

Design and Technology

Intent, Implementation and Impact of Design and Technology

Our Intent

The intention of Design and Technology at the Acorn Federation is to support children in becoming confident, inventive, creative and collaborative designers. Meeting the requirements of the EYFS and National Curriculum, high quality teaching and learning opportunities are planned by teaching staff to enable children to produce functional and innovative products, individually and within a team, aiming for children to achieve the skills and expectations for their year group. Designing, making and evaluating are key areas children will explore in Design and Technology, through which they will develop their problem solving, resilience and perseverance – important life skills which will set them up for their future.

Beginning from their start in the Early Years Foundation Stage (EYFS) until they leave for secondary school, we intend to inspire children to have a love of Design and Technology that will continue throughout their education and future lives. As a practical, hands-on subject, Design and Technology links brilliantly with Mathematics, Science, Computing and Art and Design, providing children the opportunity to apply their knowledge of these subjects to purposeful and imaginative projects. Alongside these exciting projects explored within the classroom.

Our Implementation

In the **Early Years Foundation Stage (EYFS)**, children begin to develop important skills needed to become confident, imaginative and capable designers. Children will:

- Explore different media and materials: they will have the opportunity to explore and construct using a variety of different materials, tools and equipment with an intended purpose.
- Be imaginative: children will explore a range of products, materials and ideas through role play and exciting projects linked to English and Mathematics.
- Make links with 'The World' and 'Technology': children will explore how things work and be encouraged to develop their questioning skills, also building links with Computing.

Within **KS1** and **KS2** each term, children are given the opportunity to explore an area of Design Technology linked to: Food and Nutrition, Mechanisms, Textiles and Materials and Components.

Children will build on existing skills from previous topics and learn new skills through a range of exciting and challenging activities. 'Within each Design and Technology topic, children will participate in:

- **Investigative Activities:** children will explore how existing products work and how they have been made, linked to significant inventors. Exploring existing products supports children in designing functional, innovative products that meet the needs of an identified user.
- **Focused Tasks:** Children will have the opportunity to learn new skills and how to operate tools and equipment safely and accurately.
- **Design Work:** Children will generate their own ideas linked to design briefs and create working drawings to support their making activities. Through design work, they will consider the user, purpose and function of the product they creating.
- **Making Activities:** Children will apply their skills to create an innovative and functional product, adapting their designs when challenges arise. The use of Computer Software (CAD) may also be used to develop components within some projects.
- **Evaluative Activities:** Children will have the opportunity throughout their project to evaluate their own work and the work of others, drawing on new ideas and adapting their working to create the best product they possibly can.



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Cooking and Nutrition

Within EYFS, KS1 and KS2, Children will also participate in at least one topic linked to Cooking and Nutrition each year. Through this topic, children will:

- Understand how to maintain a healthy diet and healthy lifestyle.
- Develop knowledge of where food comes from and how it is made.
- Explore recipes and ingredients, adapting these to allow for creativity.
- Learn key cooking techniques and skills that can be applied to other recipes.
- Create and evaluate a healthy and delicious product.

Inclusion

All Design Technology lessons are designed to be inclusive, accessible and enjoyable for all. Teaching staff will ensure additional support and resources are provided for pupils with SEND or disadvantaged pupils to enable all children to succeed in the subject. These may include:

- Providing specialist/adapted equipment to allow learners to access the task.
- Allowing extra time for learners to practice skills or complete activities linked to the project.
- Additional adult support (in small groups or 1:1) to enable children to access the learning throughout the project.

Children will also explore a diverse range of designers and inventors to promote STEAM subjects as a subject that is representative and accessible to all.

Our Impact

Through Design Technology at The Acorn Federation our children will be:

- **Proud of their work:** Children will enjoy the topics they explore within Design and Technology and produce creative, functional products that they are proud of and which meet the needs of their user.
- **Collaborative and responsive:** Children will work with and alongside others well to design and make functional products, understanding the role of listening, evaluating and compromising.
- **Confident, reflective, determined designers:** Children will be able to manage risks and create ambitious, high-quality products.
- **Motivated, enthusiastic and eager to learn:** Children will enjoy the challenge and creativity of Design Technology and show confidence in learning and applying new skills and techniques.
- **Knowledgeable and competent:** Children will leave the Acorn Federation able to apply the skills and knowledge learned within an increasingly, technological world.

Pupil Assessment and Attainment

Assessment of children's learning in Design and Technology is an ongoing monitoring of children's understanding, knowledge and skills throughout lessons by the class teacher, made through observations, key questions and marking. This assessment is then used to inform differentiation, support and challenge required by the children.

Subject Leader

The subject leader will:

- **Measure the impact of the subject through monitoring activities.** These activities will include evidence of children's work, photographs, pupil voice, learning walks, analysis of teacher's assessments, discussions with teachers and any other relevant evidence.
- **Evaluate the impact of Design and Technology.** Including identifying strengths and areas to develop further through creating an action plan, taking appropriate actions and implementing CPD for teaching staff.
- **Plan for enrichment activities** to further support the engagement and enjoyment of Design and Technology.