



## Design & Technology: Intent, Implementation & Impact

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### Curriculum Intent

The 2014 National Curriculum for Design & Technology aims to ensure that all children:

- Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- Build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- Critique, evaluate and test their ideas and products and the work of others
- Understand and apply the principles of nutrition and learn how to cook

At Maulden Lower School, our design & technology curriculum is constructed to inspire children to think innovatively and inquisitively. We provide varied learning opportunities which aim to develop not only children's technical skill in design & technology; but also, to develop their wider knowledge of product design and their ability to apply vocabulary accurately.

Design & technology is delivered as a discrete subject and, wherever possible, cross curricular links are formed. Design & technology links well with many other subjects, such as art, maths and science and teachers carefully plan these links to ensure they are meaningful.

In their Design & Technology lessons, the children will:

- learn about the designed and made world and how things work
- learn to design and make products for particular purposes and users
- apply knowledge, skills and understanding of materials, components, mechanisms, control systems and structures
- develop their learning across the curriculum and apply their knowledge about the properties of materials to science; the practice of accurate measurement to maths; IT skills and in art and design
- learn to work collaboratively, problem solve, be innovative, creative and develop evaluation skills
- develop their knowledge skills and understanding about cooking and nutrition

### Curriculum Implementation

Our Design and Technology curriculum covers the skills outlined in the EYFS Framework and National Curriculum through broad, challenging, and inspiring units of work. The required coverage is broken down into long term plans, then further divided into medium term plans by teachers. Whilst the EYFS and National Curriculum forms the foundation of our curriculum, we

make sure that children learn additional skills, knowledge and understanding and enhance our curriculum as and when necessary.

A curriculum coverage document maps out when each year group is completing a specific unit of work and reflects how each element of design & technology is covered throughout the year groups.

Progression grids are used to ensure knowledge, skills and vocabulary build year on year. This ensures that by the end of year 4 pupils have a wealth of knowledge and skills to aid in their future studies.

## Early Years

In EYFS children are provided with activities and experiences that allow them to:

- think critically, have and develop their own ideas, make links between ideas, and develop strategies for doing things
- to develop their co-ordination, control, and movement in handling tools, equipment, construction materials and food
- make sense of their physical world through exploration and observation of processes and outcomes
- make healthy choices in relation to food

## Key Stage One

We aim to develop design, creativity and problem solving through purposeful projects in which children can:

- learn and improve technical skills
- develop as individuals and as team members
- understand the design process
- evaluate the effectiveness of their finished product
- gain a clear understanding of where our food comes from
- become aware of important figures in Design & Technology

## Lower Key Stage Two

Within Key stage 2 we build upon previous learning to include:

- a wider range of contexts
- the needs of varying users
- development of design criteria
- key events and individuals that have influenced the world of Design & Technology
- practical application of scientific principles such as forces and electricity

## Assessment

DT learning is recorded in sketchbooks and should typically evidence all three stages (Plan, Make and Evaluate). Due to the practical nature of design and technology, evidence of work undertaken by children can be in the form of teacher's notes or as a photographic record.

Teachers continually assess children's knowledge, understanding and skills in design and technology by making observations of the children working during lessons. The progression grid document is used as a reference for what children should have achieved by the end of each year group following five areas: Planning, Making, Evaluating, Technical knowledge, and vocabulary. This assessment is then used to inform adaptation, support and challenge required by the children.

As part of our assessment for learning process, children will receive both verbal and written feedback to aid progress in the subject. Children are also encouraged to be critical of their own work, highlighting their own next steps.

## Curriculum Impact

By the time children leave Year 4 we aim for children to develop design and problem-solving skills which they can use beyond school and into adulthood. Through the evaluation of past and present design and technology, children will develop a critical understanding of its impact on daily life and the wider world. Children will be able to develop their practical, technical and creative skills to make high-quality models. Children will be able to evaluate, develop and test their own and others ideas and products. Children will understand and apply the principles of nutrition and learn how to follow a recipe.

In order for this to happen, the Design & Technology Subject Co-Ordinator, the Headteacher and the Senior Leadership Team take responsibility for the monitoring of the design & technology curriculum and the standards achieved by the children. The subject co-ordinator will complete monitoring activities throughout the year.

This monitoring takes the form of:

- lesson observations and feedback.
- staff meeting discussions.
- learning walks and pupil voice conversations.
- planning scrutiny followed by support where necessary.
- book scrutiny on a termly basis.
- pupil progress meetings with the head teacher where Sonar Tracker data is analysed and intervention and next steps are put in place for children not making expected progress.
- moderation within the FARM cluster of local schools.
- transition opportunities for our Year 4 pupils, as well as staff, to engage with Alameda Middle School.