



GATEWAY FEDERATION



SUBJECT STATEMENTS

Curriculum Subject Area Design and Technology

Date October 2023

INTENT (Aims, Aspirations, linked to school values, Linked to our 'Federation Curriculum Statement')

In the Gateway Federation, we want our children to learn from, and contribute to, a broad and balanced curriculum, drawing on cross-curricular links where possible. We aim to develop children's full potential and encourage them to use their creativity and imagination, to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. We intend to design a Design and Technology curriculum with appropriate subject knowledge, skills and understanding as set out in the National Curriculum. Children will be given the opportunity to acquire a broad range of subject knowledge whereby they will learn to take risks, develop resilience in their attitudes towards their work and become resourceful, innovative and prepared for life after primary school.

Curriculum progression is clearly set out in our progression skills planning document, which has been structured to allow frequent opportunities for children to practice and embed key skills and concepts. From Foundation Stage onwards, we plan opportunities for our children to explore materials, practice their construction and design skills and express themselves creatively. During our design and technology lessons, children are fully submerged in the whole design process and get the opportunity to practice and express a range of skills in a supportive and safe environment.

In Design Technology, through an inspiring curriculum, we aim to ensure that all pupils:

- 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 as well as the work of others;
- Understand and apply the principles of nutrition and learn how to cook.
- Benefit from medium term planning which reflects the content and challenge of the 2014 National Curriculum, with space for pupil input, where British Values and SMSC (Spiritual, Moral, Social and Cultural) development are embedded.

IMPLEMENTATION (Long term Plan, Teaching approach, Wider community, Ensuring Progression, Wider Opportunities, Enrichment / Additions to the curriculum.)

In the Gateway Federation, from Foundation Stage through to Year 6, children are given opportunities to explore the use of materials and tools; to design and make prototypes; to discuss how things work; and to evaluate how they could be improved. Design and Technology is taught through areas of learning in accordance with EYFS documents and the National Curriculum for KS1 and KS2.

As part of their planning process, teachers will:

- Plan a series of lessons that promote the knowledge and vocabulary that pupils must master; Ensure planning provides progression and depth;
- Give opportunities for pupils to develop their skills by investigating, disassembling and evaluating existing products and using their findings to design innovative new products;



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- Encourage pupils to select appropriate tools and techniques for making a product, whilst following safety procedures.
- Value the opinions and ideas of pupils; Encourage pupils to critically evaluate their own work, and that of others, using details from the design brief. Foster enjoyment, satisfaction and purpose in designing and making whilst also encouraging pupils to be resilient and reflective when they are unsuccessful.

The areas of design and making covered throughout the school are:

Food Technology – emphasis is on healthy eating and a progression of skills using a variety of cooking techniques as well as the safe use of kitchen equipment and appliances.

Structures – emphasis is on using wooden frame constructions as a basis for products ensuring a progression of skills and using tools safely.

Mechanisms – this element is incorporated into the products made during the structures topic and includes: levers/slides, chassis/axles/wheels, pneumatics, electrical circuits, cams, gears and pulleys.

Textiles – emphasis is on sewing skills, progressively taught across each key stage and including fastening and other design elements to make a product appealing.

A strong focus for teaching is the use of correct technical vocabulary. Teachers carefully plan the language they use during their sessions and model, through discussion, specific technical vocabulary to help embed this language in the children's long-term memory.

Each class will undertake three Design Technology units per year. One of these will be Food Technology and the others may be selected from:

- Textiles
- Structures
- Mechanisms (KS1)
- Electrical or Mechanical Systems (KS2)

Children who have SEN or EAL are supported in a number of ways including; teaching key vocabulary prior to/at the start of the topic, seating children alongside good role models to support one another, providing visual/practical prompts, teaching lessons using a range of different techniques to appeal to different learning styles, and using directed adult support.

IMPACT (Measure of Success)

By providing our children with an excellent design and technology curriculum that provides a wide range of opportunities to develop their skills in Design Technology, we hope our children will:

- Be engaged and motivated to do well in their design and technology learning
- Build upon their prior learning and develop their skills
- Achieve age related expectations in Design Technology
- Develop skills and attributes that can be used beyond school and into adulthood



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To measure the impact of the implementation of our Design and Technology curriculum, there will be ongoing monitoring of children's understanding, knowledge and skills by the class teacher, throughout lessons and the year. This assessment is then used to inform planning, providing support and challenge as required by pupils.

The teaching of the use of tools, cooking equipment and sewing equipment is progressive, building year on year, to ensure that by the end of Key Stage 2, pupils have a full range of skills and understand how to use equipment safely.

The Design Technology coordinator will monitor and evaluate the effectiveness of lessons through;

- Learning walks
- Book scrutinies
- Pupil discussions about their learning, which includes discussion of their thoughts, ideas, processing and evaluations of work
- Displays across the school
- Work in sketchbooks
- Assessments against learning outcomes

Pupils will be meeting expectations in Design Technology if they:

- Disassemble and evaluate existing products, evaluating their purpose;
- Design purposeful and innovative products that meet the needs of their audience;
- Follow safety guidelines when making their product;
- Use a range of tools and techniques safely and effectively;
- Finish their work to a high standard;
- Critically evaluate their own work and that of others, being mindful of others' feelings;
- Suggest further ways to improve their own products.

Positive areas for the subject. (What is working well in our schools?)

- All areas of the curriculum are represented equally throughout the key stages.
- Teachers give careful consideration to the development of skills and techniques.
- Pupils are enthusiastic about their learning in Design Technology and are keen to take part and work hard.
- Pupils are sensitive to the feelings of others when discussing and evaluating their work.

Areas for development for the subject (2 or 3 points at the most)

- Ensure pupils have opportunity to disassemble and evaluate existing products before designing.
- Ensure design Technology lessons are taught over a period of time, to allow for effective designing, not all in one day.
- Consider project books for Design Technology which show a progression of lessons and can be passed up to the next class.

Examples of experiences & activities children will have / do.



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- Pupils investigate a wide range of products and examples before starting their own project. • Time is given to support the development of key skills, using the DATA help sheets, before starting their own product.
- Trips may be applicable, such as visiting the Food Tech departments of local secondary schools to use their facilities.
- Pupils learn from visitors who have a range of skills such as designers, textile experts or carpenters.

Curriculum Training Needs / Individual training needs.

New subject leader – Attended Design and Technology Association CPD session. To complete specific subject leader CPD.