DT at Old Park

Design and technology is led by our curriculum lead and our design and technology support teacher.

Why Do We Teach Design Technology?

'Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art.' (National Curriculum, 2014)

We believe that a well rounded Design and Technology curriculum will allow children to develop a range of skills that can be applied to a broad range of contexts. We have carefully designed our Design and Technology curriculum so that children are given opportunities to develop and advance their skills throughout their time at Old Park.

Furthermore, Design and Technology enables children to become resilient members of society, who strive to think critically and creatively, in a plethora of circumstances. They learn to take risks, innovating and communicating new ideas derived from learning to design and make functional products for particular purposes and users. Where possible, children are motivated and inspired by projects that are linked to other disciplines such as history, geography, science and maths.

It is ensured that:

- Activities involve investigating and evaluating existing products.
- Designing and making activities in which children make something for a purpose.
- Tasks are focused, allowing children to develop knowledge and skills.

How Do We Teach DT?

To ensure high standards of teaching and learning in design and technology, lessons are planned around the TASC problem solving wheel. Design and technology is taught termly, focusing on knowledge and skills stated in the National Curriculum.

When designing and making, the children are taught to:

Gather and organise - children consider what they already know about the task and are given the opportunity to research products independently, predominantly using the internet. Opportunities are also given to explore existing products such as: comparing hats for different purposes; comparing the taste and appearance of different breads and playing games that use an electrical circuit.

Identify - this step enables children to think about the purpose of their project, they make decisions about a target audience, create questionnaires to be completed by their target audience, analysing the information and deciding what steps they will need to take in order to create their product. Children are taught skills such as: embroidery, measuring, cutting and shaping as well as given opportunities to research cooking ingredients and recipes. Guidance on food hygiene and safe use of tools is given.

Generate - based on market research and the purpose of the product, a design brief is created that considers functional properties and aesthetic qualities. Using the brief, children generate ideas, creating detailed, technical sketches, cross-sectional drawings and diagrams. **CAD opportunities? Questionnaires, presentations, design**

Decide - this step enables the children to share their ideas, justifying their designs based on their target audience. Communication is an integral part of the decision stage where children discuss their designs with their target audience and feedback given informing their final decision.

Implement - children select from and use a wide range of tools, equipment, materials, food and mechanical components to create their projects. They will use techniques that use a number of steps to: accurately measure, mark out, cut and shape materials and components; accurately assemble, join and combine material and apply a range of finishing techniques, including those from Art and Design.

Evaluate - Evaluation is a continuous process where the children consider the strengths and areas of development at each stage of the project. Upon completing their product, children will investigate and analyse against the design specification, considering if the product meets the users' needs.

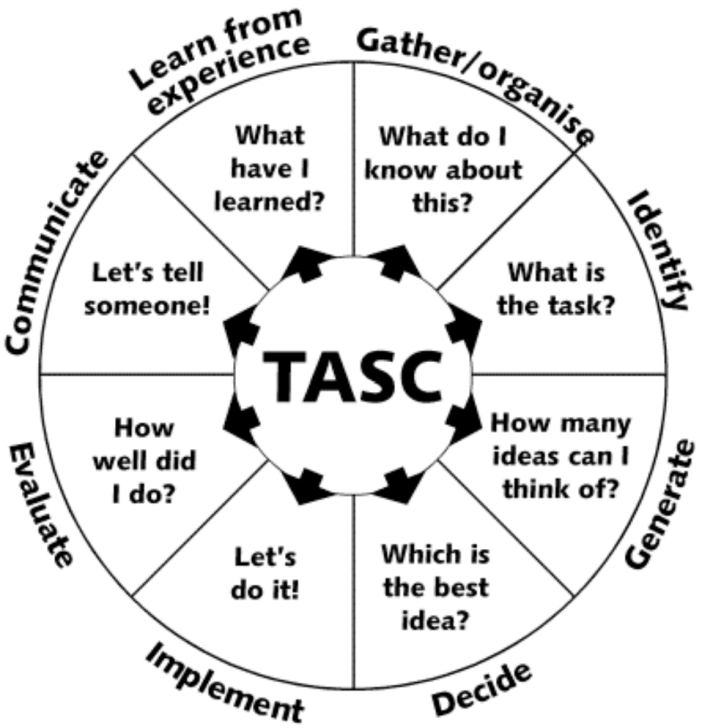
Communicate - this step enables their project to become purposeful by communicating it to someone else. For example: a fashion show at the end of an upcycled clothing project and parents coming into school to taste-test a cooking project.

<u>Does Our DT curriculum influence Our children?</u>

The impact of our curriculum by:

- DT books which are marked against a success criteria
- Photographic evidence
- Book scrutinies
- A skills progression document which shows progression and new learning in each year group

In each design and technology project, children work through an assessment criteria which allows both children and teachers to assess their work against each point, reflecting on how the project meets each objective. Each stage of the project is recorded in DT books where the children then refer back to the TASC problem solving wheel, reflecting on how each step has been achieved (see below).



TASC Wheel

Photographs are taken throughout the ‘identify’ and ‘making’ stage where children are acquiring new skills and then putting these skills into practice. Photos and videos are uploaded of skills and products created by: a greater depth child, a secure child and a working towards child .

Book scrutinies allow progression of skills to be seen within each year group. Strengths and be identified and development points fed back to ensure that each project demonstrates progression. The skills progression document is referred to during book scrutinies to ensure that existing skills are embedded each year and new skills are developed as outlined on the document. Examples of learning journeys demonstrating good practice are then photocopied and shared with staff.