XII Apostles RCPS

Design and Technology Policy

Mrs Yates

May 2024

Date Approved by the Governing body; 1

(Chair): _____

(Headteacher):_____

INTRODUCTION

TWELVE APOSTLES MISSION STATEMENT

Our school's Mission Statement says,

'Through Learning and Loving we will follow Jesus'

- To place Christ at the centre of everything we do
- To recognise that each child is unique and to ensure that each child is educated to fulfil their human potential
- To develop an understanding of Community; being able to recognise, respect and celebrate the diversity of all within it.

Our school's Mission Statement affirms those beliefs and helps us to keep these beliefs as the basis for everything we do and gives us the purpose for all our work in Twelve Apostles.

Everyone will matter and be treated with love and will be helped to carry out their special role in God's World. In order for every child to fulfil their potential we ensure they experience a broad, balanced and engaging Design Technology curriculum that is accessible to all.

STATEMENT OF INTENT

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1. Legal Framework

This policy has due regard to statutory framework including, but not limited to, the following:

- The Education Act 2002
- The Children Act 2004
- The Equality Act 2010
- DfE (2017) 'Special educational needs and disability code of practice: 0 to 25 years'
- DfE (2013) 'The national curriculum in England'
- DfE (2017) 'Statutory framework for the early years foundation stage'
- Ofsted (2019) 'School inspection handbook'

This policy operates in conjunction with the following school policies:

- Assessment Policy
- Science Policy
- Assessment Policy
- Marking and Feedback Policy
- Teaching and Learning Policy
- Homework Policy
- Parent Code of Conduct
- Behavioural Policy

2. Aims

The second aim of our mission statement is that all children are unique and are, 'educated to fulfil their human potential.' At Twelve Apostles, our vision for Design Technology follows the mantra: cultivating beginner's minds. DT will provide our children with a real life context for learning, inspired by engineers, designers, chefs and architects to enable them to create a range of structures, mechanisms, textiles, electrical systems and food products with a real life purpose. Our children will experience a broad range of designing and making activities which involve a variety of methods of communication; speaking, designing, drawing, assembling, making, writing and using computer technology. In this way, children will have the opportunity to experience and aspire to possible future careers leading to financial and economic well-being and thus for many escaping the poverty trap in an area of high deprivation

3. Roles and responsibilities (including monitoring & evaluation)

The SLT and Governing body are responsible for approving and monitoring this policy.

Subject Leaders responsibilities include:

- Providing strategic leadership and direction for your subject
- Producing LTP

- Reporting termly to Governors on standards in this subject
- Supporting and offering advice to colleagues on issues relating to the subject or curriculum area
- Monitoring pupil progress in your subject and reporting to SLT.
- Providing efficient resource management.
- Ensuring the curriculum is inclusive and accessible to all
- Assisting teachers with the planning and implementation of the curriculum, ensuring their workload is manageable
- Ensuring the curriculum is implemented consistently throughout the school and ensuring any difficulties are addressed and mitigated as soon as possible
- Making any necessary adjustments to the curriculum where required.
- Keeping up-to-date with any relevant statutory updates and taking action where required
- Creating and maintaining an up-to-date curriculum intent statement.
- Ensuring the curriculum is created in accordance with this policy.
- Updating and maintaining this policy.

4. National Curriculum

Design Technology is predominantly taught following the through a cross curricular approach.
The teaching of Design Technology across the school follows the DfE (2013) 'The national curriculum in England', 'Design Technology programmes of study: key stages 1 and 2'. Teachers utilise ideas from the Design and Technology Association's 'Projects On A Page' documents and Nuffield Primary Design and Technology | STEM web site.

5. Intent, Implementation and Impact Statement

Intent

"I think one of the big challenges is actually cultivating beginners' minds and making sure you're still open to the world and continue to see new things… Those are the things an entrepreneur needs—an open mind and the ability to see the world with new eyes."- Caterina Fake: an American entrepreneur and businesswoman who co-founded the websites Flickr and Hunch.

At Twelve Apostles, our vision for Design Technology is just that: cultivating beginner's minds. DT should provide children with a real life context for learning. inspired by engineers, designers, chefs and architects to enable them to create a range of structures, mechanisms, textiles, electrical systems and food products with a real life purpose.

The aims of the National Curriculum for Design and Technology 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

Curriculum Implementation

The teaching of Design and Technology across the school follows the National Curriculum. It is cross - curricular and draws upon subject knowledge and skills within Mathematics, Science, History, Computing and Art. Teachers use some ideas from the Design and Technology Association's 'Projects On A Page' documents and Nuffield Primary Design and Technology | STEM web site

Children design products with a purpose in mind and an intended user of the products. Food technology is implemented across the school with children developing an understanding of where food comes from, the importance of a varied and healthy diet and how to prepare this. Many of the projects undertaken by the children enable the children to learn about sustainability and encourage them to reuse materials or cook with locally grown produce.

