

Design Technology Progression Grid



	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Developing, planning and communicating ideas (Design)	<p>Characteristics of Effective Learning: Plan and think ahead about how they will explore or play with objects. Make independent choices. Show goal-directed behaviour. Keep on trying when things are difficult. Know more, so feel confident about coming up with their own ideas. Make more links between those ideas.</p> <p>Expressive Arts and Design: 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.</p>	<p>Think of some ideas of their own. Explain what they want to do. Use pictures and words to plan.</p>	<p>Think of ideas and plan what to do next. Choose the best tools and materials. Give a reason why these are best. Describe their design by using pictures, diagrams, models and words.</p>	<p>Show that their design meets a range of requirements. Put together a step-by-step plan which shows the order and also what equipment and tools they need. Describe their design using an accurately labelled sketch and words. Make plans realistic.</p>	<p>Come up with at least one idea about how to create their product. Take account of the ideas of others when designing. Produce a plan and explain it to others. Suggest some improvements and say what was good and not so good about their original design.</p>	<p>Come up with a range of ideas after they have collected information. Take a user's view into account when designing. Produce a detailed step-by-step plan. Suggest some alternative plans and say what the good points and drawbacks are about each.</p>	<p>Use a range of information to inform their design. Use market research to inform plans. Work within constraints. Follow and refine their plan and if necessary justify their plan to someone else. Consider culture and society in their design.</p>
Working with tools, equipment, materials and components to make quality products (Make)	<p>Characteristics of Effective Learning: Concentrate on achieving something that's important to them. They are increasingly able to control their attention and ignore distractions.</p> <p>Physical Development: Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Suggested tools: pencils for drawing and writing, paintbrushes, scissors, knives, forks and spoons.</p>	<p>Explain what they are making. Talk about the tools they are using.</p>	<p>Join things (materials/components) together in different ways.</p>	<p>Use equipment and tools accurately.</p>	<p>Talk about if their finished product is going to be good quality. Be conscious of the need to produce something that will be liked by others. Show a good level of expertise when using a range of tools and equipment.</p>	<p>Explain why their finished product is going to be of good quality. Explain how their product will appeal to the audience. Use a range of tools and equipment expertly.</p>	<p>Use tools and materials precisely. Change the way they are working if needed.</p>
Evaluating processes and products (Evaluate)	<p>Expressive Arts and Design: Return to and build on their previous learning, refining ideas and developing their ability to represent them.</p>	<p>Describe how something works. Talk about their own work and things that other people have done.</p>	<p>Talk about what went well with their work. Talk about what they would want to improve if they did it again.</p>	<p>Make changes to improve their designs.</p>	<p>Think of how they will check if their design is successful. Begin to explain how they can improve their original design. Evaluate their product, thinking of both appearance and the way it works.</p>	<p>Check whether anything could be improved. Evaluate appearance and function against the original criteria.</p>	<p>Test and evaluate their final product Is it fit for purpose? What would improve it? Would different resources have improved their product? Would they need more or different information to make it even better?</p>
Cooking and Nutrition	<p>Know and talk about the different factors that support their overall health and wellbeing: • regular physical activity • healthy eating • toothbrushing • sensible amounts of 'screen time' • having a good sleep routine • being a safe pedestrian.</p>	<p>Know about healthy eating and varied diet and understand how fruit and vegetables are part of The Eatwell Plate. Know how to use appropriate equipment and utensils to prepare and combine food (cut food safely). Know about a range of fruit and vegetables appropriate for their product, and where they come from. Know and use relevant technical and sensory vocabulary appropriately. (Describe the texture of foods.) Wash their hands and make sure that surfaces are clean.</p>	<p>Know about healthy eating and understand what is meant by The Eatwell Plate. Know how to use appropriate equipment and utensils to prepare and combine food. Know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught. Know and use relevant technical and sensory vocabulary appropriately. (Describe the properties of the ingredients they are using.) Explain what it means to be hygienic. Be hygienic in the kitchen.</p>	<p>Know about healthy eating and varied diet and understand how fruit and vegetables are part of The Eatwell Plate. Know how to use appropriate equipment and utensils safely to prepare and combine food. (Describe how their combined ingredients come together.) Know about a range of fruit and vegetables appropriate for their product, and where they come from. Know and use relevant technical and sensory vocabulary appropriately. Choose the right ingredients for a product. Make sure that their product looks attractive.</p>	<p>Know about healthy eating and understand what is meant by The Eatwell Plate. Know how to use appropriate equipment and utensils to prepare and combine food. Know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught. Know and use relevant technical and sensory vocabulary appropriately. Know what to do to be hygienic and safe. Think about what they can do to present their product in an interesting way.</p>	<p>Know and understand about food hygiene, nutrition, healthy eating and a varied diet. Understand what is meant by The Eatwell Plate. Know how to use utensils and equipment including heat sources to prepare and cook food. Understand about seasonality in relation to food products and the source of different food products. Know and use relevant technical and sensory vocabulary. Describe what they do to be both hygienic and safe. Present their product well.</p>	<p>Know and understand about food hygiene, nutrition, healthy eating and a varied diet. Understand The Eatwell Plate. Know how to use utensils and equipment including heat sources to prepare and cook food. Understand about seasonality in relation to food products and the source of different food products. Know and use relevant technical and sensory vocabulary. Explain how their product should be stored with reasons.</p>

