design	Explore media and materials to build up knowledge and experiences to begin to generate/recreate ideas and designs. Suggest ideas and discuss what they are going to do. Identify a purpose for their design.	Draw on their own experience to help generate ideas Suggest ideas and verbally explain/draw what they are going to do Identify a target group/purpose for what they intend to design and make	Generate ideas by drawing on their own and other people's experiences Develop their design ideas through discussion, observation, drawing and modelling, templates and mock ups linked to sewing (paper patterns) Identify a target group /purpose for what they intend to design and make	Generate ideas from research for an item, considering its purpose and the user/s via discussion Identify a purpose and establish criteria for a successful product. Draw up a specification for their design via an annotated sketch/photograph and making simple pattern pieces Begin to explore how to design using a CAD programme Plan the order of their work, using given materials, tools and techniques	Generate ideas, considering the purposes for which they are designing via discussion Identify a purpose and establish criteria for a successful product. Draw up a specification for their design via an annotated sketch/photograph and making simple pattern pieces and prototypes Use a CAD programme to design a product Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail Plan the order of their work, using given materials, tools and techniques	Generate ideas through brainstorming and identify a purpose for their product aimed at a particular audience Draw up a specification for their design via an exploded diagram and cross-sectional diagram using a CAD programme, and prototypes Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making if the first attempts fail Plan the order of their work, choosing appropriate materials, tools and techniques	Generate ideas through brainstorming and identify a purpose for their product aimed at a particular audience Draw up a specification for their design via an exploded diagram and cross-sectional diagram using a CAD programme, and prototypes Develop a design specification of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making if the first attempts fail Plan the order of their work, choosing appropriate materials, tools and techniques



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	Knowledge and Skills	Knowledge and Skills	Knowledge and Skills	Knowledge and Skills	Knowledge and Skills	Knowledge and Skills	Knowledge and Skills
NC Objectives	Children answer how and why questions about their experiences and in response to stories and events.	explore and evaluate a range of existing products evaluate their ideas and products against design criteria		investigate and analyse 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			
Evaluate	Talk about their product and what they like about it/what they would change next time and why?	Evaluate a range of existing products by discussing how well it works in relation to the purpose. (disassemble paper and card products) Evaluate their products as they are developed, identifying strengths and possible changes they might make Evaluate their product by answering questions about what they have made and how they have gone about it	Evaluate a range of existing products by discussing how well it works in relation to the purpose (disassemble products) Evaluate their products as they are developed, identifying strengths and possible changes they might make Talk about their ideas, saying what they like and dislike about them, what they would change next time	Evaluate their product against original design criteria <i>e.g. how well it meets its intended purpose</i> Disassemble and evaluate familiar products to support and enhance their design. Evaluate their products as they are developed, identifying strengths and possible changes they might make Talk about their ideas, saying what they like and dislike about them, what they would change next time to make it more effective for the target audience. (Peers) understand how key events and individuals in design and technology have helped shape the world linked to design topic.	Evaluate their work both during and at the end of the assignment Evaluate their products carrying out appropriate tests Disassemble and evaluate familiar products to support and enhance their design. Evaluate their products as they are developed, identifying strengths and possible changes they might make Talk about their ideas, saying what they like and dislike about them, what they would change next time to make it more effective for the target audience. (Peers) understand how key events and individuals in design and technology have helped shape the world linked to design topic.	Evaluate a product against the original design specification Evaluate it personally and seek evaluation from others Disassemble and evaluate familiar products to support and enhance their design. Use ICT to research. Evaluate their products as they are developed, identifying strengths and possible changes they might make Talk about their ideas, saying what they like and dislike about them, what they would change next time to make it more effective for the target audience. (Community/adults) Asking questions about the suitability Understand how key events and individuals in design and technology have helped shape the world linked to design topic.	Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests Disassemble and evaluate familiar products to support and enhance their design. Use ICT to research. Evaluate their products as they are developed, identifying strengths and possible changes they might make Talk about their ideas, saying what they like and dislike about them, what they would change next time to make it more effective for the target audience. (Community/adults) Asking questions about the suitability understand how key events and individuals in design and technology have helped shape the world linked to design topic.



