

D.T Skills Progression Map – FS1 and FS2

Design	Make	Evaluate
<ul style="list-style-type: none"> <li>• Use senses to explore a wide range of familiar products.</li> <li>• Take simple products apart and talk about their parts and how they work.</li> <li>• Talk about and/or use construction materials, pictures and words to plan and design.</li> <li>• Talk about what has been done/made in simple terms.</li> </ul>	<ul style="list-style-type: none"> <li>• Use the senses to explore and talk about materials.</li> <li>• Use simple tools and materials with support.</li> <li>• Cut paper/card with scissors</li> <li>• Join with tape and glue e.g. strips of cardboard to form construction.</li> <li>• Roll paper and card to form a tube.</li> <li>• Add paper and card shapes to products.</li> <li>• Apply simple finishes e.g. paint.</li> <li>• Construct products that represent their own ideas, thoughts and feelings.</li>   <li>• Follow procedures for safety and hygiene</li> </ul>	<ul style="list-style-type: none"> <li>• Use the senses to explore a wide range of familiar products.</li> <li>• Talk about familiar products and what they do.</li> <li>• Talk about what has been made and the steps taken to achieve the outcome.</li> </ul>
Continuous provision - Food	Continuous provision - Structures	Continuous provision - Textiles
<ul style="list-style-type: none"> <li>• Sort fruit and vegetables by taste, shape, size, colour, texture and simple food groups e.g. meat, vegetables etc.</li> <li>• Talk about the changes that take place when food is shaped and mixed.</li> <li>• Use basic tools to cut, shape and mix e.g. cutters and whisks.</li> </ul>	<ul style="list-style-type: none"> <li>• Explore and investigate a range of simple, large construction materials e.g. cardboard boxes.</li> <li>• Use junk modelling materials to construct products.</li> <li>• Apply finishing techniques e.g. pencil, paint etc.</li> <li>• Explore building bridges and towers using large and small scale construction e.g. duplo and cardboard boxes.</li> <li>• Make simple 2D structures</li> </ul>	<ul style="list-style-type: none"> <li>• Explore, sort and group textiles by texture and colour etc.</li> <li>• Cut and stick fabrics together</li> <li>• Apply simple finishing techniques e.g. fabric, crayons, gluing on feathers, painting and printing.</li> <li>• Weave different materials</li> </ul>

## D.T Skills Progression Map - Year One

Design	Make	Evaluate
<ul style="list-style-type: none"> <li>• Draw pictures and use words to convey what they want to design/make.</li> <li>• Propose more than one idea for a product.</li> <li>• Use drawings to record ideas as they are developed.</li> <li>• Follow a design criteria.</li> <li>• Select appropriate technique by explaining: First... Next... Last.</li> <li>• Add labels to drawings to help explanations.</li> <li>• Describe their models and drawings of ideas and intentions.</li> </ul>	<ul style="list-style-type: none"> <li>• Select materials/ingredients from a limited range that will meet the design criteria.</li> <li>• Explain which materials/ingredients they are using and why.</li> <li>• Select, use and name the tools and equipment needed (e.g. cutting, shaping, joining and finishing).</li> <li>• Assemble, join and combine materials in order to make a product.</li> <li>• Discuss their work as it progresses.</li> <li>• Describe what they need to do next.</li>   <li>• Follow procedures for safety and hygiene.</li> </ul>	<ul style="list-style-type: none"> <li>• Explore existing products and how they have been made.</li> <li>• Decide how existing products do/do not achieve their purpose.</li> <li>• Talk about their design as they develop and identify good/bad points.</li> <li>• Discuss changes made during the making process.</li> <li>• Say what they like and do not like about items they have made and attempt to explain why.</li> <li>• Discuss how closely their finished product meets their design criteria and how well it meets the needs of the user.</li> </ul>
Autumn – Structures	Spring - Food	Summer – Mechanisms
<ul style="list-style-type: none"> <li>• Refer to materials, tools and techniques using appropriate vocabulary.</li> <li>• Explore how to make structures stronger.</li> <li>• Investigate different techniques for stiffening a variety of materials.</li> <li>• Test different methods of enabling structures to remain stable.</li> <li>• Make a structure more stable by widening the base.</li> <li>• Join appropriately for different materials and situations e.g. glue, tape.</li> <li>• Apply a range of finishing techniques e.g. painting and printing.</li> </ul>	<ul style="list-style-type: none"> <li>• Develop food vocabulary using taste, smell, texture and feel.</li> <li>• Group familiar food products e.g. fruit and vegetables.</li> <li>• Explain where food comes from.</li> <li>• Cut, peel, grate and chop a range of ingredients.</li> <li>• Work safely and hygienically.</li> <li>• Understand the need for a variety of foods in a diet.</li> <li>• Measure and weigh food items, non-statutory measures e.g. cups, spoons.</li> </ul>	<ul style="list-style-type: none"> <li>• Start to use technical vocabulary when describing mechanisms, tools and materials.</li> <li>• Experiment with levers and sliders to find different ways to make things move in a 2D context.</li> <li>• Join appropriately for different materials and situations e.g. glue, tape.</li> <li>• Fold, tear and cut paper and card.</li> <li>• Cut along lines, straight and curved.</li> <li>• Construct a simple slider independently.</li> <li>• Make a lever by joining card strips with paper fasteners.</li> <li>• Join levers to make linkages to create moving parts.</li> </ul>

