

Ryhope Infant School Academy Progression of Design Technology Skills

Area of Study	Nursery/Reception (40 - 60 months – ELG)	Year 1	Year 2
Design			
Pupils should be taught to:		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.	
Contexts, uses and purposes	Constructs with a purpose in mind, using a variety of resources. Children use what they have learnt about media and materials in original ways, thinking about uses and purposes.	To think about what they are designing and who they are designing it for. Explore and choose materials, use templates and mock ups. E.g. moving picture/lighthouse	To think about and explain the purpose of the design and the intended user. Explore and choose a variety of materials, independently, and explain their choices. Create and use templates and mock ups.
Ideas	Listens and responds to ideas. Manipulates materials to achieve a planned effect. Interacts with age appropriate software. Children develop their own ideas through selecting and using materials and working on processes that interest them. Through their explorations they find out and make decisions about how media and materials can be combined and changed.	Generate their own ideas for design, using existing designs as a starting point or as inspiration. Generate their own ideas through talking, drawing and ICT.	Generate their own ideas by drawing on their own experiences and from reading. Continue to generate ideas through talking, drawing, ICT and understanding how to draw on existing ideas to support and improve their own.

Make			
Pupils should be taught to:		<p>Select from and use a range of tools and equipment to perform practical tasks [e.g. cutting, shaping, joining and finishing]</p> <p>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristic.</p>	
Planning	<p>Uses simple tools and techniques competently and appropriately.</p> <p>Selects appropriate resources and adapts work where necessary.</p> <p>Selects tools and techniques needed to shape, assemble and join materials they are using.</p>	<p>Use a range of tools and equipment and begin to select their own, independently.</p> <p>Investigate a range of materials and components and begin to understand their characteristics.</p>	<p>Select from a range of tools and equipment, explaining their choices.</p> <p>Select from and use a range of materials and components according to their characteristics.</p>
Practical skills and techniques	<p>Shows understanding of the need for safety when tackling new challenges, and considers and manages some risks</p> <p>Shows understanding of how to transport and store equipment safely.</p> <p>Practises some appropriate safety measures without direct supervision</p> <p>Uses simple tools to effect changes to materials.</p> <p>Handles tools, objects, construction and malleable materials safely and with increasing control.</p> <p>Shows a preference for a dominant hand.</p>	<p>Learn and follow safety procedures when using tools and equipment.</p> <p>Use templates.</p> <p>Begin to cut out and shape materials and components.</p> <p>Begin to assemble and join materials and components using temporary and permanent fixings – tape, glue, staples.</p> <p>Begin to use finishing techniques from art and design (to improve aesthetics of a design).</p>	<p>Follow safety procedures.</p> <p>Use and make own templates.</p> <p>Measure, mark out, cut out and shape materials and components.</p> <p>Assemble, join and combining materials and components.</p> <p>Use simple fixing materials, both temporary and permanent.</p> <p>Use finishing techniques, including those from art and design.</p>

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Evaluate			
Pupils should be taught to:		Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria.	
Own ideas and products	Uses talk to organise ideas. Manipulates materials to achieve a planned effect.	Talk about their design ideas and what they are making. Follow their design plan and make simple comparisons against the finished product. Begin to think about how their products could be improved. Complete a simple evaluation of their finished product.	Talk about their design ideas, what they are making and why? (linking back to context, uses and purpose). Make simple judgments about their products and ideas against design criteria. Suggest improvements, making reference to their original design, materials, components etc Evaluating products and components used.
Existing products	Continuous investigation through role play areas.	Begin to investigate what products are, who they are for, how they are made and what materials are used?	Continue to investigate what products are, who they are for, how they are made and what materials are used? Begin to use this information to inform planning and evaluation.

Technical Knowledge			
Pupils should be taught to:		<p>Build structures, exploring how they can be made stronger, stiffer and more stable.</p> <p>Explore and use mechanisms [e.g. levers, sliders, wheels and axles], in their products.</p>	
Making products work	Continuous investigation through role-play areas and real-life play.	<p>Begin to investigate how simple components work and how materials work.</p> <p>Understand about the movement of simple mechanisms including levers and sliders.</p> <p>Begin to investigate food ingredients according to their sensory characteristics.</p> <p>Begin to recognise technical vocabulary for the projects they are undertaking.</p> <p>Investigate how freestanding structures can be made stronger, stiffer and more stable.</p>	<p>Understand about the simple working characteristics of materials and components.</p> <p>Understand about the movement of simple mechanisms including wheels and axles.</p> <p>Understand that food ingredients should be combined according to their sensory characteristics.</p> <p>Know the technical vocabulary for the projects they are undertaking.</p> <p>Understand how freestanding structures can be made stronger, stiffer and more stable.</p>
Cooking nutrition			
Pupils should be taught to		<p>Use the basic principles of a healthy and varied diet to prepare dishes.</p> <p>Understand where food comes from.</p>	
Where food comes from	Children should have the opportunity to grow a variety of food.	<p>To find out where food comes from, including food grown and produced in the UK.</p> <p>Children should understand food that is grown naturally and food that is manufactured. To support this, children should attempt to grow an edible food in the classroom, school garden etc.</p> <p>Children should understand plant based and animal products.</p>	

Food preparation, cooking and nutrition	<p>Eats a healthy range of foodstuffs and understands need for variety in food.</p> <p>Shows some understanding that good practices with regard to exercise, eating, sleeping and hygiene can contribute to good health.</p>	<p>Use appropriate equipment to weigh and measure ingredients.</p> <p>Prepare simple dishes safely and hygienically, without using a heat source.</p> <p>Use techniques such as cutting.</p> <p>Name and sort foods into the five groups of the 'eat well' plate.</p> <p>Know that everyone should eat at least 5 portions of fruit and vegetables every day.</p>
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