

Subject overview: DT

What does a product designer look like at Mengham Infants? What personal skills and characteristics of learning, are particularly relevant for this subject?

At Mengham Infant school we view design and technology as an inspiring, rigorous and practical subject which allows children to use their creativity and imagination to design and make products that solve real and relevant problems. They will draw on subject knowledge across the curriculum and learn to take risks, becoming resourceful, innovative, enterprising and capable citizens able to access creative and purposeful design based activities. In order to participate in an increasingly technological world, design and technology will develop the necessary creative, technical and practical expertise needed. We recognise that today's society is in need of effective STEM education and the part DT plays in this. They should work in a range of relevant contexts and situations such as the home and school, gardens, woods and playgrounds, the local community, industry and the wider environment. Children will critique, evaluate and test their ideas and products always striving to improve and better the design. We know the importance of learning to cook as a crucial life skill and also the importance of instilling a love of cooking in pupils, knowing that this will open a door to one of the great expressions of human creativity. Children at Mengham Infants will be taught how to cook and how to apply the principles of nutrition and healthy eating. A high quality design and technology education produces product designers who can make an essential contribution to the creativity, culture, wealth and well-being of the nation.

These are the key skills and knowledge that a product designer will develop during each year (not just EYFS/NC objectives):

Year R	Year 1	Year 2
Children will be introduced to real life examples of designers who have influenced real life work linked to the children's projects.	Begin to understand the importance of key events and individuals in design and technology and their impact on our lives today.	Understand how key events and individuals in design and technology have helped shape the world and talk about some examples of their work.
Design <ul style="list-style-type: none"> • Construct with a purpose in mind, using a variety of media and resources. • Use what they have learned about media and materials in original ways. • Think about uses and purposes and representing their ideas, thoughts and feelings imaginatively. 	Design <ul style="list-style-type: none"> • Design purposeful, functional products for themselves and others based on a design criteria. • Generate, develop, model and communicate their ideas through talking, drawing and where appropriate use of ICT. • To begin to demonstrate the knowledge, understanding and skills needed to engage imaginatively in a process of designing 	Design <ul style="list-style-type: none"> • Begin to use their understanding of materials to devise their own design criteria for a project where appropriate. • Design purposeful, functional, appealing products for themselves and others based on a design criteria. • Generate, develop, model and communicate their ideas through talking, drawing, templates and mock ups and where appropriate use of ICT. • To demonstrate the knowledge, understanding and skills needed to engage imaginatively in a process of designing.

<p>Make</p> <ul style="list-style-type: none"> • With support, select and use a range of tools for practical tasks. • Selects appropriate resources and adapts work where necessary. • Begin to use cutting skills where appropriate. • Begin to use selotape and glue to make simple joins. • Use large scale materials such as pallets and tyres to create structures. • Safely use and explore a variety of materials, tools and techniques, experimenting with colour and design 	<p>Make</p> <ul style="list-style-type: none"> • Select and use a range of tools and equipment for practical tasks e.g. cutting, shaping, joining and finishing. • Select and use a wide range of materials and components including construction material, thinking carefully about their characteristics. • Explore and use levers and sliders in their products. • Use natural resources to create structures. 	<p>Make</p> <ul style="list-style-type: none"> • Select and use a wider range of tools and equipment for practical tasks • Use scissors, craft knives and saws to cut materials depending on their characteristics • Use glue, string, simple stitching, corner supports, simple jinks frames and staples to make joins. • Used wheels and axles in their products. • Select and use a wider range of materials and components including textiles, according to their specific characteristics. • Explain why they have chosen a specific material for their projects. • Build structures that combine a range of materials .
<p>Evaluate</p> <ul style="list-style-type: none"> • Talk about their project, saying what they think worked well and what didn't work well. • Talk about changes that they made to their design and begin to give reasons for these changes. 	<p>Evaluate</p> <ul style="list-style-type: none"> • Investigate and discuss a range of existing products that relate to their project that have been provided for them. • Evaluate their ideas and products against their own design criteria and say what they think has worked well and what didn't work well. • Begin to think about ways to improve their work next time. 	<p>Evaluate</p> <ul style="list-style-type: none"> • Find, investigate and analyse a range of existing products that relate to their project. • Explaining how they can improve the design to make it stronger, stiffer and more stable. • Evaluate their ideas and products against their own design criteria, say what they think has worked well and what didn't work well and what they would change next time. • Consider the views of others to improve their work.
<p>Cooking and nutrition</p> <ul style="list-style-type: none"> • To know how they can make healthy choices in relation to healthy eating and cooking. • Begin to use knives to cut food with support. • Begin to use graters to grate food with support. • Prepare and make simple healthy snacks. 	<p>Cooking and nutrition</p> <ul style="list-style-type: none"> • Prepare and use ingredients in cookery, to create simple dishes, understanding the basic principles of a healthy and varied diet. • Begin to understand the use of a range of kitchen utensils such as whisk, spatula, measuring jug. 	<p>Cooking and nutrition</p> <ul style="list-style-type: none"> • Select and use ingredients in cookery, to prepare a main meal, using the basic principles of a healthy and varied diet. • Confidently use a range of kitchen utensils, including knives and graters.

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| | <ul style="list-style-type: none">• Begin to use knives to cut food independently.• Begin to use graters to grate food independently• Discuss where food comes from. | <ul style="list-style-type: none">• Understand where food comes from and begin to understand the concepts of fair trade and air miles. |
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Subject Leader - What three questions are key to you ensuring you have led your subject so that it has a positive impact on the children ?

Are the strands of DT used across different areas of the curriculum? E.g history, geography, RE, English, maths.....?

Are there a wide range of tools, equipment and materials to enable a creative and purposeful curriculum?

Are there plenty of opportunities to allow children to make healthy choices in relation to food, nutrition and cooking?