

Design and Technology at St Monica's School



Intent

Design and Technology (DT) is a subject where children have the opportunity to develop their skills of problem-solving by understanding how materials, food, structures, mechanisms and electrical controls work. It is a subject that offers children the chance to work collaboratively. They gain the knowledge and skills to research, design, make and evaluate their products. It helps children understand how the world has changed and that products we use every day have been designed and manufactured to meet their intended purpose. DT will inspire children to be innovative and give them the necessary skills to design and create their own products. DT will help children gain the skills and knowledge they need to excel in an evolving world.

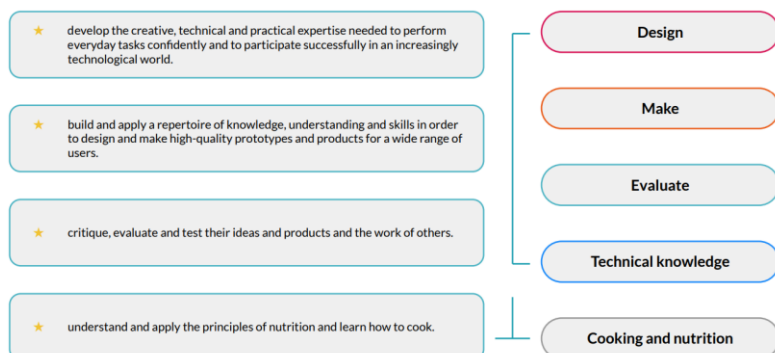
Implementation

During EYFS at St Monica's School

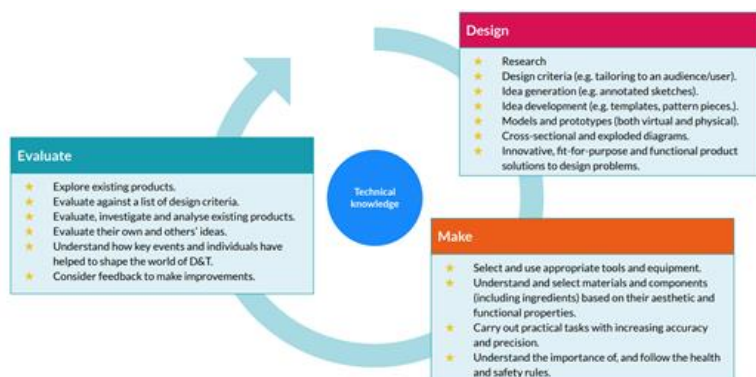
In EYFS, children are taught to recognise that a range of technology is used in places such as home and schools. They will learn to select and use technology for a particular purpose and represent their own ideas, thoughts and feelings. They will be able to safely use and explore a variety of materials, and tools and techniques, to experiment with colour, design, texture, form and function.

During Key Stage 1 at St Monica's School

Through creative and practical activities, children will be taught the knowledge, understanding and skills needed to engage in a process of designing and making. Units of work follow the cycle of design, make, evaluate, technical knowledge, cooking and nutrition. Children will be taught to make structures, use textiles and create healthy food.



