DT Progression Grid

<table>
<tr><th colspan="3">National Curriculum</th></tr>
<tr><th>Early Years Framework</th><th>KS1 National Curriculum Aims (Year 1/2)</th><th>KS2 National Curriculum Aims (Year 3/4)</th></tr>
<tr><td rowspan="2">ELG: Speaking

Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary.</td><td colspan="2">Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].</td></tr>
<tr><td>ELG: Creating with Materials

Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function

Share their creations, explaining the process they have used.

ELG: Fine motor skills

Use a range of small tools, including scissors, paintbrushes and cutlery.</td><td>Use the basic principles of a healthy and varied diet to prepare dishes and understand where food comes from.</td><td>Understand and apply the principles of a healthy and varied diet, prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques, understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</td></tr>
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Subject Progression Grid- Knowledge Progression

Theme	EYFS	Year 1	Year 2	Year 3	Year 4
Technical Knowledge		Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] and select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics **Technical knowledge** • 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. As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. • use the basic principles of a healthy and varied diet to prepare dishes • understand where food comes from.		Evaluate - understand how key events and individuals in design and technology have helped shape the world **Technical knowledge** • apply their understanding of how to strengthen, stiffen and reinforce more complex structures • understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] • understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] • apply their understanding of computing to program, monitor and control their products As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. • understand and apply the principles of a healthy and varied diet • understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.	

Subject Progression Grid- Skills Progression

Theme	EYFS	Year 1	Year 2	Year 3	Year 4
Designing Understanding contexts, users and purposes	**ELG: Listening, Attention and Understanding** • Hold conversation when engaged in back-and-forth exchanges with their teacher and peers. **ELG: Speaking** • Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary. **ELG: Self-Regulation** • Set and work towards simple goals, being able to wait for what they want and control their immediate impulses when appropriate.	**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** • work confidently within a range of contexts, such as imaginary, story-based, home • state what products they are designing and making • say whether their products are for themselves or other users • describe what their products are for • say how their products will work • say how they will make their products suitable for their intended users • use simple design criteria to help develop their ideas		**Design - 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** • work confidently within a range of contexts, such as the home, school and the wider environment • describe the purpose of their products • indicate the design features of their products that will appeal to intended users • explain how particular parts of their products work **In early KS2 pupils should also:** • gather information about the needs and wants of particular individuals and groups • develop their own design criteria and use these to inform their ideas • develop a simple design specification to guide their thinking	

Generating, developing, modelling and communicating ideas		• generate ideas by drawing on their own experiences • use knowledge of existing products to help come up with ideas • develop and communicate ideas by talking and drawing • model ideas by exploring materials, components and construction kits and by making templates and mock ups • use information and communication technology, where appropriate, to develop and communicate their ideas	• share and clarify ideas through discussion • model their ideas using prototypes and pattern pieces • use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas • use computer-aided design to develop and communicate their ideas • generate realistic ideas, focusing on the needs of the user • make design decisions that take account of the availability of resources
Making Planning	**ELG: Creating with Materials** • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. **ELG: Managing self** • Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. **ELG: Fine motor skills** • Use a range of small tools, including scissors, paintbrushes and cutlery.	**Make - 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** • plan by suggesting what to do next • select from a range of tools and equipment, explaining their choices • select from a range of materials and components according to their characteristics	**Make -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** • select tools and equipment suitable for the task • explain their choice of tools and equipment in relation to the skills and techniques they will be • using • select materials and components suitable for the task • explain their choice of materials and components according to functional properties and • aesthetic qualities • In early KS2 pupils should also: • order the main stages of making
Practical skills and techniques		• follow procedures for safety and hygiene • use a range of materials and components, including construction materials and kits,	• follow procedures for safety and hygiene • use a wider range of materials and components than KS1, including construction materials and kits,

	ELG: Creating with Materials • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. • Share their creations, explaining the process they have used.	textiles, food ingredients and mechanical components • measure, mark out, cut and shape materials and components • assemble, join and combine materials and components use finishing techniques, including those from art and design	textiles, food ingredients, mechanical components and electrical components In early KS2 pupils should also: • measure, mark out, cut and shape materials and components with some accuracy • assemble, join and combine materials and components with some accuracy • apply a range of finishing techniques, including those from art and design, with some accuracy
Evaluating Own ideas and products	**ELG: Listening, Attention and Understanding** • Hold conversation when engaged in back-and-forth exchanges with their teacher and peers. **ELG: Speaking** • Offer explanations for why things might happen, making use of recently introduced vocabulary from stories, non-fiction, rhymes and poems when appropriate;	**Evaluate -explore and evaluate a range of existing products** **Evaluate their ideas and products against design criteria** • talk about their design ideas and what they are making • make simple judgements about their products and ideas against design criteria • suggest how their products could be improved	**Evaluate - 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** • Identify the strengths and areas for development in their ideas and products • consider the views of others, including intended users, to improve their work In early KS2 pupils should also: • refer to their design criteria as they design and make • use their design criteria to evaluate their completed products • Evaluate their ideas and products against their original design specification
Existing products		• what products are • who products are for • what products are for • how products work	• how well products have been designed • how well products have been made • why materials have been chosen • what methods of construction have been used

		• how products are used • where products might be used • what materials products are made from what they like and dislike about products	• how well products work • how well products achieve their purposes • how well products meet user needs and wants In early KS2 pupils should also investigate and analyse: • who designed and made the products • where products were designed and made • when products were designed and made • whether products can be recycled or reused
Technical knowledge Making products work		**Technical knowledge - 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.** Pupils should know: • about the simple working characteristics of materials and components • about the movement of simple mechanisms such as levers, sliders, wheels and axles • how freestanding structures can be made stronger, stiffer and more stable • that a 3-D textiles product can be assembled from two identical fabric shapes • that food ingredients should be combined according to their sensory characteristics • the correct technical vocabulary for the projects they are undertaking	**Technical knowledge -apply their understanding of how to strengthen, stiffen and reinforce more complex structures** **Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]** **Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]** **Apply their understanding of computing to program, monitor and control their products.** Pupils should know: • how to use learning from science to help design and make products that work • how to use learning from mathematics to help design and make products that work • that materials have both functional properties and aesthetic qualities • that materials can be combined and mixed to create more useful characteristics • that mechanical and electrical systems have an input, process and output • the correct technical vocabulary for the projects they are undertaking In early KS2 pupils should also know:

			• how mechanical systems such as levers and linkages or pneumatic systems create • movement • how simple electrical circuits and components can be used to create functional products • how to program a computer to control their products • how to make strong, stiff shell structures • that a single fabric shape can be used to make a 3D textiles product • that food ingredients can be fresh, pre-cooked and processed
Cooking & Nutrition Where food comes from	**ELG: Managing self** • Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices. • Set and work towards simple goals, being able to wait for what they want and control their immediate impulses when appropriate. **ELG: Fine motor skills** • Use a range of small tools, including scissors, paint brushes and cutlery	Pupils should know: • that all food comes from plants or animals • that food has to be farmed, grown elsewhere (e.g. home) or caught	Pupils should 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
Food preparation, cooking and nutrition		Pupils should know: • how to name and sort foods into the five groups in the eat well plate • that everyone should eat at least five portions of fruit and vegetables every day • how to prepare simple dishes safely and hygienically, without using a heat source • how to use techniques such as cutting, peeling and grating	Pupils should know: • how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source • how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking In early KS2 pupils should also 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 • that to be active and healthy, food and drink are needed to provide energy for the body
Key events and individuals		N/A	Pupils should know about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products