## D.T Skills Progression Map - Year Two

Design	Make	Evaluate
<ul style="list-style-type: none"> <li>• Draw pictures and use words to convey what they want to design/make.</li> <li>• Propose more than one idea for a product.</li> <li>• Select appropriate technique by explaining: First... Next... Last.</li> <li>• Follow a design criteria.</li> <li>• Develop their design ideas through discussion, observation, drawing and modelling.</li> <li>• Explore ideas by rearranging materials/ingredients.</li> <li>• Use drawings to record ideas as they are developed.</li> <li>• Add notes/labels to drawings to help explanations. Describe their models and drawings of ideas and intentions.</li> </ul>	<ul style="list-style-type: none"> <li>• Select materials/ingredients from a limited range that will meet the design criteria.</li> <li>• Explain which materials/ingredients they are using and why.</li> <li>• Select, use and name the tools and equipment needed (e.g. cutting, shaping, joining and finishing).</li> <li>• Assemble, join and combine materials in order to make a product.</li> <li>• Discuss their work as it progresses.</li> <li>• Explain what they are making.</li> <li>• Describe what they need to do next.</li> <li>• Follow procedures for safety and hygiene.</li> </ul>	<ul style="list-style-type: none"> <li>• Explore existing products and how they have been made.</li> <li>• Decide how existing products do/ do not achieve their purpose.</li> <li>• Talk about their design as they develop and identify positive and negative points.</li> <li>• Note changes made during the making process as annotation to plans/drawings.</li> <li>• Say what they like and do not like about items they have made and attempt to explain why.</li> <li>• Discuss how closely their finished product meets their design criteria and how well it meets the needs of the user.</li> </ul>
Autumn – Food	Spring – Textiles	Summer – Mechanisms
<ul style="list-style-type: none"> <li>• Further develop food vocabulary using their senses.</li> <li>• Sort and classify foods into food groups e.g. vegetables, cereals, dairy etc.</li> <li>• Explain and understand where different foods come from.</li> <li>• Cut, peel, grate and chop a range of ingredients with accuracy</li> <li>• Work safely and hygienically.</li> <li>• Understand what a balanced diet means.</li> <li>• Measure and weigh food items using standard units and scales</li> </ul>	<ul style="list-style-type: none"> <li>• Start to use the appropriate vocabulary to refer to fabrics and tools.</li> <li>• Cut out shapes which have been created by drawing around the template of the fabric.</li> <li>• Join fabrics by using e.g. running stitch, glue, staples, tape.</li> <li>• Decorate fabrics with attached items e.g. buttons, sequins, beads, ribbons.</li> <li>• Colour fabrics using a range of techniques e.g. painting, printing.</li> </ul>	<ul style="list-style-type: none"> <li>• Start to use technical vocabulary when describing mechanisms.</li> <li>• Deconstruct a simple slider and describe how it works.</li> <li>• Construct increasingly complex sliders.</li> <li>• Join appropriately for different materials and situations e.g. glue, tape.</li> <li>• Use a range of materials to create models with wheels and axles e.g. tubes, dowel, cotton reels.</li> <li>• Attach wheels to a chassis using an axle.</li> <li>• Try out different axle fixings and evaluate their strengths weaknesses.</li> </ul>

