



Design & Technology Progression Document

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Developing, planning and communicating ideas.	- To be able to explore different materials freely to develop ideas about how to use them and what to make. - To work collaboratively sharing ideas, resources and skills. - To construct with a purpose in mind using a variety of resources	- Begin to draw on their own experience to help generate ideas and research conducted on criteria. - Begin to develop their ideas through talk and drawings. - Suggest ideas and explain what they are going to do - Begin to identify a target group for what they intend to design and make - Model their ideas in card and paper - Develop their design ideas applying findings from their earlier research - Begin to understand the development of existing products: What they are for, how they work, materials used. Start to suggest ideas and explain what they are going to do. - Begin to understand that all food comes from plants or animals. - Explore the understanding that food has to be farmed, grown elsewhere (e.g. home) or caught. - Start to understand how to name and sort foods into the five groups in 'The Eat well plate' - Begin to understand that everyone should eat at least five portions of fruit and vegetables every day.	- Start to generate ideas by drawing on their own and other people's experiences - Begin to develop their design ideas through discussion, observation, drawing and modelling - Identify a purpose for what they intend to design and make - Identify simple design criteria - Develop their ideas through talk and simple drawings and label parts - Understand how to identify a target group for what they intend to design and make based on a design criteria. - Understand that all food comes from plants or animals. - Know that food has to be farmed, grown elsewhere (e.g. home) or caught. Understand how to name and sort foods into the five groups in 'The Eat well plate' - Know that everyone should eat at least five portions of fruit and vegetables every day. - Make templates and mock ups of their ideas in card and paper or using ICT.	- With growing confidence, generate ideas for an item, considering its purpose and the user/s - Identify a purpose and establish criteria for a successful product. - Start to plan and order the main stages of making a product before starting - Explore, develop and communicate design proposals by modelling ideas - Make drawings with labels when designing. When planning explain their choice of materials and components including function and aesthetics. - Understand how well products have been designed, made, what materials have been used and the construction technique. - Learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products. - Start to understand whether products can be recycled or reused - Start to understand that mechanical and electrical systems have an input, process and output. - Start to think about their ideas as they make progress and be willing to change things if this helps them to improve their work. - Start to know that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world. - Start to understand that a healthy diet is made up from a variety and balance of different food and drink, as depicted in 'The Eat well plate' Begin to know that to be active and healthy, food and drink are needed to provide energy for the body.	- Generate ideas, considering the purposes for which they are designing - Make labelled drawings from different views showing specific features - 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 - Identify the strengths and areas for development in their ideas and products. When planning consider the views of others, including intended users, to improve their work. - Evaluate products and identify criteria that can be used for their own designs - Understand that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world - Know that a healthy diet is made up from a variety and balance of different food and drink, as depicted in 'The Eat well plate' Know that to be active and healthy, food and drink are needed to provide energy for the body. - Start to generate ideas, considering the purposes for which they are designing- link with Mathematics and Science. Confidently make labelled drawings from different views showing specific features - Understand how more complex electrical circuits and components can be used to create functional products	- Generate ideas through brainstorming and identify a purpose for their product - Draw up a specification for their design - 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 - Use results of investigations, information sources, including ICT when developing design ideas - Understand that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world. - Begin to understand that seasons may affect the food available. - Understand how food is processed into ingredients that can be eaten or used in cooking. - Begin to understand that different food and drink contain different substances – nutrients, water and fibre – that are needed for health. - Start to generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces. - Begin to use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose. - With growing confidence apply a range of finishing techniques, including those from art and design. - Draw up a specification for their design- link with Mathematics and Science. - Use results of investigations, information sources, including ICT when developing design ideas. - Start to understand how much products cost to make, how sustainable and innovative they are and the impact products have beyond their intended purpose.	- Communicate their ideas through detailed labelled drawings - Develop a design specification - Explore, develop and communicate aspects of their design proposals by modelling their ideas in a variety of ways - Plan the order of their work, choosing appropriate materials, tools and techniques - Understand how mechanical systems such as cams or pulleys or gears create movement. - Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces. - Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose - Accurately apply a range of finishing techniques, including those from art and design. - Draw up a specification for their design- link with Mathematics and Science. Plan the order of their work, choosing appropriate materials, tools and techniques. - Suggest alternative methods of making if the first attempts fail. Identify the strengths and areas for development in their ideas and products. - Know how much products cost to make, how sustainable and innovative they are and the impact products have beyond their intended purpose. - Know that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world. - Understand that seasons may affect the food available. - Understand how food is processed into ingredients that can be eaten or used in cooking. - Know different food and drink contain different substances – nutrients, water and fibre – that are needed for health.



