Design and Technology at St Margaret's
Intent, Implementation & Impact

Everyone is valued. Everyone is motivated. Everyone achieves.

Intent

At our school we believe Design and Technology is a crucial subject area that directly assists our pupils in shaping the future developments in their rapidly changing world.

Our learning reflects the ideology of the National Curriculum for Design and Technology which aims to be an enriching, inspiring and practical subject. Through creativity, exploration and innovation our pupils design and make products that solve real and relevant problems within a variety of contexts. Considering their own and others' needs, they acquire a broad range of subject knowledge and skills whilst drawing on other disciplines such as mathematics, science, computing and art. Our pupils are challenged to be innovative thinkers and risk takers, designing to the specific requirements of a user whilst exploring the full potential of materials and allowing for their own expressive elements.

In line with The National Curriculum, we aim to develop:

- Creative designers who independently make products that solve real problems
- Designers who acquire a broad range of knowledge and skills
- Innovative risk takers and thinkers who are challenged and push boundaries
- Opportunities to explore materials to become inventive problem solvers
- Both independent and collaborative work on a range of scales
- Makers who are confident with handling materials, tools and can use a range of techniques and are curious to explore the full potential of materials
- Creators who produce quality products whilst developing their own expressive elements
- Independent evaluators who can adapt and improve upon their ideas

Implementation

We ensure that Design and Technology skills and knowledge are fully taught and practised through a range of elements which will be taught throughout their learning journey. These elements are: mechanisms, textiles, food technology, structures and electrical systems. It is intended that each Year group will teach three specific elements, one per term which should lead to each element being addressed at least twice during the Key Stage.

Our knowledge and skills are progressive and our learning journey uses the following structure: plan/design, make and test/evaluate.

Our curriculum allows pupils to build upon their prior knowledge and skills whilst providing opportunities to apply them to a new context.

Four key documents are used to deliver our curriculum aims for Design & Technology:

a) Our Design and Technology progression map shows the key knowledge and skills that our children should acquire each year, with a clear sequence of learning that builds year on year, across Key Stage 2

b) A long-term overview of coverage of the specific Design and Technology elements and how they link with other year group topics where appropriate.

c)Long term and short-term planning helps us deliver a progressive, well sequenced learning journey that ensures they teach ambitiously to achieve quality outcomes whilst ensuring our pupils knowledge and skills in Design and Technology are richer. We ensure that planning revisits and consolidates, building on prior knowledge whilst introducing new learning so our pupils know more, remember more and achieve more.

d) Our 'Key Expectations' document outlines the key elements that will be found in our Design and Technology lessons.

Using Design and technology knowledge and word banks, teachers model and ensure that pupils are introduced to and apply with confidence the correct vocabulary related to different elements of D&T techniques, materials and tools.

D&T recording books are used as an intrinsic part of the learning journey, allowing pupils to collect information, plan and design ideas and processes, produce flow and labelled diagrams, recipes, create prototypes and evaluate their own and the work of others.

Through the evaluation process our pupils develop a deeper understanding of design, learning how to improve and adapt work so that they achieve quality products that are fit for purpose.

We provide opportunities to participate in workshops, make visits and work with guests to gain first-hand experiences of the work of designers, inventors and food specialists, allowing pupils to view, handle, taste and create work linked with a variety of contexts and provide intrinsic motivation to become designers of the future.

Our Design and Technology delivers an ambitious, rich and creative learning journey that is inclusive and accessible for all our learners so they all are all able to fulfil their potential. We have well-resourced areas within school that provide a range of materials and tools to allow for the delivery of a comprehensive D&T curriculum, reflecting all our learners' needs are considered and valued.

Health and Safety considerations are paramount to staff when teaching Design and Technology, especially when using tools or exploring techniques, therefore rigorous risk assessments are put into place although additional risk assessments may also be carried out as and when required. Our pupils are taught to demonstrate responsible behaviour and use good practice as demonstrated by the teacher so that they carry out techniques confidently, handle tools and materials safely and effectively.

Each class has an Art, Design and Technology Ambassador who assists in lessons and with new initiatives. They attend termly meetings to give feedback from classes, discuss their learning and experiences and provide a pupil voice.
We have additional enrichment opportunities provided throughout the year such as Parent Workshops and we offer a wide range of opportunities to learn and develop in after school clubs. These are popular and include a variety of Design, Technology and Crafting activities that children may not have the opportunity to normally explore.
In addition, our wall displays showcase the high-quality outcomes produced by our children and offer inspiration to other budding designers.

Impact

Through the teaching of Design and Technology at our school, we intend to inspire and motivate our pupils to become future designers and also reflect on key figures and designers who have shaped and influenced the world we live in today, encouraging our pupils to have an impact on their own environment whilst contributing ideas that will help develop and benefit the wider world. They will understand and value the impact of D&T on both our heritage and our contemporary life, how we need to take into account factors such as sustainability, cost, ethics and lifestyle choices.

Using a range of materials, processes and techniques to work both independently or as part of a team, they will look at existing designs to analyse and assess its effectiveness and then will be challenged to consider ways of redesigning and reconstructing it to improve its overall success. They will be encouraged to think critically and become the problem solvers of the future.

With our effective combination of skills, knowledge and vocabulary our pupils can achieve real success. They **value** their own and others work, feel enriched and **motivated** to learn and are inspired with an intrinsic curiosity to create and **achieve**.

We measure, assess and monitor the impact of the curriculum through the following:

- Pupil self-evaluation and peer evaluation
- Monitoring of pupil voice to check pupils have retained knowledge/skills
- Children should have acquired key vocabulary and concepts/knowledge
- Formative assessment used to diagnose and address learning gaps
- End of block formative assessments
- Assessment/Outcomes – Attainment against expected outcomes during the year and at the end of each year
- Assessment/Outcomes – Progress made from individual starting points
- Analysis of assessment, diagnosing knowledge and learning gaps
- Monitoring – of books and outcomes to check curriculum delivery, quality learning and pupil understanding
- Monitoring – Learning walks to check learning is delivered effectively
- Monitoring – subject leads reflect and analyse effectiveness of curriculum teaching and learning
- Monitoring – subject leads check that the curriculum meets the needs of all pupils through quality teaching, with tailored support and intervention where appropriate
- Reflective staff feedback and joint staff sessions inform CPD to maintain and enhance teacher expertise

The vast majority of children reach end of year or end of key stage expectations.