Wawne Primary School

Intent, Implementation, Impact statement

Design Technology

Intent

At Wawne Primary, our Design Technology curriculum has firm foundations that begin with fulfilling the requirements of the National Curriculum for Design Technology. Our aim is to provide a broad and balanced curriculum, ensuring the progressive development of knowledge and skills for all children.

Early Years Foundation Stage-Educational Programme

We aim to develop the children's imagination and creativity through a range of cross curricular activities using stories, music, movement and creative activities. Children will learn how to use a range of media and materials to create products of their own. They will learn how to design, plan, make and evaluate in simple terms.
They will describe what they want to make and will be able to talk about what they and their friends have created.

Key stage 1

Aims

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.

Design

- 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

Make

- 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

Evaluate

- Explore and evaluate a range of existing products

- Evaluate their ideas and products against design criteria

Technical knowledge

- 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.

Key Stage 2

Design

- 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

Make

- 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

Evaluate

- 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

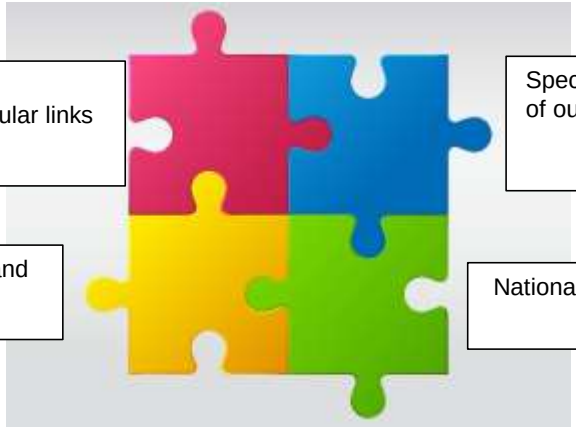
Technical knowledge

- 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

This National Curriculum base forms an important part of our Design journey but other vital aspects influence our choices and learning and these pieces fit together to create a Wawne Primary DT jigsaw.

It allows us to look at what knowledge and skills our children already possess and then create fun, varied,cross curricular, theme based activities that are progressive, interesting, accessible and challenging to children of all ages, ability, gender and culture.

What makes us-us?



This jigsaw ensures that the things we learn and the way we learn them are unique to our school community so that learning is not only informative, but is active, relevant and meaningful with a 'real world' influence and context. Our knowledge rich curriculum has to be balanced with the opportunity for pupils to apply their knowledge creatively which will in turn help them become skilful creators and innovators. A focus area for our children is to develop resilience and problem solving skills both independently and collaboratively when working on individual and group tasks. Our aim is to help them become confident taking risks and help them understand that things are not always successful the first time, that products sometimes need to be altered several times before they work successfully. We want our children to view their design knowledge and skills not in isolation, but to recognise and make links between other curriculum subjects such as Art, Maths, Science and Computing. We want future teaching and learning to be built on previous experiences so that there are opportunities to practise skills and techniques to deepen and solidify their understanding.
We want our children to not just be observers and imitators of design that they see, but be innovative, imaginative creators who make their own choices and create their own unique pieces. To do this, they need to be aware of the planning, implementation and evaluation process- knowing how designers develop and create products. This will allow them to observe and appreciate the world around them and see how design is used in the home, school, leisure, industry, enterprise and in specific occupations. It is important for them to see how products can be created that will have a positive impact on society and that developing good organisational and design skills will help them to become purposeful and valued members of their community. Our children's writing has developed through the use of Pie Corbett's 'Talk for Writing' process which encourages Imitation, Innovation and Independent Application and these elements can also be applied to the design process. We want to explore and utilise the design skills of our families, the local community and businesses.

Implementation

To ensure high standards of teaching and learning in Design Technology, we implement a curriculum that is progressive throughout the whole school. Design Technology is taught weekly or as a block on a two year termly cycle, focusing not only on knowledge and skills stated in the National Curriculum but also cross curricular links to develop context.
Current cohort needs drive all curriculum choices and also local, national and international influences as well as the children's interests to ensure the learning is broad, engaging and balanced. New teaching opportunities take into consideration prior learning and

knowledge and skills are revisited to allow children to practise and deepen their understanding. Cross curriculum links are made with other subjects such as Art, Maths, Science and Computing. Staff use this information to complete termly DT overviews which highlight progressive knowledge, skills and vocabulary for each year group. These are shared in staff meetings so progression can be checked and staff can have discussions about prior learning and cohort needs before planning. Weekly lesson plans are devised that show content, skills, resources, differentiation and assessment. Lessons are planned to create an incremental sequence of learning beginning with a product design brief so children know clearly about what they are going to make and the success criteria that is needed to make it well. The sequence of sessions then allows children to research the product, exploring a range of components and techniques through active exploration, then planning and creating a final product which is then tested, edited and evaluated. Written work, drawings and photos of products are recorded in theme books to show the process followed and products are on display around the school.

At Wawne Primary, we provide a variety of opportunities for design learning to take place inside and outside the classroom. We hold enrichment DT days to develop and showcase specific styles and skills and invite parents to view class exhibitions. Activities for families to work together to create models at home have also been completed. Opportunities to link with speakers and local businesses in person or virtually online are being researched. Design work is displayed across the school in classrooms and shared areas and show the progressions of skills across age groups and a variety of techniques and resources used. Displays are being developed to include links to design in everyday life and job opportunities available.

Impact

Children will enjoy design activities and value its importance. They will use the correct terminology to describe what they are learning, why they are learning it, how they are learning and what the impact has been. They will become creative learners, who use their design knowledge and skills to imitate, then innovate and finally create their own independent design pieces. They understand the process needed to create a product and can explain what they have created and how creativity and uniqueness will be celebrated. Children will become more adept at planning, creating and editing the products they have made and appraising their own and others work. Children will be more willing to take risks, be resourceful, enterprising and capable and see that these are vital skills to become purposeful citizens who contribute to our society.

We measure the impact of our curriculum through the following methods:

- Observation of pupil's work-theme books, DT exhibitions, display.
- Summative assessment of pupil discussions about their learning.
- Teacher assessment on O Track
- Pupil self/peer appraisals
- Images and videos of the children's practical learning. Learning walks
- Pupil interviews
- Theme book scrutinies in staff meetings-check, discuss and compare National curriculum coverage, quality,knowledge and skills progression across the age groups.
- Marking of work/questioning.
- Annual reporting of subject standards