Subject on a Page

Design & Technology

At St. Cuthbert's we want our pupils to become resourceful, innovative, enterprising and capable citizens

Intent: What do we want for all our pupils?

We want our pupils to be able to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. In learning about cooking and nutrition each year, we want our pupils to be able to develop knowledge and skills about food preparation and learn about different cuisines and cultures. High-quality cooking and nutrition makes an essential contribution to health, culture, wealth and well-being. Our children will:

- be engaged and excited by design and technology
- benefit from a carefully sequenced curriculum with strong links to KS3
- develop an understanding of the impact of D&T on daily life and the wider world
- learn about cuisine and design from different times, places & cultures
- embed concepts of designing, making, evaluating and problem solving

Implementation: How we sequence & teach our D&T curriculum

Curriculum Design

Through our well sequenced curriculum, pupils develop the creative and practical expertise needed to perform everyday tasks confidently. We teach design and technology every term and each class has three units of work a year as summarised below: one food & nutrition unit, one design and make 'workshop' unit and one skills focused 'stretch' unit that staff can choose to teach as a block of work or embed in STEAM opportunities with cross curricular links throughout the academic year. We teach children to build a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users. Our curriculum has been designed with primary and secondary colleagues across BCCET so that we can ensure pupils progress from EYFS through KS1 & 2 and leave us ready to excel at KS3.

D&T	Design & Make	Cooking & Nutrition	Stretch (Skills Unit)
EYFS	Rockets	Fruit kebabs; pancakes; stir fry	cutting straight & curved lines joining - tape, glue
Year 1	Moving Pictures	Fruit Smoothies	Marking Out & Cutting
Year 2	Patchwork	Sandwiches	Nets & Structures
Year 3	Branding and Packaging	Fruit Crumble	Smart Wearables
Year 4	Creative Shoes	Pasta	Apprentice Electricians
Year 5	Fairground Rides	Pretzels	Sewing
Year 6	Felt Phone Cases	Curry	Structures

Teaching & Learning

This academic year (2023-4) we are embedding our BCCET scheme of work. In EYFS, pupils have regular access to construction and design activities through continuous provision as well as being taught specific units as detailed above. Teaching & learning enables pupils to develop motor skills to use equipment confidently and safely, to experiment with a range of resource, to express themselves creatively, to create and work collaboratively & to return to & build on their learning, explaining their ideas.
In KS1 and KS2, pupils further develop their knowledge and skills with units of work that are planned carefully and sequentially so that knowledge and skills are returned to and built upon. During their time at St Cuthbert's, pupils are given opportunities to work with mechanisms, structures, textiles, electronics and food technology.
Our lessons are inclusive - every child is able to achieve no matter their ability or individual needs. We adapt learning to the needs of our pupils through questioning, modelling and, where necessary, breaking down tasks and providing scaffolds or guides.
Staff are supported in delivering Design & Technology as non-specialists with high quality resources, training & support materials provided by specialist colleagues within BCCET.

Lesson Design

Lesson structure will vary, depending on the focus. However these threshold concepts for Design & Technology will be present across a unit of work:

Design
* identify user needs
* identify design problems
* develop specifications
* generate creative ideas
* communicate design ideas in different ways

Make
* select & use specialist tools, techniques, processes & equipment
* select & use a range of materials, components & ingredients

Evaluate
* analyse the work of past and present professionals
* investigate new & emerging technologies
* test, evaluate & refine ideas
* evaluate the impact of DT on society & the environment

Technical Knowledge
* understand & use materials based on properties
* understand mechanical systems
* understand electrical & electronic systems
* apply computing to embed intelligence into products

Food Tech Knowledge
* understand the principles of a healthy and varied diet
* understand seasonality & food sources

Impact: How do we assess our D&T curriculum?

Assessment in D&T takes account of all aspects of pupils' learning and achievement. This includes not only what pupils make but how they make it, what skills they acquire and what they know about the tools and materials they use. Each unit of work has end points and expectations based on the threshold concepts above. Teachers consider both the quality of the products pupils make, their creativity and the skills they exhibit as they use tools, materials and processes. They then make a broad overall judgement of attainment in that unit of work as follows:

EXCEEDING EXPECTATIONS: Pupils who are exceeding the expectations will typically be providing evidence of achievement which consistently extends their learning beyond the confines of the task. They show deeper understanding and mastery than their peer group.
MEETING EXPECTATIONS: Pupils who are meeting expectations in full will typically show consistent evidence of achievement which shows they understand and confidently approach tasks and topics. They are working at an appropriate level for their peer group.
NOT YET MEETING EXPECTATIONS: Pupils not meeting expectations may be showing weaknesses or less confidence in some areas or may have needed adaptive teaching or scaffolds to achieve.

The D&T coordinator monitors the teaching and evidence of D&T through the Bishop Chadwick CET 5 strand approach.