

PROGRESSION OF DISCIPLINARY KNOWLEDGE – Design Technology

Design (research, planning, decision making)

FS2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Begin to work with a range of materials and equipment:</p> <p>To be encouraged to think about and discuss what they want to make.</p> <p>To begin to discuss problems and how they might be solved as they arise.</p> <p>To begin to draw simple designs they would like to create.</p>	<p>To generate ideas based on experience and talk about what the product is going to do.</p> <p>To develop design ideas using simple research.</p> <p>To use pictures and words to design a product following design criteria.</p>	<p>To generate ideas based on their own and others' experience.</p> <p>To develop designs by using discussion, observation, labelling and modelling.</p> <p>To explain a product's purpose, how it will work and how the user has influenced the design.</p> <p>To explain why simple choices of materials and tools have been made.</p>	<p>To begin generating original ideas for a product, explaining its purpose and suitability for the user.</p> <p>To create a plan that shows how a product is constructed and which tools and materials will be used.</p> <p>To follow a given design criteria.</p> <p>To explore design proposals and model ideas in different ways.</p>	<p>To generate original ideas, considering the purpose, order of making and materials that will be used.</p> <p>To use research to assist in gathering ideas.</p> <p>To employ more rigour in design by annotating in detail, showing different views of the product and using prototypes.</p> <p>To suggest improvements for a design.</p>	<p>To create specifications for designs.</p> <p>To consider the needs and wants of others when designing a product, ensuring that it is fit for purpose through research and reviewing.</p> <p>To use cross-sectional plans, annotated sketches, pattern pieces and models.</p> <p>To use ICT and other information sources when developing a design.</p>	<p>To create own design specification and criteria.</p> <p>To communicate ideas through a range of visual strategies, including the use of ICT and exploded diagrams.</p> <p>To begin developing innovative solutions in a design.</p> <p>To make design decisions based on availability, cost and practicality.</p>

Make
(using appropriate tools, assembling, creating)

FS2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>To begin to talk about what they are making and their plans.</p> <p>To be supported to use different techniques for joining materials.</p> <p>To work safely.</p> <p>To use a range of materials and tools with increasing care and precision.</p>	<p>To explain what is being made and why.</p> <p>To select from a choice of tools to cut, shape, finish and join.</p> <p>To measure, mark out, cut and shape safely with support.</p> <p>To assemble, join and combine materials together using a range of temporary methods (such as glue and tape).</p>	<p>To explain what is being made and how it fits the design brief.</p> <p>To measure, cut and score with some degree of accuracy.</p> <p>To choose from a range of materials and explain the choices.</p> <p>To use finishing techniques to make a product look good.</p>	<p>To select tools and techniques for making a product.</p> <p>To begin measuring, marking, cutting and shaping components with increasing accuracy.</p> <p>To begin assembling, joining and combining materials with increasing accuracy.</p> <p>To measure, tape, cut, pin and join fabric together with an increasing degree of accuracy.</p>	<p>To select tools and equipment and explain choices in relation to the required techniques.</p> <p>To select the appropriate materials that are fit for purpose, explaining choices.</p> <p>To measure, mark out, cut and shape materials with greater accuracy.</p> <p>To sew using a range of different stitches.</p> <p>To work through a plan and understand whether a product will be of good quality or not.</p>	<p>To select the appropriate tools, materials and techniques.</p> <p>To use tools and equipment safely and accurately.</p> <p>To create and follow detailed step-by-step plans.</p> <p>To begin to be resourceful with practical problems.</p>	<p>To assemble components and make working models.</p> <p>To construct products using permanent joining techniques.</p> <p>To make modifications throughout the manufacturing process.</p> <p>To pin, sew and stitch materials together to make a product.</p>

Evaluate (reflect, critique, evaluate, communicate)

FS2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>To talk about how they made their product.</p> <p>To reflect on how they achieved their aims.</p> <p>To discuss any problems encountered.</p> <p>To return to and build on previous learning, saying how they might make their product even better (with support).</p>	<p>To evaluate a product by discussing how well it works in relation to the design brief.</p> <p>To talk about existing products, considering their use, how they work, who they are for and where they might be used.</p> <p>To offer opinions on existing products.</p> <p>To begin talking about how products can be made better.</p>	<p>To evaluate their product against the design brief.</p> <p>To discuss their ideas, saying what they like and dislike about them.</p> <p>To express a personal opinion about existing products.</p> <p>To talk about what could be done differently if the product were made again.</p>	<p>To evaluate their product against the original design brief and consider how well it meets its intended purpose.</p> <p>To evaluate existing products, considering how well they have been made, which materials have been used and whether they are fit for purpose.</p> <p>To disassemble and evaluate familiar products.</p> <p>To begin learning about notable products, manufacturers, inventors, designers and engineers.</p>	<p>To evaluate their product both during and at the end of the assignment.</p> <p>To explain how the original product can be improved before the manufacturing process begins.</p> <p>To know about notable products, manufacturers, inventors, designers and engineers.</p> <p>To research whether products and materials can be re-used or re-cycled.</p>	<p>To evaluate a product personally and to seek evaluation from others.</p> <p>To evaluate the quality of a design and product whilst designing and making.</p> <p>To test and evaluate a finished product.</p> <p>To research how sustainable materials are.</p> <p>To talk about key products, manufacturers, inventors, designers and engineers.</p>	<p>To test and evaluate their own products, identifying strengths and areas for development.</p> <p>To offer and accept evaluation of others, recording their advice and using it to modify a product.</p> <p>To record evaluations in some detail including written notes, sketches and labels.</p> <p>To evaluate products on a wider basis (i.e. sustainability, cost of materials, innovation, copyright etc.)</p> <p>To consider the impact of products beyond their intended purpose.</p>