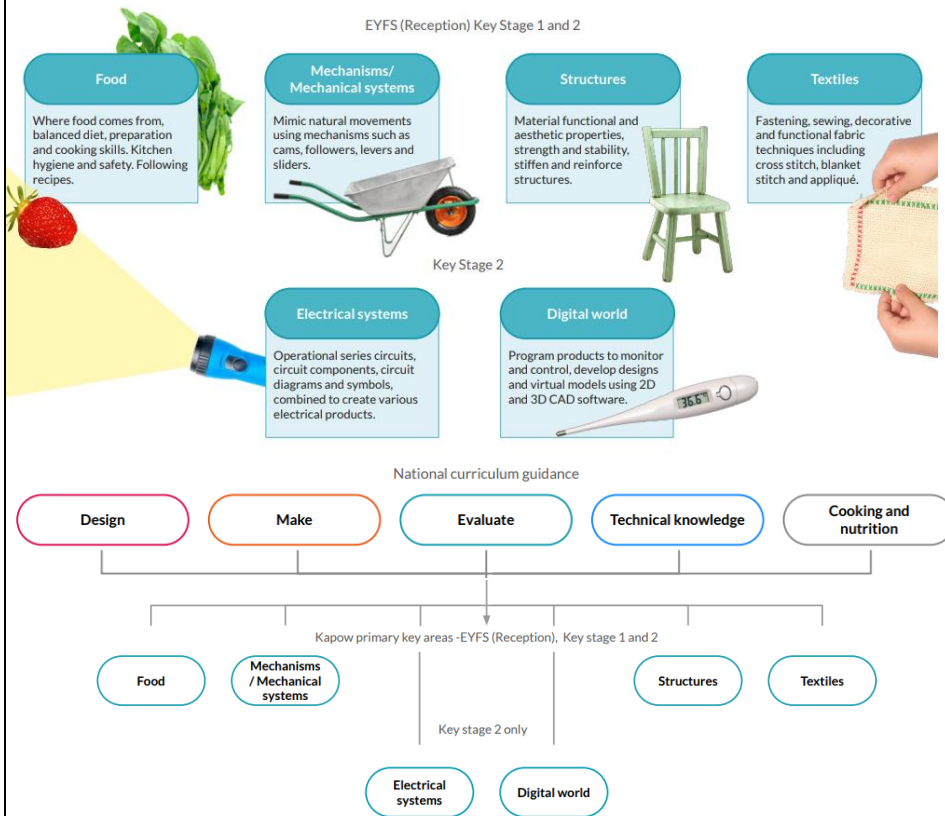
The Design and Technology National Curriculum outline the three main stages of the design process: design, make and evaluate. Each unit of work follows these stages, to form a full project. Each stage of the design process is underpinned by technical knowledge which encompasses the contextual, historical and technical understanding, required for each strand.



Cooking and nutrition has a separate section in the DT National Curriculum, with additional focus on specific principles, skills and techniques in food, including where food comes from, diet and seasonality. Food units still follow the design process summarised above. E.g.: By tasking the children to develop recipes for a specific set of requirements - design criteria - and to suggest methods of packaging the food product including the nutritional information.

During Key Stage 2 at St Monica's School

In Key Stage, children will build on the skills taught in KS1 using the same cycle of design, make and evaluate, technical knowledge, cooking and nutrition. Units of work will deepen children's knowledge of structures, textile design, healthy cooking and food origin, and develop their skills in mechanisms and electrical systems to create movement. The six key areas are revisited throughout KS2, with electrical systems and digital world beginning in KS2:



Some key areas appear less frequently than others, for example textiles, and this is deliberate. The national curriculum statements below show that working with textiles is only a small element of the 'make' strand and many of the making techniques covered in our textiles units are also covered with a range of materials in other units, such as the use of templates, modelling, measuring and marking out, cutting, shaping and joining.

Planning

- The school's curriculum map shows the units to be covered each term.
- We use Kapow medium term plans for each unit of work.
- Plans are adapted for the needs of the class. Kapow provide 'adaptive teaching' for lessons to support pupils needing extra support and those working at greater depth.
- Lessons are planned to encourage children to research, design, make and evaluate their products.
- Skills will be explicitly taught and opportunities will be planned for children to apply them independently.

Teaching

- Opportunities to learn and develop new vocabulary and skills are provided using flexible groupings during lessons: ability and mixed ability groups, paired work, guided and independent work and whole class work.
- A range of skills are used to explore how products and designs are improved.
- Relevant vocabulary is explicitly taught and used in discussion.
- Units of work are taught over a half term.

Marking and feedback

Work should be marked according to the school marking policy by using:

- Peer and self-assessment
- Oral feedback
- Written feedback

Impact

Design and Technology enables children and young people to actively contribute to the creativity, culture, wealth and well-being of themselves, their community and their nation. It teaches how to take risks and so become more resourceful, innovative, enterprising and capable. Pupils develop a critical understanding of the impact of design and technology on daily life and the wider world.

Assessment

- Assessment for learning is used within each lesson to establish if skills have been understood and applied.
- Evaluation of end product is carried out against the design brief.

EYFS:

- All staff to make observations regarding the children's development in this subject.

Resources

- Cookery resources are stored in the sunshine room cupboards.
- DT tools are kept in the science cupboard.
- Teachers are encouraged to add resources based on feedback from the children and the tools they have selected.

Monitoring

Monitoring will be undertaken by Phase Leader and SLT during the school year. This will include:

- learning walks during DT lessons.
- scrutiny of work (sketch books/photos).
- discussions with the children about what they have learnt.
- regular planning checks.