ST CLARE
Catholic Multi Academy Trust

Sacred Heart School
A Catholic Voluntary Academy

Design and Technology Curriculum

Through Design and Technology, we aim to equip our children with the skills necessary to actively contribute to the creativity, culture, wealth and well-being of themselves and their community. We aim to provide inspiring and practical opportunities for our children to take risks and so become more resourceful, innovative, enterprising and capable. We aim to develop a critical understanding of the impact of design and technology on daily life and the wider world, and to foster in our children an appreciation of the aesthetics and beauty of their own work and the work of others.

INTENT		IMPLEMENTATION		IMPACT	
Alignment to National Curriculum	As a school, we follow the D&T Association Projects on a Page Scheme of Work. The scheme of work supports our teachers in delivering lessons which help to raise standards and allow all pupils to achieve their full potential. In line with the National Curriculum, we aim to provide opportunities for our children 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. We aim for them to acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Through the evaluation of past and present design and technology, we aim to develop a critical understanding of how high-quality design and technology makes an essential contribution to the creativity, culture, wealth and well-being of the nation.	Pedagogical Approaches	The pedagogical approaches to the teaching of computing are closely aligned to the approaches and principles of teaching in other subject areas, with the key elements being: • Deliberate and intentional retrieval of previous knowledge to build on previous learning • Regular checkpoints and formative assessments to tailor lessons to the needs of pupils • Positive relationships that create the conditions conducive to effective learning • High levels of subject knowledge	Approach to Assessment	We understand that learning happens over time rather than in a single lesson. As a result of our carefully designed and planned curriculum, pupils develop detailed knowledge and skills across the curriculum and, as a result, achieve well. Assessment is done formatively during lessons, and at the end of each lesson teachers will assess the children's current level of skills. Degree of mastery of these skills will be recorded on the assessment spreadsheet and used to inform teacher judgment on a termly basis. Task design is intentionally open for children to demonstrate their level of depth. Impact can be measured by teachers using recall strategies.
End Points	Substantive knowledge represents the technical content and vocabulary that is taught in each year group – in planning, this knowledge is presented as specific 'learning outcomes' – the content we want the children to know and remember.	Teachers' Expert Knowledge	Teachers are given regular opportunities to access CPD. The subject leader provides regular updates to staff. The culture of the school promotes openness and honesty in relation to proactively seeking support; this may be reflected in PDM content, and discussions between colleagues.	Performance Data	There is no published data for design and technology at primary school. The school tracks foundation subjects broadly to ensure that pupils are working within the curriculum expectations for their year group. This is reported to parents within the end of year report.
Sequencing	Procedural knowledge represents the skills of a designer. This knowledge is vertically integrated so that the children revisit and deepen their knowledge and understanding in each year group as they progress through school. In planning, this knowledge is presented as our broad 'learning aims'. For example, the children are taught how to analyse existing designs and products. This is taught in every year group from year one to year six. As the children move through school, they are presented with an increasing range of designs and products and are taught how to analyse them in increasingly complex ways.	Promoting Discussion and Understanding	In all lessons, discussion is integral to deepen thinking and promote understanding of the key concepts. The core knowledge and vocabulary are the entry point and we aim to connect this knowledge. Pupils are given regular opportunities to explore and discuss questions at an age-appropriate level. Teachers use their strong knowledge of the progression in the curriculum to ask questions that lead children to develop the skills we intend to promote.	Pupils' Work	Children's work will be used as a way of securing and showing learning and not simply a record of activities done in class. Children should be able to refer back through their project books, to support themselves with new learning and retrieve key elements of previous learning. Evidence will be recorded in a variety of forms.

Alignment with EYFS	Within provision, children have access to a range of media and materials and, through both child and adult directed play, are supported to use these to plan, design, make and evaluate. Small tools are available to support this process. Children are given opportunities and experiences to enable them to meet the expected level of development.	Knowing More and Remembering More	Our Design and technology curriculum is built upon high levels of repetition to ensure that our children can do more and remember more as they progress through school. The two strands of Procedural knowledge and Disciplinary knowledge are revisited and developed in every class from year one to year six. This repetition ensures that our children reach the end of Key Stage Two with the ability to apply the skills and conceptual frameworks of designers with high levels of independence.	Talking to Pupils	The subject leader will dedicate time regularly to the scrutiny of work, discussion with teachers, enhancing subject knowledge, and discussion with pupils. Pupils will have the opportunity to talk about their work, their enjoyment and understanding of the lessons, and how much they can recall, and their responses will be used to inform an evaluation of the quality of teaching and learning.
Local Context	In selecting the specific content, we ensure that the heritage of our children is highlighted and celebrated. As a result of our work on developing an anti-racist curriculum, deliberate choices are made about aspects of design and the range of designers studied so that our curriculum is representative of, and sensitive to, the community that we serve.	Teacher Assessment	Teachers assess formatively in each lesson. Children will have opportunities to evaluate and recognise their own success and teachers will carry out formative assessment for learning using checkpoints. Task design allows children to demonstrate their progress. Teachers endeavour to carry out live feedback in line with research about which forms of marking and feedback have the most impact.		

In our Design and technology curriculum, disciplinary knowledge is shaped by a human centered design process:*

- Empathy and Optimism: Understanding people's lives and identifying problems from their perspective. Knowing that even if we don't know the answer, that it's out there and we can find it
- Exploration: Understanding that we always start from the place of not knowing, and that a firm foundation of knowledge is the best place from which to tackle a design challenge
- Iteration: Understanding that by continually developing, refining and improving our work, we put ourselves in a place where we'll have more ideas, try a variety of approaches, unlock our creativity and arrive more quickly at successful solutions
- Making (and learning from failure): Understanding that by making, we convey ideas, share them, and learn how to make them better

* Taken and adapted from 'The Field Guide to Human-Centered Design' By IDEO.org – 'The philosophy of design and the mindsets that set us apart' 2015