## D.T Skills Progression Map - Year Three

Design	Make	Evaluate
<ul style="list-style-type: none"> <li>• Use research to develop a design criteria that is fit for purpose.</li> <li>• Use discussion, annotated sketches and cross-sectional diagrams to generate, develop, model and communicate their ideas.</li> <li>• Develop more than one design or adaptation of an initial design.</li> <li>• Use prototypes to develop and share ideas.</li> <li>• Plan a sequence of actions to make a product.</li> <li>• Think ahead about the order of their work and decide upon tools and materials/ingredients before beginning the making process.</li> <li>• Consider aesthetic qualities of materials/ingredients chosen.</li> </ul>	<ul style="list-style-type: none"> <li>• Select from a range of tools for cutting, shaping, joining and finishing.</li> <li>• Measure, mark out, cut, score, shape and assemble components with accuracy.</li> <li>• Work safely and accurately with a range of different tools.</li> <li>• Select from techniques for different parts of the process.</li> <li>• Select from and use a wide range of materials according to their functional properties and aesthetic qualities.</li> <li>• Use appropriate finishing techniques.</li> <li>• Follow procedures for safety and hygiene.</li> </ul>	<ul style="list-style-type: none"> <li>• Investigate and begin to analyse a range of existing products.</li> <li>• Identify the strengths and weaknesses of their design ideas in relation to the purpose/user.</li> <li>• Discuss how well the finished product meets the design criteria of the user.</li> <li>• Consider and explain how the finished product could be improved.</li> <li>• Investigate and understand how key events and individuals in Design and Technology have helped to shape the world.</li> </ul>
Autumn – Food	Spring – Structures	Summer – Mechanisms
<ul style="list-style-type: none"> <li>• Develop sensory vocabulary/knowledge using smell, taste, texture and feel.</li> <li>• Analyse the taste, texture, smell and appearance of a range of foods (predominantly savoury).</li> <li>• Follow instructions/recipes with increasing independence.</li> <li>• Understand the different food groups and the importance of a healthy and varied diet.</li> <li>• Join and combine a range of ingredients.</li> <li>• Prepare and cook using a range of cooking techniques.</li> <li>• Measure and weigh food items using standard units and scales.</li> <li>• Explore seasonality of vegetables and fruit.</li> </ul>	<ul style="list-style-type: none"> <li>• Use the correct terminology for tools, materials and processes.</li> <li>• Make rectangular frames of different sizes using strip wood.</li> <li>• Use a range of materials to make simple joints.</li> <li>• Apply their understanding of how to strengthen, stiffen and reinforce complex structures.</li> </ul>	<ul style="list-style-type: none"> <li>• Develop vocabulary related to the project.</li> <li>• Use mechanical systems such as gears, pulleys, levers and linkages.</li> <li>• Deconstruct and reconstruct a range of sliders and levers.</li> <li>• Use lolly sticks/card to make sliders, levers and linkages.</li> <li>• Use linkages to make movement larger or more varied.</li> <li>• Identify the cam within a simple mechanism and explain how movement is changed.</li> </ul>

