St Mary's Farnham Royal Church of England Primary School

Through FAITH, as a FAMILY we aspire to grow. Thriving for all our FUTURES, enabling us to FLOURISH individually and as a community

SMFR Approach to Design Technology

This guidance outlines the teaching, organisation and management of the Design Technology curriculum taught and learnt at SMFR. The implementation of these guidelines is the responsibility of all teaching staff.

INTRODUCTION

At SMFR, we are a FAMILY committed to ensuring all children FLOURISH in our care; We take pride in providing our children with a broad and engaging curriculum, and fostering their desire and curiosity to learn.

SCHOOL VISION Through FAITH, as a FAMILY we aspire to grow. Thriving for all our FUTURES, enabling us to FLOURISH individually and as a community.

For I know the plans I have for you, plans to prosper you and not harm you, plans to give you hope and future
Jeremiah 29:11

INTENT

Also see
- Subject Goals
- Subject Progression Map

Subject Intent Statement

The intention of the Design and Technology curriculum at SMFR Primary School is to inspire our children's natural curiosity and interest into the world around them. Through engaging with and researching both new and known products, we ignite and foster a love of learning, a deeper understanding, and encourage the use of imagination and logical thought, to understand the workings of many systems, devices and makeups of foods. Our budding designers are also continually encouraged to question how their own products, and those of others, could be adjusted, reorganized and improved for efficiency of effectiveness. Through the continued practice, evaluation and modelling of, we intend to equip our children with a range of skills to best support them in becoming the problem solvers, designers, builders and engineers of the future.

We value Design and Technology and recognise that it is an inspiring, rigorous and practical subject with many opportunities for cross-curricular links; to assist our children in their acquisition of a broad range of subject knowledge. Using creativity and imagination, we aim to guide pupils 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 in the process. Our children acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art to further develop and guide their ability to design, construct and evaluate for a range of purposes. Through practical activities and shared discussion, we will help our children recognise the value in risk-taking and perseverance, along with the need to develop, revisit and adapt an initial idea. Through the evaluation of products from both the past and present we strive to continually model, and instil in our children, how to form a critical understanding of a product's impact on daily life and in the wider world. This will also inspire our children to take their learning and studies, and use them to design the products of the future. At SMFR, we believe that a high-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation, as that it is the foundation of inspiring and nurturing a desire to design better, make better, do better and be better.

Subject Aims

The national curriculum for design and technology aims 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 and the work of others
- understand and apply the principles of nutrition and learn how to cook.

IMPLEMENTATION

Also see: Appendix 1 Design Technology Non Negotiables

Subject Planning & Teaching

From the outset, our young designers are encouraged to think creatively and use their independent thought to guide ideas and experiment with materials, methods of construction and a variety of skills. Through a carefully planned progression, and the delivery of 'Quality First Teaching', we inspire the children to use their imagination to design, adjust and make products that solve real and relevant problems for themselves, the community and the wider world. By adjusting our lessons to follow the inquiries made by the children themselves, we aim to promote the value and importance of independence, the desire to complete one's own task, and to consider their own and others' needs, wants and uses for a product. Pupils learn how, and are encouraged to, take risks, maximise resourcefulness, innovate, enterprise and to become a well-informed contributing world citizen.

We believe it is fundamental that all children are supported to reach their full potential, and recognise how one of the key factors in doing so within the subject of design and technology is to encourage, support and demonstrate the importance or inquiry, research and evaluation. We also acknowledge that there are a variety of ways in which children learn, and ensure that we employ a range of teaching techniques, including modelling and independent, practical problem solving, to support these.

In each lesson, the children are guided to use and experiment with key vocabulary when exploring the variety of product designs, construction techniques and evaluation strategies. This continued use of terminology enables them to effectively plan, design, evaluate and assess products accurately; ensuring that they have a well-rounded understanding into the whole process of product creation. We also encourage the sharing of thoughts and opinions amongst our children, to not only explore the value in product reviews, but to also develop the children's ability to receive and accept the ideas and opinions of others. Developing this resilience is a key life skill, and not only sets the children up to be more resilient in the later life but also teaches them the importance of perseverance and the willingness to make alterations.

SMFR Design Technology Resources/Schemes

- Sonar Curriculum

Subject Enrichment: See Teaching, Learning & Assessment Policy

Inclusion for all Children: See Teaching, Learning & Assessment Policy

EYFS Statutory Framework:

The EYFS framework promotes teaching and learning to ensure children's 'school readiness' and gives children the broad range of knowledge and skills that provide the right foundation for good future progress through school and life. Through this curriculum, children will be exposed to aspects of knowledge, skills and understanding that will be built upon once they enter the National Curriculum Programmes of Study.