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	Knowledge and Skills	Knowledge and Skills	Knowledge and Skills	Knowledge and Skills	Knowledge and Skills	Knowledge and Skills	Knowledge and Skills
NC Objectives	Children know the importance for good health and physical exercise, and a healthy diet and talk about ways to keep healthy and safe. They manage their own basic hygiene.	use the basic principles of a healthy and varied diet to prepare dishes understand where food comes from.					
Cooking and Nutrition	Explore, discuss and sort a range of healthy/unhealthy foods and why it is important. Introduce a healthy plate. Hygiene: Learn about the importance of washing hands.	Show a range of fruit & Veg. Where have they come from (animals are meat, eggs come from chickens, milk from cows) and how they grow? (Linked to seasons) What is a healthy diet? Select and use appropriate fruit and vegetables, processes and tools Grow a food source from seed e.g. cress to use within a recipe. Use basic food handling, hygienic practices and personal hygiene	Eating the right amounts of different types of food. Know and understand a healthy and varied diet including drinks. Grow a food source from seed e.g. lettuce to use within a recipe. Follow safe procedures for food safety and hygiene	To know and understand the nutritional value of what they eat/drink during different seasons. Increase knowledge of food sources and how they are processed. E.g fish, veg Grow a food source from seed e.g. potatoes to use within a recipe. Weighing and measuring, chopping, mixing, blending, heating/cooling, grating Demonstrate hygienic food preparation and storage. Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens	To know and understand the nutritional value of what they eat/drink during different seasons. Sugar and salt. Increase knowledge of food sources and how they are processed. E.g. Introduce the concept of the environmental impact of a food e.g. bananas Weighing and measuring, chopping, mixing, blending, heating/cooling, grating Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens	To know and understand the nutritional value of what they eat/drink during different seasons. Fats. Increase knowledge of food sources and how they are processed. Environmental impact and sustainability of food sources. Weighing and measuring more accurately, chopping, mixing, blending, heating/cooling, grating/following a recipe Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens	To know and understand the nutritional value of what they eat/drink during different seasons and the impact on the way their bodies function. Revisiting fats, sugar and salt. Increase knowledge of food sources and how they are processed. Environmental impact and sustainability of food sources. Weighing and measuring more accurately, chopping, mixing, blending, heating/cooling, grating/following a recipe Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens



	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Knowledge and Skills	Knowledge and Skills	Knowledge and Skills	Knowledge and Skills	Knowledge and Skills	Knowledge and Skills	Knowledge and Skills
Vocabulary	Materials, scissors, tools, paper, card, lines, circles, soft, hard, rough, smooth, bumpy, texture, join, cut, purpose, product, change. Healthy, unhealthy, germs, fruit, vegetables.	Previous years vocabulary. Features, size, shape, rolling, coiling, cutting, shaping, measuring, scoring, decoration, finishing, appearance, manipulate, folding, layering, stronger, stiffer, slider, lever, target group, evaluate, purpose, strengths, diet, food source, seed, hygiene.	Previous years vocabulary. Thin, thick, soft wood, saws (Junior hack saws), pinking shears, safely, appropriately, mechanisms, plating, yarn, stable, wheels, axels, movement, observation, drawing, modelling, templates, mock ups, weaknesses, varied, different types of food, food safety.	Previous years vocabulary. woven, hessian, accurately, assemble, strengthen, improve, stiffen, criteria, specification, annotated sketch, pattern, CAD programme, design, criteria, support, enhance, effective, nutritional value, processed, weighing, measuring, chopping, mixing, blending, heating, cooling, grating, prepare, seasons.	Previous years vocabulary. hammer, temporary, permanent, stitch, weave, knit, sew, monitor, program, circuit, successful, prototypes, process, disassemble, sugar, salt, environmental impact, hazards.	Previous years vocabulary. craft knife, rotation, axels, gears, pulleys, exploded diagram, cross-sectional diagram, self-evaluate, suitability, fats, sustainability, recipe, grown, reared, caught.	Previous years vocabulary. Construct, modifications, impact, function.