



## Design and Technology Intent Statement

**Overall aim:** To engage and inspire children to use their creativity and imagination to design and make products that solve real and relevant problems. Children will combine their broad subject knowledge of mathematics, science, computing and art to create high quality products.



- Wisdom to develop the creative, technical and practical expertise needed to perform everyday tasks confidently.
- Grow confident in this increasingly technological world.
- Grow in appreciation for how design and technology can contribute to the creativity, culture and well-being of our nation.



- Strength to apply a wealth of knowledge and understanding of skills to design and make a product.
- Trust that they can take risks, become resourceful and innovative citizens.
- Believe they can apply the principles of nutrition and learn how to cook.



- Connect with themselves and their peers by learning to critique, evaluate and test their ideas and products and the work of others.
- Explore and celebrate existing products and use this to support their own design process.
- Instil a love for cooking and celebrate this crucial life skill and how they can express themselves through this art.

### Context

**Opportunities in school:** DT Knowledge Rich Projects; meaningful, cross curricular links; memorable experiences. STEM weeks, designing and creating for a purpose.

**Opportunities in the local area:** Links to Jarrow and Hebburn Secondary Schools; Baltic, The Word, Technology Tom, Discovery Museum.

**Opportunities for life in Modern Day Britain:** Broaden a narrow culture base; diverse range of designers and chefs. Children to learn to cook as a crucial life skill in order to feed themselves now and in later life.

### End Points: Design

EYFS	KS1	KS2
Explore, use and refine a variety of artistic effects to express their ideas and feelings. (EAD)	Design purposeful, functional, appealing products for themselves and others based on a design criterion.	Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.
	Generate, develop, model and communicate their ideas through talking, drawing, templates, mock ups and where appropriate information and communication technology	Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer aided design.

**End Points: Make**

EYFS	KS1	KS2
Create collaboratively, sharing ideas, resources and skills. (EAD)	Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].	Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.
	Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics	Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.

**End Points: Evaluate**

EYFS	KS1	KS2
Return to and build on their previous learning, refining ideas and developing their ability to represent them. (EAD)	Explore and evaluate a range of existing products.	Investigate and analyse a range of existing products.
	Evaluate their ideas and products against design criteria.	Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.
		Understand how key events and individuals in design and technology have helped shape the world.

**End Points: Food and Nutrition**

EYFS	KS1	KS2
Know and talk about the different factors that support their overall health and well-being. (PSED)	Use the basic principles of a healthy and varied diet to prepare dishes.	Understand and apply the principles of a healthy and varied diet.
	Understand where food comes from.	Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.
		Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

**End Points: Technical Knowledge**

EYFS	KS1	KS2
	Build structures, exploring how they can be made stronger, stiffer and more stable.	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures
	Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]
		Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
		Apply their understanding of computing to program, monitor and control their products.