Design Technology Curriculum Link to EYFS Framework:

Expressive Arts and Design-The development of children's artistic and cultural awareness supports their imagination and creativity. It is important that children have regular opportunities to engage with the arts, enabling them to explore and play with a wide range of media and materials. The quality and variety of what children see, hear and participate in is crucial for developing their understanding, self-expression, vocabulary and ability to communicate through the arts. The frequency, repetition and depth of their experiences are fundamental to their progress in interpreting and appreciating what they hear, respond to and observe.

Physical Development-Physical activity is vital in children's all-round development, enabling them to pursue happy, healthy and active lives7. Gross and fine motor experiences develop incrementally throughout early childhood, starting with sensory explorations and the development of a child's strength, co-ordination and positional awareness through tummy time, crawling and play movement with both objects and adults. By creating games and providing opportunities for play both indoors and outdoors, adults can support children to develop their

core strength, stability, balance, spatial awareness, co-ordination and agility. Gross motor skills provide the foundation for developing healthy bodies and social and emotional well-being. Fine motor control and precision helps with hand-eye co-ordination, which is later linked to early literacy. Repeated and varied opportunities to explore and play with small world activities, puzzles, arts and crafts and the practice of using small tools, with feedback and support from adults, allow children to develop proficiency, control and confidence.

IMPACT

Standards of pupil work, assessment data and pupil feedback will help the subject leader and senior leaders review the impact of the Design Technology curriculum.

Standards of Pupil Work:
The subject leader will ensure they monitor the teaching and learning and hence the standard of work across the school, matching the knowledge, skills and understanding to the curriculum overview and age-related expectations for the subject. Each leader will be expected to produce an annual report (Deep Dive) informing the senior leaders and governors of their findings.

Assessment:

At SMFR we use Target Tracker to support our assessment of Design Technology

The learning objectives and outcomes in each planned lesson show how children might demonstrate what they have learnt. Assessment should inform planning so that children learn and develop skills appropriate to their abilities and understanding. Methods of assessment can include teacher observations, discussion with pupils, self-assessment and peer assessment.

Overall, children's progress in Design Technology is assessed against the age-related expectations. These describe the types and range of performance that the majority of pupils should characteristically demonstrate, having been taught the relevant programmes of study.

Pupil Feedback:
As part of the on-going review and development of our curriculum, the Design Technology the Subject Leader will hold learning conversations with children; this will be done in a variety of ways. Our teaching staff value pupil feedback and, within lessons, will informally seek the children's thoughts and ideas about their learning.

Role of the Design Technology Subject Leader:
- To ensure a high profile of the subject.
- To produce an agreed curriculum statement that outlines the intent, implementation and impact for Design Technology within the SMFR curriculum.
- To produce an agreed progression of content and skills within a curriculum overview, that takes account of the EYFS curriculum and National Curriculum.
- To produce and maintain an annual subject action plan.
- To support colleagues by advising them on planning; appropriate resources; teaching strategies; approaches to assessment; changes and developments within the subject.
- To model the teaching of Design Technology.
- To ensure a full range of relevant and effective resources are available to enhance and support learning.
- To monitor the standards of learning, supported by Senior Leaders i.e. through books, lesson observations, learning conversations, data analysis and ensuring that key knowledge is evidenced in outcomes.

- To develop own skills and knowledge through relevant courses; reading; accessing other sources of information and expertise.

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Appendix 1 Design Technology Non Negotiables

	In Every Lesson	Where Appropriate
INTENT	- Learning appropriate to agreed SMFR subject Progression Map & Goals - WILFs linked to National Curriculum WALT linked to National Curriculum - Use of a range of well thought out resources including IT - Focus on handwriting & presentation (where appropriate)	
IMPLEMENTATION		
Challenge	3 way differentiation (including scaffolding) - Opportunities for challenge - Hooks - Three before me	- Use of KWL grids - Use of targets - Focus on Gem Powers
Speech & Language	- Focus on vocabulary - Talk Partners - Focus on speech & language - Pupil talk > Teacher talk	
IMPACT		
AFL	- Questions to check understanding. - Scanning classrooms - Mini plenaries - Marking & Feedback, where appropriate, in accordance with SMFR policy - Discussions with children. - Collaborative learning - Adapted planning for the next lesson. - KS1 children's self assessment - KS2 children's 'EXIT Messages'	- Peer evaluation - Self assessment .Flexible groupings. - Children's peer and self-assessments. - Interventions to plug gaps. - All pupils are introduced to a topic through using KWL grids in order to assess and monitor success criteria - Testing - Quizzing