SUBJECT ON A PAGE:

Design & Technology

At Waterside Primary we believe D&T does not just stand alone. but links to key skills across the curriculum. and prepares children for our rapidly changing world.

Intent - We aim to...

- Deliver a purposeful and engaging curriculum which allows children to feel they can contribute ideas to an ever-evolving world of invention.
- Encourage children to become independent, creative problem - solvers, identifying needs and developing ideas for products that are fit for purpose and user.
- Provide children with key knowledge and explicitly teach practical skills and vocabulary so children can create and discuss their work confidently
- Expose children to a range of inventors, designers and inventions so they can reflect on and evaluate past and present technology, its uses and impacts.
- Develop in children an understanding of how environmental issues and societal factors (e.g. cost-effectiveness) impact design.
- Link D&T to other subject areas such as Science, Maths and Computing to strengthen and transfer skills.

Implementation - How do we achieve our aims?

Strong Foundations

Design Technology is an essential part of learning in the Foundation Stage as it is incorporated in everyday learning. The D&T aspects of the children's work relate to the objectives set out in the Early Learning Goals (ELGs). We ensure that that the key foundational knowledge required for our KS1 D&T curriculum is fed into our Early Years environment and learning activities.

A consistent approach

In KS1 & KS2 , the curriculum is taught through 6 key areas of D&T, which are outlined in the Twinkl Planit scheme that we have adapted (See below). Each subject area has been split into a minimum of six different units for coverage of the 2014 National Curriculum throughout the school year. The basic skills of D&T taught in EYFS & KS1 are then enhanced in KS2. In lower KS2, each area of D&T is taught and these are revisited in more depth in upper KS2.

Allocated Time

The D&T curriculum is taught once every other half term in KS1 and KS2, where time is blocked during a week to make D&T a key focus of the timetable.

Using equipment safety

Teachers model how to use tools and equipment safely. These technical skills are then practised by children prior to making their final products. D&T equipment. In EYFS & KS1, teachers discuss safety with children (e.g. cutting carefully with scissors) and in KS2 children actively take part in creating risk assessments.

Strong vocabulary development

Technical language is explored with children across key stages. Repetition of key language ensures that knowledge is retained and words are used by children in discussions. We believe that exposing children to technical language is an entitlement and that it will enhance their vocabulary.

MECHANICAL SYSTEMS	Automata Animals (y5) Moving pictures (Y1) Mechanical posters (Y3)
STRUCTURES	Marbulous structures (Y6) Pirate Paddys Packed Lunch (Y2) Lets go fly a kite (Y4)
ELECTRICAL SYSTEMS	Battery operated lights (y4)

TEXTILES	Our fabric faces (Y1) Fabric bunting (Y2 Juggling balls (Y3) Felt phone cases (Y5)
FOOD	Dips and Dippers (Y1) The Great Bread Bake Off (y4 Sensational salads (Y2 Super seasonal cooking (y5) Edible garden(Y3 Global food (y6)
COMPUTER-AIDED DESIGN	Programming adventures (Y6)

Implementation (continued)

Key Inventors

Key events and individuals that/who have influenced the world of D&T are introduced to the children. These events and individuals are carefully chosen to link with other areas of learning and we ensure that individuals are chosen from a range of countries and ethnic backgrounds to acknowledge that influential designers and inventors are worldwide. We also recognise that women in STEM jobs play a key role in developing ideas and innovations. Therefore we ensure that in an often male-dominated subject, we select influential female designers and inventors to study as part of our D&T curriculum.

Consistent Lesson Structure

In KS1 & KS2 lessons follow the same structure as 'Twinkl Planit scheme', though we make the content more bespoke. Lessons are structured as follows:

Investigate & Evaluate → **Focused Task** → **Planning** → **Making** → **Evaluating**

- Investigate & Evaluate: Exploring key inventions & existing products.
- Focused Task: Carrying out a risk assessment & engaging in a skills-based task.

Purposeful products

Throughout EYFS & KS1 pupils will engage in a variety of creative and practical activities which will introduce them to the basic concept of design criteria and making something that is 'fit for purpose'. In KS2, children develop an understanding of what a design brief is, and design products with a purpose in mind and an intended user.

Design Brief → PRODUCT → USER → PURPOSE

Reading in DT

Reading is at the heart of our curriculum, and in KS2 in particular we provide opportunities for children to read around and research inventions in D&T lessons.

Texts to ....

Cross-curricular links

The learning of D&T is contextualised and links are also made to Science topics where relevant. Links with Maths are created when measuring or exploring shape in particular. Each unit has been written with an emphasis on cross-curricular links so children see how design and technology is integral to the modern world in which they live. This cross-curricular approach to the teaching of D&T ensures that knowledge from other subjects (particularly Science) is further enhanced and skills are transferred.

Critically evaluating

Children in EYFS discuss their work and talk about how they made products. In Ks1 begin to evaluate their own work, and that of others, giving useful advice and feedback. In KS2, children critically evaluate existing products and their own against their design brief. They also consider how sustainable, eco-friendly or cost-effective their products are.

Impact - How will we know we have achieved our aims?

- After receiving our high quality D&T curriculum, children will be ready to make an essential contribution to the creativity, culture, wealth and well-being of the nation.
- Children produce high-quality work that offers a solution to a problem or a contribution to the world of design, and these products are fit for purposes and users.
- Children know more and remember more about D&T and this is demonstrated through the work they produce and in discussion.
- Children critically evaluate the work of other designers and inventors and have a developed understanding of how their work contributed to the wider world.
- Children consider sustainability (e.g. environmentally friendly or cost-effective products) and understand the importance of this.
- Children demonstrate their knowledge of Science (and Maths when appropriate) during D&T lessons.