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Working with tools, equipment, materials and components to make quality products (inc- food)	- To begin to construct vertically and horizontally to create enclosures and make spaces. - To confidently select and use tools for a purpose. - To confidently select tools and techniques needed to shape, assemble and join materials. - To safely and competently use tools and resources. - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.	- Begin to make their design using appropriate techniques - With help measure, mark out, cut and shape a range of materials - Use tools <i>eg scissors and a hole punch</i> safely - Begin to assemble, join and combine materials and components together using a variety of temporary methods e.g. glue or masking tape - Select and use appropriate fruit and vegetables, processes and tools - Use basic food handling, hygienic practices and personal hygiene - Use simple finishing techniques to improve the appearance of their product - Make templates and mock ups of their ideas in card and paper or using ICT. - Begin to build structures, exploring how they can be made stronger, stiffer and more stable. - Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. - Know how to prepare simple dishes safely and hygienically, without using a heat source. - Know how to use techniques such as cutting, peeling and grating.	- Begin to select tools and materials; use vocab' to name and describe them - With help measure, cut and score with some accuracy - Use hand tools safely and appropriately - Start to assemble, join and combine materials in order to make a product - Follow safe procedures for food safety and hygiene - Choose and use appropriate finishing techniques - Build structures, exploring how they can be made stronger, stiffer and more stable. - Start to choose and use appropriate finishing techniques based on own ideas. - Demonstrate how to prepare simple dishes safely and hygienically, without using a heat source. - Demonstrate how to use techniques such as cutting, peeling and grating.	- Select a wider range of tools and techniques for making their product. i.e. construction materials and kits, textiles, food ingredients, mechanical components and electrical components. Explain their choice of tools and equipment in relation to the skills and techniques they will be using. - Measure, mark out, cut, score and assemble components with more accuracy - Work safely and accurately with a range of simple tools - Think about their ideas as they make progress and be willing to change things if this helps them improve their work - Start to measure, tape or pin, cut and join fabric with some accuracy - Demonstrate hygienic food preparation and storage - Use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT - Start to understand that mechanical systems such as levers and linkages or pneumatic systems create movement. Measure, mark out, cut, score and assemble components with more accuracy. - Start to work safely and accurately with a range of simple tools. - Understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source. - Begin to understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.	- Select a wide range of appropriate tools and techniques for making their product safely. - Know how to measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques - Start to join and combine materials and components accurately in temporary and permanent ways - Use simple graphical communication techniques - Understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source. - Know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. - Know how mechanical systems such as cams or pulleys or gears create movement. - Understand how to reinforce and strengthen a 3D framework. - Begin to use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT.	- Confidently select appropriate materials, tools, components and techniques and use them - Measure and mark out accurately - Use skills in using different tools and equipment safely and accurately - Assemble components to make working models. Aim to make and to achieve a quality product. - Weigh and measure accurately (time, dry ingredients, liquids) - Apply the rules for basic food hygiene and other safe practices e.g. <i>hazards relating to the use of ovens</i> - Cut and join with accuracy to ensure a good-quality finish to the product - Know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source. - Start to understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. - Demonstrate when making modifications as they go along. Construct products using permanent joining techniques. Understand how mechanical systems such as cams or pulleys or gears create movement - Know how to reinforce and strengthen a 3D framework	- Select appropriate tools, materials, components and techniques e.g. 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. - Assemble components to make working models - Use tools safely and accurately - Construct products using permanent joining techniques - Make modifications as they go along - Achieve a quality product. - Demonstrate how to use skills in using different tools and equipment safely and accurately with growing confidence to cut and join with accuracy to ensure a good-quality finish to the product. Weigh and measure accurately (time, dry ingredients, liquids). - Use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT. - Know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source. - Understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.
Evaluating processes and products	- To build upon their previous learning refining their ideas and developing ways to represent them. - Share their creations, explaining the process they have used.	- Evaluate their product by discussing how well it works in relation to the purpose - Evaluate their products as they are developed, identifying strengths and possible changes they might make - Evaluate their product by asking questions about what they have made and how they have gone about it	- Evaluate against their design criteria - 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	- Evaluate their product against original design criteria e.g. <i>how well it meets its intended purpose</i> - Disassemble and evaluate familiar products	- Evaluate their work both during and at the end of the assignment - Evaluate their products carrying out appropriate tests	- Evaluate a product against the original design specification - Evaluate it personally and seek evaluation from others	- Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests - Record their evaluations using drawings with labels - Evaluate against their original criteria and suggest ways that their product could be improved



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