

Intent

At Naunton Park, we place a great emphasis on the importance of Design Technology and recognise its value as an inspiring, practical subject in an increasingly technological world. Using creativity and imagination, pupils can design and make products that solve real and relevant problems within a variety of contexts, such as the home and school, gardens and playgrounds, the local community, leisure, industry and the wider environment. In doing so, they acquire a broad range of subject knowledge and also draw on areas such as mathematics, science, engineering, computing and art. We acknowledge the positive impact creative tasks can have on children's behaviour, relationships and mental health. DT allows for this creative freedom, thus enabling pupils to learn how to take risks and become resourceful, innovative and curious individuals.

The intent of our DT curriculum is to:

- engage, inspire and motivate pupils
- allow children to express their creativity through designing and making
- promote independent thinking, problem solving and resilience
- encourage children to self-evaluate a finished product against its strengths and weaknesses, then suggest ways to improve their work.
- gain skills in collaboration, investigation, construction, designing and evaluation
- equip children with skills that are transferable into future work life
- give children the confidence to experiment, invent and create their own product designs
- build upon and further develop their range of skills through a progressive approach
- gain an understanding of the principles of healthy eating and apply these through cookery tasks

Our EYFS DT curriculum

In Reception, Design Technology skills are woven through the key area of 'Expressive Arts and Design' and play an important role in the children's development. Children are given opportunities to manipulate materials to achieve a planned effect and then construct products with a purpose in mind. Children are encouraged to select tools and techniques of their choice to allow them to shape, assemble and join the materials they are using, in order to achieve a finished product.

By the end of Key Stage 1 our children will learn 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
- 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
- explore and evaluate a range of existing products
- evaluate their ideas and products against design criteria
- 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.

(from National Curriculum)

By the end of Key Stage 2 our children will learn to

- 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
- 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
- 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
- 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.

(from National Curriculum)

Implementation

- Block DT Weeks during the Autumn Term
- DT 'Walk Through' Celebration of the week's achievements
- Use of books/folders/booklets to record the progressive stages
- Visit to the 'Maker Shack' during the Science Festival
- Visits to Waitrose Cookery Studio for Food Technology/Cookery elements
- Gardening Club cookery
- Baking for Harvest Festival

<i>Year Group</i>	<i>Units Week 1</i>	<i>Additional DT Units</i>
<i>Reception</i>	Little Red Hen text – 'Baking Bread'	'Waterproof coats' – investigating waterproof materials and then designing and making a coat for a teddy
<i>Year 1</i>	'Moving Pictures' – making sliders, levers, pivots and wheels to allow different parts of pictures to move.	'Playgrounds' – exploring different types of playground equipment (how they move and what they're made of) and then making models, exploring joining materials together
<i>Year 2</i>	'Healthy Eating Sandwiches' - exploring sandwich fillings and types of bread then designing, making, eating and evaluating their own healthy sandwiches	'Puppets' – designing, creating (sewing) and evaluating felt hand puppets Baking Gingerbread – following a recipe to make, bake and decorate



Year 3	'Moving Monsters' - exploring pneumatic systems, designing, making and evaluating their own monster with moving parts.	'Photo Frames' – exploring materials and components of different frames, then designing, making and evaluating their own frames and sturdy stands.
Year 4	'Moving Storybooks' – explore moving parts in story books then use a variety of tools and techniques to design, create and evaluate their own moving pages.	'Torches' – investigating circuits, metal components and switches then designing, making their own torches with a working bulb and circuit.
Year 5	'Baking Biscuits' – explore different flavours, textures and appearances of different biscuits, then design, make, eat and evaluate their own biscuits	'
Year 6	'Building Bridges' – explore how forces act on bridges, how they are constructed and strengthened and then work as a team to build a strong bridge design using art straws and card	'Slippers' – explore a range of slippers to investigate materials used, different parts and who they are designed for then design slipper patterns and use sewing and decorating skills to design, make and evaluate own slippers.

The teaching of this subject will be adapted as required to enable children with SEND to access this area of the curriculum, in line with their individual needs and through liaison with the school SENDCo.

Impact

Progress and impact can be measured through the following:

- Monitoring of children’s recording in booklets/folders/books
- Reading children’s evaluations of their finished products
- Displays around school
- Observing standards of work during DT Walk Through Celebration
- Observing progression of skills in finished products across the Key Stages
- Children’s ‘voice’ / feedback
- Staff meetings and discussions