## D.T Skills Progression Map - Year Four

Design	Make	Evaluate
<ul style="list-style-type: none"> <li>• Use research to develop a design criteria that is fit for purpose.</li> <li>• Disassemble products and describe in detail their function.</li> <li>• Use discussion, annotated sketches, cross-sectional and exploded diagrams to generate, develop, model and communicate their ideas.</li> <li>• Develop more than one design or adaptation of an initial design.</li> <li>• To use prototypes to develop and share ideas</li> <li>• Plan a sequence of actions to make a product.</li> <li>• Think ahead about the order of their work and decide upon tools and materials/ingredients before beginning the making process.</li> <li>• Propose realistic suggestions as to how they can achieve their design ideas.</li> <li>• Consider aesthetic qualities of materials/ingredients chosen.</li> </ul>	<ul style="list-style-type: none"> <li>• Use a range of appropriate tools and equipment to measure, mark out, cut, score, shape, join, assemble and finish components with accuracy.</li> <li>• Work safely and accurately with a range of different tools.</li> <li>• Select from techniques for different parts of the process.</li> <li>• Select from and use a wide range of materials according to their functional properties and aesthetic qualities.</li> <li>• Join and combine materials and components in permanent and temporary ways.</li> <li>• Use appropriate finishing techniques.</li> <li>• Produce a well-finished product that fulfils the functional and aesthetic design criteria.</li> <li>• Follow procedures for safety and hygiene.</li> </ul>	<ul style="list-style-type: none"> <li>• Investigate and analyse a range of existing products.</li> <li>• Identify the strengths and weaknesses of their design ideas in relation to the purpose/user.</li> <li>• Discuss how well the finished product meets the design criteria of the user.</li> <li>• Consider and explain how the finished product could be improved.</li> <li>• Investigate and understand how key events and individuals in Design and Technology have helped to shape the world.</li> </ul>
Autumn – Textiles	Spring – Mechanisms	Summer – Food
<ul style="list-style-type: none"> <li>• Use correct vocabulary appropriate to the project.</li> <li>• Join fabrics using running stitch, over-sewing, blanket stitch.</li> <li>• Prototype a product using old materials.</li> <li>• Use prototype to make a pattern.</li> <li>• Explore strengthening and stiffening of fabrics.</li> <li>• Explore fastenings (inventors) and recreate some.</li> <li>• Sew on buttons and make loops.</li> <li>• Use appropriate decoration techniques.</li> </ul>	<ul style="list-style-type: none"> <li>• Develop vocabulary related to the project.</li> <li>• Create a range of sliders and levers to produce a horizontal and vertical movements.</li> <li>• Combine sliders and levers to produce a range of movements.</li> <li>• Use linkages to make movement larger or more varied.</li> <li>• Use mechanical systems such as gears, pulleys, levers and linkages.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to develop sensory vocabulary/knowledge using smell, taste, texture and feel.</li> <li>• Understand seasonality, know where and how a variety of ingredients are grown, reared, caught and processed.</li> <li>• Follow instructions/recipes.</li> <li>• Prepare and cook using a range of cooking techniques.</li> <li>• Discuss the impact of changing proportions within a recipe and use knowledge of food and cooking to generate recipes</li> <li>• Talk scientifically about the physical and chemical changes that take place when food is cooked.</li> </ul>

## D.T Skills Progression Map - Year Five

Design	Make	Evaluate
<ul style="list-style-type: none"> <li>• Generate plans and designs based on research and ideas that take account of the users' views and the intended purpose.</li> <li>• Link discussions about ideas, plans and designs to the investigation, disassembly and evaluation of a range of products, describing in detail their parts and their function.</li> <li>• Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.</li> <li>• Produce detailed and annotated designs that include accurate measurements.</li> <li>• Devise step by step plans, which include the appropriate materials, tools and techniques they intend to use.</li> <li>• Sketch alternative ideas before deciding which design idea to develop.</li> </ul>	<ul style="list-style-type: none"> <li>• Use and increasing range of appropriate tools to measure, mark out, cut, score, shape, join, assemble and finish components with accuracy.</li> <li>• Join and combine a range of materials and components using the most effective permanent or temporary way.</li> <li>• Identify and apply an appropriate finishing technique to ensure that a high-quality end product meets the design criteria.</li> <li>• Refine their product- review and rework.</li> <li>• Follow procedures for safety and hygiene.</li> </ul>	<ul style="list-style-type: none"> <li>• Use analysis of existing products and accurate factual information from book and web-based research to inform their own work.</li> <li>• Test, evaluate and refine ideas and products against a specification, taking into account the views of the intended user and the products purpose.</li> <li>• Consider and explain how the finished product could be improved related to their design criteria.</li> <li>• Identify strengths and weaknesses of design ideas.</li> <li>• Use the correct technical vocabulary to evaluate their product.</li> <li>• Investigate and understand developments in design technology, it's impact on individuals, society and the environment.</li> </ul>
Autumn – Food	Spring – Structures	Summer – Textiles
<ul style="list-style-type: none"> <li>• Prepare mostly savoury dishes using their own selection of ingredients, taking into account their nutritional properties and sensory characteristics.</li> <li>• Weigh and measure using scales.</li> <li>• Select and prepare foods for a particular purpose.</li> <li>• Work safely and hygienically.</li> <li>• Develop and understanding of a healthy diet and apply in their ingredient choices.</li> <li>• Use a range of cooking techniques.</li> <li>• Join and combine a widening range of ingredients.</li> <li>• Understand seasonality, know where and how a variety of ingredients are grown, reared, caught and processed.</li> </ul>	<ul style="list-style-type: none"> <li>• Use the correct terminology for tools, materials and processes.</li> <li>• Create nets of increasingly complex 3D shapes which include addition of gluing tabs</li> <li>• Reinforce and strengthen 3D framework using the concept of 'triangulation'.</li> <li>• Build a range of structures using a wide range of effective materials.</li> <li>• Explain in detail why some structures fail.</li> <li>• Use a range of materials to make joints e.g. card strips, elastic bands, thread and ties, and plastic tubing.</li> </ul>	<ul style="list-style-type: none"> <li>• Use correct vocabulary appropriate to the project.</li> <li>• Create 3D products using pattern pieces</li> <li>• Prototype a product using old materials</li> <li>• Use prototype to make a pattern.</li> <li>• Understand pattern layout.</li> <li>• Pin and tack fabric pieces together.</li> <li>• Use a wide range of techniques to add colour, texture and pattern to fabric.</li> <li>• Join fabrics using over-sewing, back stitch or blanket stitch.</li> <li>• Sew on buttons and make loops</li> <li>• Make quality products.</li> </ul>

