



Achieving Success Together

Curriculum Overview: Design & Technology



School Vision:

Our Teachers... are creative, engaging and adventurous, offering an excellent curriculum that challenges and inspires to ensure every child is **ACHIEVING.**

Our DT curriculum provides opportunities for pupils to become creative, expressive designers who are confident in exploring and using a wide range of tools and materials. We ensure that pupils are given ample opportunities to develop their design and making skills and in turn, design and create products, to a high standard. These skills are developed by working individually as well as collaboratively with other pupils in a variety of contexts. Making connections with the local community with trips to the local art studio and working with local crafts persons, provide further inspiration and opportunities for high-quality learning.

Children are encouraged to explore their full potential, challenge themselves and demonstrate their abilities. Our DT curriculum ensures every child has the opportunity to shine; regardless of their abilities in other subject areas.

Our Children... learn resilience and are happy, confident and independent learners who thrive on celebrating their **SUCCESS.**

In DT, skills are developed by working individually as well as collaboratively with others in a variety of contexts. Children learn skills that build upon each other through the Key Stages thus ensuring that every child's resilience and confidence is nurtured and able to flourish.

Through our many enrichment activities during the year, children partake in a variety of community competitions and activities. All achievements, no matter how big or small, are celebrated in special assemblies. We have an annual whole school Arts Week as well as annual exhibitions where the children's creative masterpieces are proudly displayed. Our fantastic DT displays around school, further showcase each class's achievements and successes.

Our School...is a safe and nurturing environment, where everyone works **TOGETHER to role model our core values of respect, trust and honesty.**

DT lessons nurture an environment where children feel safe to explore, experiment and celebrate their mistakes as a learning process as well as their successes. Children learn about working safely both independently and collaboratively as well as using protective measures to ensure everyone is kept safe at all times.

Intent:

Our intent at **Browick Road Primary and Nursery School** is to ensure every child completes their primary education with the knowledge and expertise to thrive in a world where technology is ever changing. Children will ultimately become resourceful, innovative and imaginative citizens capable of creating and developing their own ideas and designs that solve real and relevant problems in a range of contexts. They will be reflective learners, who can critique and evaluate designs, having the confidence to adapt in order to meet a design specification.

Through this curriculum, children will complete age and stage appropriate projects, built on prior learning, where they design and make: structures; mechanisms and mechanical systems; electrical systems including programming; textiles products and food products.

We follow the cumulative curriculum established by CUSP and know that the children will develop their disciplinary skills throughout their learning journey. The substantive knowledge of the CUSP curriculum is ambitious, and children will have plenty of opportunities to learn and use a rich suite of design and technology vocabulary across all DT projects.

This overview sets out the framework in which the Design and Technology curriculum will be taught.



Implementation:

<i>Our curriculum and enquiries</i>	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
EYFS - Nursery	<p>Expressive Arts and Design (Creating with Materials) Children safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. Share their creations, explaining the process they have used.</p> <p>Physical Development (Fine Motor Skills) Children handle equipment and tools effectively, including pencil, scissors and paintbrushes.</p>					
EYFS - Reception						
YEAR 1	<p>Mechanisms Sliders and levers How can you make a picture move? How can sliders create simple mechanisms?</p>	<p>Structures Freestanding structures How can you stop a tower from toppling?</p>	<p>Food and Nutrition Exploring food senses How does food affect your senses? Why can colourful food be healthier?</p>	<p>Understanding Materials Selecting materials Can you build with bread?</p>	<p>Textiles Joining techniques How can two squares of fabric keep you warm?</p>	<p>Food and Nutrition Vitamins in food Why are vegetables the best?</p>
YEAR 2	<p>Textiles Exploring shape using a template How can you repurpose an item of clothing?</p>	<p>Food and Nutrition Nutrients and the body What does healthy mean?</p>	<p>Mechanisms Axles and wheels Are bigger wheels always better?</p>	<p>Understanding Materials Manipulating materials How can you waterproof a hat?</p>	<p>Food and Nutrition Processed food How healthy is your food?</p>	<p>Structures Developing strength in structures How strong is a piece of paper?</p>
YEAR 3	<p>Textiles Stiffening and strengthening fabric How can you make a box out of cloth?</p>	<p>Food and Nutrition Individual diets What do we mean by a balanced diet</p>	<p>Mechanisms Levers and linkages-mechanical advantage How can you do a lot of work with little effort?</p>	<p>Food and Nutrition Food as medicine How does food affect your body and mind?</p>	<p>Systems How things are powered How are things powered?</p>	<p>Structures Spanning gaps What makes a bridge strong?</p>

Implementation:

<i>Our curriculum and enquiries</i>	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
YEAR 4	Food and Nutrition Ultra-processed food What's really in your food?	Mechanisms Hinges How many ways are there to open a door?	Textiles Fixings and fastenings How do you keep a tea towel from slipping off a hook?	Structures Designing structures using a frame to make them stronger and sturdier Which shapes will give a structure stability?	Electrical systems Switches and circuits revisited How useful are switches?	Food and Nutrition Benefits of fresh food Is cheap food always worse for you?
YEAR 5	Food and Nutrition Food choices Why are our diets so different?	Systems Using technology to design and control How can we keep ourselves safe on the road?	Textiles Durability of fabric Which fabric is ideal for creating a functional and hardwearing lunch bag?	Food and Nutrition Cultural influences on diet What can you learn from different cultures' diets?	Structures Developing structures that are fit for purpose How are frames strengthened, reinforced and made rigid?	Mechanisms Pulleys and gears-transferring rotational force How can you lift a car onto a roof?
YEAR 6	Food and Nutrition Multicultural influences on food Can street food save us?	Mechanisms Pulleys and gears-rotary and linear movement How do pulleys and gears let you see the world?	Food and Nutrition Food and mood Does food affect the way you feel?	Structures Designing structures revisited- combining skills and knowledge How strong is a piece of spaghetti?	Electrical systems Complex switches and circuits Can switches perform more than one function?	Textiles Sustainable materials How can you reduce, recycle and repurpose?
SRB: Speech, Language and Communication Needs	Year A: Mechanisms Sliders and levers How can you make a picture move? How can sliders create simple mechanisms? Year B: Structures Freestanding structures How can you stop a tower from toppling?		Year A: Food and Nutrition Exploring food senses How does food affect your senses? Why can colourful food be healthier? Year B: Food and Nutrition Vitamins in food Why are vegetables the best?		Year A: Understanding materials Selecting materials Can you build with bread? Year B: Textiles Joining techniques How can two squares of fabric keep you warm?	

Impact:

Our DT curriculum ultimately enables children to become confident, independent designers who can use a variety of skills to produce high quality products. Pupil voice is a vital monitoring tool which shows the impact our curriculum is having. It is varied, practical and inclusive and children talk passionately about DT lessons, recalling their enjoyment and success.

Teachers use formative assessment, which is based on the learning of key substantive knowledge and disciplinary skills, to measure the impact of the curriculum and adapt and extend learning as appropriate. Units are taught in increasing depth throughout their Browick journey, which is evident from the work produced in their books and the products created. Additionally, we use questioning and discussion to gauge children's understanding in order to develop it further.

Technology is constantly changing, but we are confident that the learning obtained through our high-quality DT lessons will equip our pupils with the expertise to thrive.