Design & Technology at Wilbarston

Design & Technology: Curriculum

Design & Technology (DT) plays an important role within the curriculum at Wilbarston and is one of many subjects that help to fulfil our wider trust mission of creating aspirational and knowledge-rich pupils. Pupils have planned opportunities to use their creativity and imagination, to design and make products that solve real and relevant problems within a variety of contexts. The DT Curriculum includes links to designs and designers throughout history, enabling pupils to critically reflect upon and evaluate their own designs. We aim to, wherever possible, link work to other disciplines such as mathematics, science, engineering, computing and art. This gives the learning purpose and relevance to the pupils.

The Wilbarston DT curriculum aims to ensure that all pupils:

- develop technical knowledge and vocabulary in relation to structural design, mechanical and electrical systems and the integration of technology and food production and nutrition
- 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
- develop the collaborative working skills needed for the world of work

At the end of Foundation at Wilbarston

The teaching of DT is practical, playful and inclusive with support and challenge from adults in class sessions, small groups and working with individuals. There is a combination of adult-led, teacher taught sessions as well as a wealth of stimulating continuous provision opportunities when adults scaffold learning through skilful interactions and questioning. At all times, our children are exposed to high quality technical language to support their growing vocabulary. Throughout all of these areas of learning and at the heart of our EYFS are the "Characteristics of Effective Learning".

At the end of Key Stage 1 at Wilbarston

Children have been introduced to the three main strands of DT and are thinking about, designing, making and evaluating their products. Through a variety of creative and practical activities, pupils will have the knowledge, understanding, skills and vocabulary needed to engage in an iterative process of designing and making.

At the end of Key Stage 2 at Wilbarston

Building on the strong foundations of designing, making and evaluating set out in foundation stages, the children will have progressed through a variety of creative and practical activities, building on the knowledge, understanding, skills and vocabulary needed to engage in an iterative process of designing and making. Children will understand how research influences design and how key events and individuals in design and technology have helped shape the world.

Pedagogy

Through a variety of creative and practical activities, we teach the knowledge, understanding and skills needed to engage in an interactive process of designing and making. When designing and making, the school uses a standardised planning format to ensure the pupils are familiar with the design cycle:

- Design – use research and develop design criteria to design for a purpose and communicate their ideas through a range of mediums.
- Make – use a wider range of tools and equipment with accuracy and use a wider range of materials and components according to their qualities.
- Evaluate – evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.

Assessment

We use a multi-faceted approach to assessment within Design Technology.

- Retrieval of skills and practice at the beginning of every lesson.

- Assessment for learning is used within each lesson through skilful use of questioning and live feedback
- Pupil voice to support the evidence that pupils know and remember more over time

Cultural Capital

Enrichment is an essential part of the Design Technology Curriculum which provides pupils with discrete time to focus and deepen their learning, they provide opportunities for new experiences as well as nurturing and developing a thirst for learning.

We use a multi-faceted approach to enrichment within Design Technology:

Career Professional Development

We develop strong subject knowledge amongst all staff which is achieved through; comprehensive middle leadership development, a focus on developing all teachers' subject knowledge and Design Technology pedagogy. All staff benefit from implementing the high-quality planning resources provided by the Trust yet amended to meet the needs of all pupils. Below is a summary of the CPD activities bespoke to Design Technology:

- Skill specific videos to support teachers
- 1-1 meetings with teachers to highlight key concepts of lesson plans
- Bespoke mentoring programme for non specialist class teachers
- Team teach in DT days
- Twilight DT CPD

Design Technology Curriculum Overview:

Reception	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
	Textiles- Book Marks		Structures- Junk modelling		Structures- Boats	

Opportunities and supplemented in provocations within the internal and external Early Years Provision

Year 1/2	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Cycle A	Textiles- Puppets		Structure- Constructing a windmill		Cooking- Nutrition smoothies	
Cycle B	Mechanisms - Fairground wheel		Structures- Baby bears chairs		Mechanisms- making a moving monsters	

Year 3/4	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Cycle A	Cooking and Nutrition – Eating seasonally		Digital world- Wearable Technology		Structures- Constructing a castle	
Cycle B	Mechanical systems -Making a sling cast car		Structure- Pavilions		Electrical systems - Torches	

Year 5/6	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Cycle A	Electrical systems- Doodlers		Mechanical systems- Making a pop up box		Cooking and nutrition- Making a recipe	
Cycle B	Structure- Playgrounds		Textiles- Waistcoats		Digital world - Navigating the world	

- Stand Alone units enhanced via our Wow days timetable.
- Forest Schools enhancements as Wilbarston as per plan