

Design & Technology at Milton Road Primary School

Intent

We want our children to be happy today, fulfilled in the future and able to make their world a brighter place.

Our Vision

At Milton Road Primary School, we seek to ensure that design and technology enthuses and stimulates children to take part in the development of our rapidly changing world. We believe that the subject encourages children to become autonomous and creative problem-solvers, both as individuals and as part of a team. The iterative design process is fundamental. This encourages children to identify real and relevant problems, critically evaluate existing products and then take risks and innovate when designing and creating solutions to the problems. As part of the iterative process, time should be built in to reflect, evaluate and improve on prototypes using design criteria throughout to support this process. Opportunities must be provided for children to evaluate key events and individuals who have helped shape the world, showing the real impact of design and technology on the wider environment. This will help to inspire children to become the next generation of informed consumers and potential innovators.

In addition, design and technology offers opportunities for children to:

- Explore values about and attitudes to the made world and how we live and work in it
- Design and technology prepares pupils to participate in an ever changing technological world by becoming discriminating, informed users and innovators of products.
- They combine their understanding of relevant and past design and technology with practical skills to design , make and evaluate their own products.
- Develop an understanding of technological processes, products, their manufacture and contribution to society.
- Understand and apply the principles of nutrition and learn how to cook.

Implementation: How we plan for and teach DT

For planning, we have used the Projects on a Page scheme and made adaptations to ensure cross curricular links where possible. Our DT curriculum is based on the six DT principles. These are in place in teachers' planning so that children's learning is genuinely design and technological in nature. They are consistent with the new National Curriculum requirements and should be applied whenever children are designing and making products:

- User – Pupils should have a clear idea of who they are designing and making products for, considering their needs, wants, values, interests and preferences. The intended users could be themselves or others, an imaginary or story-based character, a client, a consumer or a specific target audience.
- Purpose – Pupils should be able to clearly communicate the purpose of the products they are designing and making. Each product they create should be designed to perform one or more defined tasks. Pupils' products should be evaluated through use.
- Functionality – Pupils should design and make products that work/function effectively in order to fulfil users' needs, wants and purposes. In D&T, it is insufficient for children to design and make products which are purely aesthetic.
- Design Decisions – Pupils need opportunities to make their own design decisions. Making design decisions allows pupils to demonstrate their creative, technical and practical expertise, and use learning from other subjects. When making design decisions pupils decide on the form their product will take, how their product will work, what task or tasks it will perform and who the product will be for.
- Innovation – When designing and making, pupils need some scope to be original with their thinking. Projects that encourage innovation lead to a range of design ideas and products being developed and are characterised by engaging open-ended starting points for learning.
- Authenticity – children should design and make products that are believable, real and meaningful to themselves i.e. not replicas or reproductions or models which do not provide opportunities for children to make design decisions with clear users and purposes in mind.