Technical Knowledge

(exploring and understanding how to build and create)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>To know that some objects are made from different materials and begin to describe them.</p> <p>To learn different techniques for joining such as tape and glue.</p>	<p>To begin measuring and joining materials with some support.</p> <p>To begin describing the properties of materials.</p> <p>To suggest ways to strengthen and stiffen the product.</p> <p>To begin understanding how to make a product look more appealing.</p> <p>To talk about colour and shape when thinking about which textiles to use.</p>	<p>To measure materials with increasing accuracy.</p> <p>To join materials in different ways.</p> <p>To use levers and slides.</p> <p>To begin to understand how to use working wheels and axles.</p> <p>To measure, cut and join textiles with some support.</p>	<p>To use the appropriate materials to make a product.</p> <p>To work accurately whilst assembling and joining materials.</p> <p>To use simple linkages and joints to create movement.</p> <p>To alter a product after checking, to improve it.</p> <p>To join different textiles in different ways.</p>	<p>To measure, cut and join materials accurately to avoid mistakes.</p> <p>To continue working on a product even if it doesn't work, using strategies to modify it.</p> <p>To grow in confidence about trying new and different ideas.</p> <p>To work with templates when shaping and cutting fabric and other materials.</p>	<p>To begin using cams, pulleys or gears to produce movement.</p> <p>To use a number of components in a circuit.</p> <p>To measure accurately enough to ensure precision.</p> <p>To reinforce and strengthen a three-dimensional structure.</p> <p>To use own template and a variety of fabric shapes when making a product.</p>	<p>To use electric motors to produce movement.</p> <p>To use ICT to control the movement of a product.</p> <p>To use different types of circuit in a product.</p> <p>To refine a product after testing, considering aesthetics, functionality and purpose.</p> <p>To use a range of joining and decorative techniques when making a strong, attractive product.</p>

Food Technology and Nutrition

(nutrition, hygiene, health and safety)

FS2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>To understand why it is important to wash hands carefully and thoroughly before they eat/ make food.</p> <p>To understand the importance of healthy eating/ food choices</p> <p>Begin to cut and prepare foods with support.</p> <p>Express likes and dislikes.</p>	<p>To use basic food handling, hygienic practices and personal hygiene.</p> <p>To select and use appropriate fruit and vegetables, processes and tools.</p> <p>To identify whether food comes from plants or animals.</p> <p>To cut, grate and peel safely with support.</p>	<p>To follow safe procedures for food safety and hygiene.</p> <p>To say where food comes from in specific terms (fruit from a tree, vegetable as a tuber underground, milk from dairy animals etc.)</p> <p>To begin describing how food is produced and how to make healthy choices.</p> <p>To cut, peel and grate with increasing confidence.</p>	<p>To carefully select ingredients and prepare them, using hygiene rules.</p> <p>To begin understanding that foods come from the UK and the wider world.</p> <p>To describe how a healthy diet comes from a variety and balance of foods and drinks, and from home-grown produce.</p> <p>To begin weighing and measuring dry ingredients with supervision.</p>	<p>To explain how to be safe and hygienic in the kitchen and around food.</p> <p>To begin to understand about food being grown, reared or caught in the UK and the wider world.</p> <p>To prepare and cook some dishes safely and hygienically.</p> <p>To use some of the following techniques: peeling, chopping, slicing, mixing, slicing, grating, spreading and baking.</p>	<p>To follow safety and hygiene guidelines in the kitchen, using a heat source where appropriate.</p> <p>To begin to understand the seasonality of foods and produce.</p> <p>To prepare and cook sweet and savoury dishes safely and hygienically.</p> <p>To weigh and measure in various ways (time, dry ingredients and liquids)</p>	<p>To prepare and cook a variety of dishes safely and hygienically, using a heat source where appropriate.</p> <p>To understand sustainability in the context of ingredients and food production in the wider world.</p> <p>To adapt recipes to change appearance, taste, texture or aroma, whilst understanding the social context of the ingredients.</p> <p>To use a range of techniques safely and confidently, such as: peeling, chopping, slicing, mixing, slicing, grating, spreading and baking.</p>