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Textiles	<p>Expressive Arts and Design: 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.</p>		<p>Understand how simple 3-D textile products are made, using a template to create two identical shapes. Measure textiles. Cut textiles. Join textiles together to make something. Explain why they chose a certain textile.</p>		<p>Know how to strengthen, stiffen and reinforce existing fabrics. Understand how to securely join two pieces of fabric together. Understand the need for patterns and seam allowances. Know and use technical vocabulary relevant to the project. Choose textiles both for their appearance and qualities</p>	<p>Think about what the user would want when choosing a textile product. Think about how to make their product strong and fit for purpose. Devise a template / make up a prototype · Use a range of joining techniques · Think about how their product could be sold. Consider ways to improve their product further.</p>	
Mechanisms	<p>Physical Development: Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Suggested tools: pencils for drawing and writing, paintbrushes, scissors, knives, forks and spoons.</p>	<p>Sliders and Levers. Explore and use sliders and levers. Understand that different mechanisms produce different types of movement. Make a product which moves. Cut materials using scissors. Describe the materials using different words. Say why they have chosen moving parts.</p>	<p>Wheels and Axles. Explore and use wheels, axles and axle holders. Distinguish between fixed and freely moving axles. Join materials together as part of a moving product. Add some design to their product.</p>	<p>Levers and Linkages. Understand and use lever and linkage mechanisms. Distinguish between fixed and loose pivots. Alter their product after checking. Try out new and different ideas confidently.</p>	<p>Electrical Systems. Know how to construct a simple series electrical circuit in science, using bulbs, switches and buzzers. Understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs and buzzers. Apply their understanding of computing to program and control their products.</p>	<p>Pulleys or Gears. Understand that mechanical and electrical systems have an input, process and an output. Understand how gears and pulleys can be used to speed up, slow down or change the direction of movement. Refine their product after testing it. Incorporate hydraulics and pneumatics.</p>	<p>Electrical Systems. Think of ways in which adding a circuit would improve their product. Understand and use different kinds of circuits/ electrical systems in their products. Apply their understanding of computing to program, monitor and control their products.</p>
Structures	<p>Expressive Arts and Design: 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. Physical Development: Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Suggested tools: pencils for drawing and writing, paintbrushes, scissors, knives, forks and spoons.</p>	<p>Free-standing Structures. Talk with others about how they want to construct their product. Select appropriate resources and tools for their building projects. Make simple plans before making objects, e.g. drawings, arranging pieces of construction before building. Make a structure/model using different materials. Know how to make freestanding structures stronger, stiffer and more stable. Work tidily.</p>		<p>Shell Structures. Develop and use knowledge of how to construct strong, stiff shell structures Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes. Use the most appropriate materials. Work accurately to make cuts and holes. Join materials. Use finishing techniques.</p>			<p>Frame Structures. Have a basic understanding of what structures are and how they can be made stronger, stiffer and more stable. Understand how to strengthen, stiffen and reinforce 3-D frameworks. Ensure measurements are accurate enough to ensure that everything is precise Ensure that their product is strong and fit for purpose Refine and improve their product. Persevere through different stages of the making process.</p>