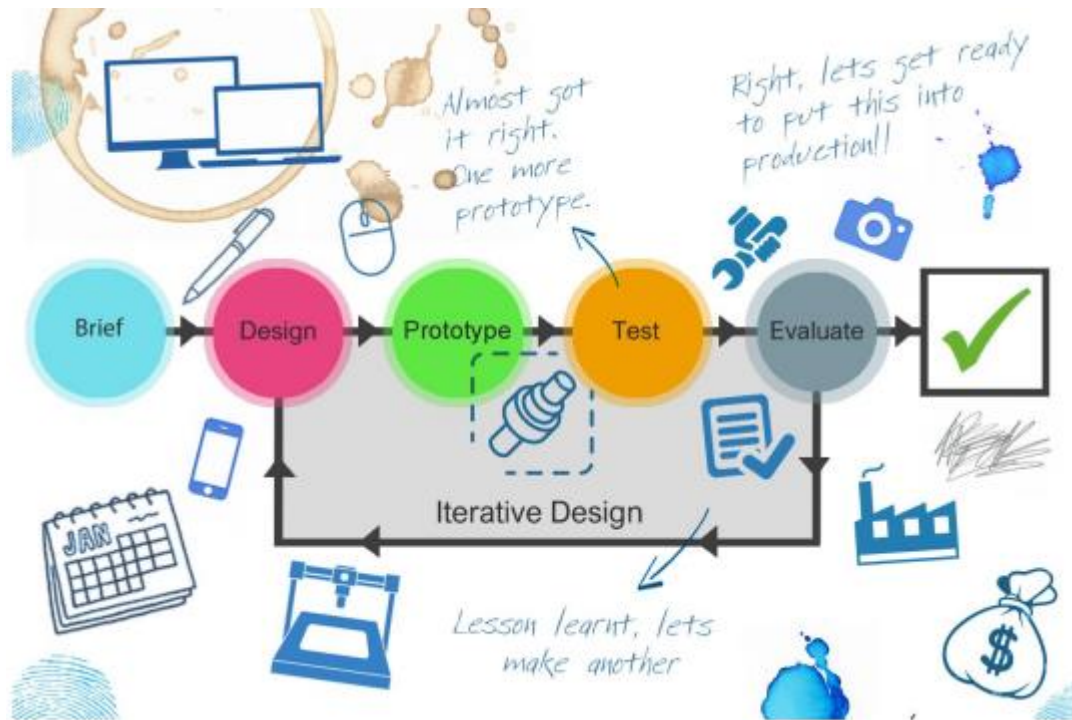
In addition:

- Pupils will experience a sequenced and varied curriculum using a wide range of materials and processes, making cross curricular links whenever possible.
- Pupils will have access to relevant and varied resources and be able to make independent informed choices.
- Using relevant professionals to assist pupils in their understanding of the Design and Technology.
- In Key Stage 1 and 2 Design and Technology is taught through the teaching of well-planned lessons using 'Projects on a page' scheme from the DT Association which aligns with the National Curriculum and other programmes of studies that the teaching staff may choose.
- Every class carries out three Design and Technology projects per year, one of which must be a food based project, which will develop their cooking skills and enhance their knowledge and understanding of healthy eating. In Key Stage 2 children are given the opportunity to look at key events and individuals in Design and Technology that have helped shape the world.

What do Design Technology lessons look like at Milton Road Primary School

Design Technology lessons will follow a similar structure across school:

- Children are provided with the title so the project along with the brief.
- Investigative and Evaluative Activities (IEAs) – learn about existing products and D&T in the wider world.
- Focussed Tasks (FTs) – taught technical knowledge, designing skills and making skills.
- Design, Make and Evaluate Assignment (DMEA) – create functional products with users and purposes in mind.



Impact: How we evaluate learning in DT

As a result of a well-structured and planned curriculum, pupils will understand Design and Technology as a process of plan, make and evaluate and they will understand, and be able to discuss, the relevance to their everyday lives.

At Milton Road Primary School, we assess children into 3 groups: exceeding expectations, meeting expectations or developing expectations. Teachers assess children at the end of each unit, according to the National Curriculum and the skills covered in the unit.

The children are encouraged at the end of each unit to evaluate their own and others' work, suggesting steps for improvement. They also have opportunities to evaluate their own and others' work in class, as part of a whole school display.

From Year 1 children will be recording each unit of DT within their DT books.

This book will follow the children through the school/until it is full. They will be able to refer back to previous DT units to retrieve/revisit information to support knowledge and understanding as they progress through structures, mechanisms, textiles and food. KS2 will also have electrical systems and control.

Health and safety

SAFETY

A safe working environment and ways of working need to be encouraged from the earliest stage and safe practices should be understood by voluntary helpers.

All areas must be under the direct vision of the teacher and there should be enough space for each child to work comfortably.

Teachers should be aware of any physical limitations which a pupil may suffer (e.g. height, eyesight or hearing) and make suitable arrangements.

WORKING WITH FOOD

Cooking utensils and work areas should be kept meticulously clean. Children should learn simple personal hygiene and food preparation rules.

TOOLS

Tools that present a safety hazard such as a glue gun or craft knife need to be secured away from general tools.

Children should be trained to use tools safely from an early age.