

Design and Technology Skills Progression

Aspects of learning for EYFS planning are taken from 2020 Development Matters and are prerequisite skills for art and design within the national curriculum. The table below outlines the relevant statements taken from the Early Learning Goals in the EYFS statutory framework and the Development Matters age ranges for Three and Four Year-Olds and Reception to match the programme of study for art and design.

Areas of Learning	3 and 4 Year Olds Pupils will know how to:	Reception Pupils will know how to:	ELG Pupils will know how to:
Physical Development	<ul style="list-style-type: none"> • Use large-muscle movements to wave flags and streamers, paint and make marks. • Choose the right resources to carry out their own plan. • Use one-handed tools and equipment, for example, making snips in paper with scissors. • Use a comfortable grip with good control when holding pens and pencils. 	<ul style="list-style-type: none"> • Develop their small motor skills so that they can use a range of tools competently, safely and confidently. • Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor. • Develop overall body-strength, balance, coordination and agility. 	<ul style="list-style-type: none"> • Hold a pencil effectively in preparation for fluent writing- using the tripod grip in almost all cases. • Use a range of small tools, including scissors, paintbrushes and cutlery. • Begin to show accuracy and care when drawing.
Expressive Arts & Design	<ul style="list-style-type: none"> • Explore different materials freely, in order to develop their ideas about how to use them and what to make. • Develop their own ideas and then decide which materials to use to express them. • Join different materials and explore different textures. • Create closed shapes with continuous lines, and begin to use these shapes to represent objects. • Draw with increasing complexity and detail, such as representing a face with a circle and including details. • Use drawing to represent ideas like movement or loud noises. • Show different emotions in their drawings and paintings, like happiness, sadness, fear, etc. • Explore colour and colour mixing. 	<ul style="list-style-type: none"> • 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. • Create collaboratively, sharing ideas, resources and skills. 	<ul style="list-style-type: none"> • 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.

Progression of Skills

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Pupils know how to:							
Design	<ul style="list-style-type: none"> -Create collaboratively, sharing ideas, resources and skills 	<ul style="list-style-type: none"> -Generate ideas using their knowledge of existing products. -Design products that have a purpose and are aimed at an intended user. -Understand and follow simple design criteria. 	<ul style="list-style-type: none"> -Explain how their products will look and work through talking and simple annotated drawings. -Use materials and components considering their function and aesthetics. -Use information technology to communicate their ideas e.g Computer software to help explain an idea 	<ul style="list-style-type: none"> -Explore different initial ideas before coming up with a final design. -Use annotated sketches and cross-sectional drawings to show particular parts of their products work. -Develop and follow simple design criteria. -Use CAD to develop an understanding of 3D nets 	<ul style="list-style-type: none"> -Generate ideas using their knowledge existing products. -Plan and test ideas using templates and mock ups. -Use annotated sketches and simple exploded diagrams to explain how particular parts of their products work -Place the main stages of making in a systematic order 	<ul style="list-style-type: none"> -Generate a range of design ideas and clearly communicate final designs -Use exploded diagrams to show how parts will fit together. -Test ideas out through using prototypes. -Design products that have a clear purpose and indicate the design features of their products that will appeal to the intended user. 	<ul style="list-style-type: none"> -Develop design criteria to inform the design of innovative, functional and appealing products that are fit for purpose and aimed at a specific user. -Identify the design features of their products that will appeal to intended customers. -Use CAD to develop and communicate ideas -Use annotated sketches, cross-sectional drawings and exploded diagrams to communicate their ideas

Make	<ul style="list-style-type: none"> -Use a range of small tools, including scissors, paintbrushes and cutlery. 	<ul style="list-style-type: none"> -Measure and mark out with support -Cut and shape materials with some accuracy -Use hand tools and kitchen equipment safely and appropriately and how to follow hygiene procedures -Cut and peel ingredients 	<ul style="list-style-type: none"> -Cut, shape and join fabric to make a simple product -Use a basic running stitch to join materials -Use a range of materials and components according to their functional properties including textiles and food ingredients -Assemble, join and combine materials, components or ingredients. -Use simple finishing techniques to improve the appearance of their product, such as adding simple decorations. -Measure and weigh ingredients using measuring cups 	<ul style="list-style-type: none"> -Use a range of tools and equipment safely, appropriately and accurately and know basic hygiene procedures -Use a wider range of materials and components, including construction materials and kits, textiles and mechanical and electrical components. -Assemble, join and combine material and components with some degree of accuracy. -Measure ingredients using measuring jugs 	<ul style="list-style-type: none"> -Select from a range of tools and equipment, explaining their choices. -Select from a range of materials and components according to their functional properties and aesthetic qualities Cut and shape materials with some degree of accuracy -Measure, make a seam allowance, pin, cut, shape and join fabric with precision to make a more complex product. -Measure and weigh ingredients using scales -Follow a recipe with adult support 	<ul style="list-style-type: none"> -Measure and mark out to the nearest cm and millimetre -Select from a wide range of tools and equipment including those to cut wood explaining their choices. -Select from a range of materials and components according to their functional properties and aesthetic qualities -Cut, shape, score and assemble materials with precision and accuracy -Measure and weigh ingredients to the nearest gram and millilitre -Follow a recipe 	<ul style="list-style-type: none"> -Independently plan by suggesting what to do next -Create step-by-step plans as a guide to making -Use a range of tools and equipment safely and appropriately and know hygiene procedures including storing food -Use a broad range of materials and components, including construction materials, textiles, and mechanical components -Join textiles using a greater variety of stitches, such as whip stitch and blanket stitch -Refine the finish using techniques to improve the appearance of their product, such as sanding -Adapt a recipe to change the taste
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Evaluate	<p>-Share their creations, explaining the process they have used</p>	<p>-Explore and evaluate existing products mainly through discussions -Explain positives and things to improve for existing products -Talk about their design ideas and what they are making. -Start to identify strengths and possible changes they might make to refine their existing design</p>	<p>-Explore and evaluate existing products through discussions, comparisons and simple written evaluations -Explore what materials/ingredients products are made from -Evaluate their products and ideas against their simple design criteria</p>	<p>-Explore and evaluate existing products, explaining the purpose of the product and whether it is designed well to meet the intended purpose -Explore what materials/ingredients products are made from and suggest reasons for this -Evaluate their product against their original design criteria</p>	<p>-Evaluate their ideas and products against the original design criteria, making suggestions for improvements</p>	<p>-Evaluate how developments, in design helped shape the world e.g how pulleys are used in wells and gym equipment & how linkages are used in cherry pickers and umbrellas -Evaluate their ideas and products against the original design criteria making changes as necessary</p>	<p>-Consider their design criteria as they make progress and are willing to alter their plans/ recipes sometimes considering the views of others if this helps them to improve their product</p>
Technical Skills	<p>-Return to and build on their previous learning, refining ideas and developing their ability to represent them.</p>	<p>-Build simple structures, exploring how they can be made stronger, stiffer and more stable -Create products using mechanisms, such as levers and sliders</p>	<p>-Use simple electrical circuits with support to create functional products e.g a lighthouse with a bulb</p>	<p>-Select materials considering the functional properties and aesthetic qualities -Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. -Use mechanical and electrical systems to power a vehicle</p>	<p>-Use mechanical systems such as levers to create movement in their products.</p>	<p>-Apply their understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products -Use mechanical systems, such as pulleys, linkages and hinges, to create movement in their products</p>	<p>-Use mechanical systems, such as cams, to create movement in their products</p>