## D.T Skills Progression Map - Year Six

Design	Make	Evaluate
<ul style="list-style-type: none"> <li>• Generate plans and designs based on research and ideas that take account of the users' views and the intended purpose.</li> <li>• Link discussions about ideas, plans and designs to the investigation, disassembly and evaluation of a range of products, describing in detail their parts and their function.</li> <li>• Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.</li> <li>• Produce detailed and annotated designs and plans from a range of viewpoints that include accurate measurements.</li> <li>• Devise step by step plans, which could be followed by someone else to make their product, choosing appropriate materials, tools and techniques,</li> <li>• Sketch and model alternative ideas before deciding which design idea to develop.</li> </ul>	<ul style="list-style-type: none"> <li>• Use and increasing range of appropriate tools to measure, mark out, cut, score, shape, join, assemble and finish components with accuracy and precision.</li> <li>• Join and combine a range of materials and components using the most effective permanent or temporary way.</li> <li>• Make and adapt prototypes, mock ups and templates where necessary.</li> <li>• Identify and apply an appropriate finishing technique to ensure that a high-quality end product meets the design criteria.</li> <li>• Refine their product- review and rework.</li> <li>• Produce costings using spreadsheets for products they design and make.</li> <li>• Follow procedures for safety and hygiene and understand the process of a risk assessment.</li> </ul>	<ul style="list-style-type: none"> <li>• Use analysis of existing products and accurate factual information from book and web-based research to inform their own work.</li> <li>• Test, evaluate and refine ideas and products against a specification, taking into account the views of the intended user and the products purpose.</li> <li>• Test their finished product on a user and discuss how well their product meets the needs of the user.</li> <li>• Consider and explain how the finished product could be improved related to their design criteria.</li> <li>• Identify strengths and weaknesses of design ideas.</li> <li>• Give an evaluation report using the correct technical vocabulary.</li> <li>• Investigate and understand developments in design technology, it's impact on individuals, society and the environment.</li> </ul>
Autumn – Textiles	Spring – Electrical systems	Summer – Mechanisms
<ul style="list-style-type: none"> <li>• Develop vocabulary for tools, materials and their properties.</li> <li>• Select the appropriate materials to create a product.</li> <li>• Join fabrics using running stitch, over-sewing, blanket stitch.</li> <li>• Prototype a product using old materials.</li> <li>• Use the prototype to create increasingly complex patterns and templates with more than one part that are accurately measured.</li> <li>• Explore strengthening and stiffening of fabrics.</li> <li>• Explore fastenings (inventors) and recreate some.</li> <li>• Sew on buttons and make loops.</li> <li>• Identify the most effective finishing technique in order to maximise the aesthetic value of the product.</li> </ul>	<ul style="list-style-type: none"> <li>• Develop technical vocabulary appropriate to the project.</li> <li>• Explore and describe how switches can be used in a range of circuits to control components. E.g. lights in a lighthouse, a movement sensor in a burglar alarm.</li> <li>• Explore and use an increasing range of complex control systems e.g. a light, sensor etc.</li> <li>• Use and control electrical systems such as motors, buzzers and bulbs.</li> <li>• Program, monitor and control their products using ICT.</li> </ul>	<ul style="list-style-type: none"> <li>• Use a range of technical vocabulary to describe the properties and functions of mechanisms.</li> <li>• Use mechanical systems such as levers, cams, pulleys and gears.</li> <li>• Choose and use sliders and levers accurately to create a range of movements and effects.</li> <li>• Discuss the relationship between a cam and follower, an off-centre cam, a peg cam, a pear-shaped cam and a snail cam.</li> </ul>