Design Technology Progression

| | EYFS | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
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| Design | Develop their own ideas and then decide which materials to use to express them. Create collaboratively, sharing ideas, resources and skills | I generate ideas by drawing on my own experiences and using knowledge of existing products. I can state what my product is and who it is for (myself or others) I am beginning to generate and communicate my ideas through talking, drawing and the use of templates and mock ups. I design purposeful, functional, and appealing products that are based on given design criteria. I explore a variety of materials, components, and construction kits | I can state what my product is for and how it will work. I can explain how my product is suitable for its intended user. I use simple design criteria to help develop their ideas. I generate and communicate my ideas through simple drawings and labels (and including methods mentioned in Y1) I design purposeful, functional, and appealing products that are based on agreed design criteria. I am beginning to use ICT to support the design process | I generate realistic ideas, focused on the needs of the user. I can indicate the design features of my products that will appeal to intended users. I am beginning to develop my own design criteria and use these to inform my ideas. I share and clarify ideas through discussion. I can describe the purpose of my products and explain how | I can gather information about the needs and wants of particular individuals and groups. I can use annotated sketches and cross-sectional drawings to develop and communicate my ideas. I can make design decisions that take account of the availability of resources. I can develop my own design criteria and use these to inform my ideas | I can identify the needs, wants, preferences and values of particular individuals and groups. I can use annotated sketches and cross-sectional drawings and exploded diagrams to develop and communicate my ideas. I generate innovative ideas, drawing on research | I can conduct research, using surveys, interviews, questionnaires, and webbased resources. I can develop a simple design specification to guide my thinking. I can make design decisions, taking account of constraints such as time, resources and cost individuals and groups. |
| Make | Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park. Explore different materials freely, in order to develop their ideas about how to use them and what to make. Use a range of small tools, including scissors, paintbrushes and cutlery. Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. | I can select from and use a range of materials and components (including construction materials and kits, textiles, food ingredients and mechanical components) I follow procedures for safety and hygiene. I can cut and shape materials and | I can select from a range of tools and equipment, explaining their choices. I can measure, mark out, cut, and shape materials and components. I can assemble, join, and combine materials and components. I can use finishing techniques, including those from art and design | I select tools and equipment suitable for the task. I can order the main stages of making. I can measure, mark out, cut, and shape materials and components with some accuracy. I can use a wider range of materials and components than KS1, including mechanical components. I can explain my choice of tools and equipment in relation to the skills and techniques I will be using. I can assemble, join, and combine materials and | I can explain my choice of materials and components according to functional properties and aesthetic qualities. I can apply a range of finishing techniques, including those from art and design, with some accuracy | appropriate lists of tools, equipment, and | I can formulate step-by step plans as a guide to making. I can use a wider range of materials and components than KS1, including electrical components and textiles. I can apply a range of finishing techniques, including those from art and design, with some accuracy |

| | Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor. | I can assemble, join, and combine materials and components | | components with some accuracy. I can apply a range of finishing techniques, including those from art and design, with some accuracy | | | |
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| Evaluate | Explore, use and refine a variety of artistic effects to express their ideas and feelings. Return to and build on their previous learning, refining ideas and developing their ability to represent them. | I can talk about my design ideas and what I am making. I can suggest how their products could be improved. I am able to explore; what products are, who products are for, what products are for, how products work, what materials products are made from | I can make simple judgements about their products and ideas against design criteria. I am able to explore; what they like and dislike about products, where products might be used | I can identify the strengths and areas for development in my ideas and products I refer to the design criteria as I design and make. I use my design criteria to evaluate my completed products. I can identify the strengths and areas for development in my ideas and products. I can investigate and analyse how well products have been designed and made. I can investigate and analyse what methods of construction have been used. I can investigate and analyse how well products work and how well they achieve their purpose. I know about inventors, designers, engineers, chefs, and manufacturers who have developed ground-breaking products | products were designed and made. I can investigate and analyse why materials have been chosen. I can investigate and analyse whether products can be recycled or reused. I know about inventors, designers, engineers, chefs, and manufacturers who have developed ground-breaking products | I can critically evaluate the quality of the design, manufacture, and fitness for purpose of my products as I design and make. I can evaluate my ideas and products against my original design specification. I can investigate and analyse how sustainable the materials in products are. I can investigate and analyse what impact products have beyond their intended purpose. I know about inventors, designers, engineers, chefs, and manufacturers who have developed ground-breaking products | I can investigate and analyse how much products cost to make. I can investigate and analyse how innovative products are. I know about inventors, designers, engineers, chefs, and manufacturers who have developed ground-breaking products |
| Cooking and nutrition | Manage their own basic hygiene and understand the importance of healthy food choices. Use a range of small tools including cutlery | I know that all food comes from plants or animals. I know that food has to be farmed, grown elsewhere (e.g. home) or caught. I know that everyone should eat at least five portions of fruit and vegetables every day. | I can name and sort foods into the five groups in The Eatwell Plate I know that everyone should eat at least five portions of fruit and vegetables every day. I know how to use techniques such as cutting, peeling, and | I 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. I know that seasons may affect the food | I can demonstrate how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading, and baking. I know that a healthy diet is made up from a variety and balance of different food and drink, as | I can demonstrate how recipes can be adapted to change the appearance, taste, | I know that different food and drink contain different substances — nutrients, water, and fibre — that are needed for health |

| | | I can demonstrate how to prepare simple dishes safely and hygienically, without using a heat source | grating. I know that food ingredients should be combined according to their sensory characteristics | available. I can demonstrate how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source | depicted in The Eatwell plate. I know that to be active and healthy, food and drink are needed to provide energy for the body | | |
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| Technical Knowledge | Share their creations, explaining the process they have used. | I know about the simple working characteristics of materials and components. I know about the movement of simple mechanisms such as wheels and axles. I know about the movement of simple mechanisms such as levers and sliders. I know the correct technical vocabulary for the projects they are undertaking | I know how freestanding structures can be made stronger, stiffer, and more stable. I know the correct technical vocabulary for the projects they are undertaking | I know that materials have both functional properties and aesthetic qualities. I know how to make strong, stiff, shell structures. I know how mechanical systems such as levers and linkages or pneumatic systems create movement. I know the correct technical vocabulary for the projects they are undertaking | I know that materials can be combined and mixed to create more useful characteristics. I know how to use learning from science to help design and make products that work. I know that mechanical and electrical systems have an input, process, and output. I know how simple electrical circuits and components can be used to create functional products. I know the correct technical vocabulary for the projects they are undertaking | I know how to reinforce and strengthen a 3D framework. I know that food ingredients can be fresh, pre-cooked and processed. I know that a recipe can be adapted by adding or substituting one or more ingredients. I know how mechanical systems such as cams or pulleys or gears create movement. I know the correct technical vocabulary for the projects they are undertaking | I know how to use learning from mathematics to help design and make products that work. I know that a single fabric shape can be used to make a 3D textile product. I know that a 3D textiles product can be made from a combination of fabric shapes. I know how more complex electrical circuits and components can be used to create functional products. I know how to program a computer to monitor changes in the environment and control their products. I know the correct technical vocabulary for the projects they are undertaking |