

INTENT

Vision Statement

- **At New Scotland Hill we intend to be creative and practical**
- **Motivated through opportunities to problem solve, imagination within a variety of contexts**
- **Develop imaginative solutions**
- **Working independently and in teams**

**Enjoy failure and learn from it. You can never learn from success- James Dyson.
I haven't failed. I have just found 10,000 ways that won't work. – Thomas Edison**

National Curriculum Aims

Purpose of study:

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

The national curriculum for design and technology aims to ensure that all pupils:

- develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- critique, evaluate and test their ideas and products and the work of others
- understand and apply the principles of nutrition and learn how to cook.

IMPLEMENTATION

Design: Children will look at variety of techniques and skills to develop their knowledge needed to help them design their own product.
 Make: Select appropriate materials and techniques to create a product fit for purpose.
 Evaluate: Reflection of their work and describe how fit for purpose their product is.
 Technical Knowledge: Investigate real life examples and use the correct technical terminology to articulate their ideas and communicate their design.
 We have created a comprehensive progression document for staff to follow to best embed and cover every element of the Design and Technology curriculum.

Design	Make	Evaluate	Technical Knowledge	Cooking and Nutrition
Key Stage 1				
<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics 	<ul style="list-style-type: none"> explore and evaluate a range of existing products evaluate their ideas and products against design criteria 	<ul style="list-style-type: none"> Build structures, exploring how they can be made stronger, stiffer and more stable Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. 	<ul style="list-style-type: none"> use the basic principles of a healthy and varied diet to prepare dishes understand where food comes from.

New Scotland Hill Primary School and Nursery – DT CURRICULUM OVERVIEW - DRAFT

	<p>Key Stage 2</p>				
<p>IMPACT</p>	<ul style="list-style-type: none"> • 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 discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design 	<ul style="list-style-type: none"> • 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 wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities 	<ul style="list-style-type: none"> • investigate and analyse a range of existing products • 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 	<ul style="list-style-type: none"> • apply their understanding of how to strengthen, stiffen and reinforce more complex structures • 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. 	<ul style="list-style-type: none"> • understand and apply the principles of a healthy and varied diet • 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.
<ul style="list-style-type: none"> • Children will acquire life skills that can be applied to real world problems. • Children will learn to how to use appropriate technology and tools to deliver their intended outcome. • Children will develop their skills and build a resilience to find creative solutions to a technical problem. • Children will be reflective learners when testing and evaluating their own products. 					