Design and Technology also embeds Twelve Apostles Learning Powers. It is an inspiring, rigorous and practical subject, requiring curiosity, creativity, collaborative working, resourcefulness, and imagination. Pupils design and make products that solve real and relevant problems within a variety of contexts. Children learn to take risks, be reflective, innovative, enterprising and resilient. Through the evaluation of past and present technology they can reflect upon the impact of Design Technology on everyday life and the wider world.

All teaching of DT should follow the design, make and evaluate cycle. Each stage should be rooted in technical knowledge. The design process should be rooted in real life, relevant contexts to give meaning to learning. While making, children should be given choice and a range of tools to choose freely from. To evaluate, children should be able to evaluate their own products against a design criteria.

Impact

At XII Apostles, we recognise the unique needs of each child and support them in reaching their human potential. The impact of our Design and Technology curriculum is measured in the experiences, confidence and competence of our children within the subject and the ability to apply the disciplinary knowledge they have been taught, in other subjects and within the wider world. We ensure children receive the experiences they require, both within and beyond the curriculum, to develop their skills and become confident in the different areas of the subject.

6. Cross-curricular links

Where possible, we teach using a cross curricular approach in order to make learning meaningful for the children. It draws upon subject knowledge and skills within Mathematics, Science, History, Computing and Art.

7. Assessment and reporting

Assessment of children's learning in Design Technology is an ongoing monitoring of children's substantive and disciplinary knowledge by the class teacher, throughout lessons. This assessment is then used to inform adaptive teaching and challenge required by the children.

Summative assessments are completed at the end of the school year (Appendix 1) by class teachers across each year group of the school to inform the subject leader of progress or skills and knowledge still to be embedded. This is recorded and passed on to the next teacher and subject leader.

Design Technology is also monitored by the subject leader throughout the year in the form of book monitoring, looking at outcomes and pupil interviews to discuss their learning and understanding and establish the impact of the teaching taking place.

8. **Planning and Teaching**

DT is a non-core subject and each cohort accesses at least two projects within the school year. The LTP ensures coverage in each key stage in line with the National Curriculum and progression of substantive and disciplinary knowledge. Opportunities are given for children to revisit concepts and practice substantive and disciplinary knowledge throughout their time in school. Due to the practical nature of this subject area, there is the scope for units of DT, where appropriate, to be blocked in order for the children's experiences to be more meaningful and learning maximised.

All teaching of DT follows the design, make and evaluate cycle.

When designing and making, the children are taught to:

Design

- use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
- generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional diagrams, prototypes, pattern pieces and computer-aided design

Make

- select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing) accurately
- select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

Evaluate

- investigate and analyse a range of existing products
- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- understand how key events and individuals in design and technology have helped shape the world

Each stage is rooted in technical knowledge.

Technical knowledge

- apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- understand and use mechanical systems in their products
- understand and use electrical systems in their products
- apply their understanding of computing to program, monitor and control their products

The design process is rooted in real life, relevant contexts to give meaning to learning. Children design products with a purpose in mind and an intended user of the products. Food technology is implemented across the school with children developing an understanding of where food comes from, the importance of a varied and healthy diet and how to prepare this.

Design and Technology also embeds Twelve Apostles Learning Powers. It is an inspiring, rigorous and practical subject, requiring curiosity, creativity, collaborative working, resourcefulness, and imagination. Pupils design and make products that solve real and relevant problems within a variety of contexts. Children learn to take risks, be reflective, innovative, enterprising and resilient. Through the evaluation of past and present technology they can reflect upon the impact of Design Technology on everyday life and the wider world.

Early Years Foundation Stage

Design Technology starts in the EYFS. children are supported in the development of skills, knowledge and understanding that help them make sense of the world. We relate the development of the children's knowledge and understanding of the world to the objectives set out in The Early Years Foundation Stage curriculum and the Early Learning Goals

Planning:

Medium term plans are created each term by teachers. Short term plans are created by teachers. All plans are shared and stored on the shared server in school. Planning scrutinies are carried out by the Design Technology leader and SLT.

9. Resources

DT is well resources within school. There are a wide range of tools and materials for the children to utilise safely, and these are stored within the DT area in the KS2 department. Further supplementary and perishable resources (eg. ingredients for cooking units) are purchased or contributed through parental donations when appropriate.

10. Inclusion supporting pupils with SEND

Whole school policy on equal opportunities will be adhered to in Design and Technology activities. Teachers ensure that children have access to the range of Design and Technology activities and use opportunities within Design and Technology to challenge stereotypes. Children are encouraged and supported to develop their Design and Technology capability using a range of materials. Children with special needs or disabilities will be differentiated for and supported appropriately, to ensure development of skills and equal access to the Design and Technology curriculum.
All children will be supported through adaptive teaching, to enable equal access to learning in Design and Technology.

11. Parental Involvement:

We encourage all parents and carers to support and assist with whole school events and Design and Technology projects.

12. Monitoring and review

The effectiveness of this policy will be monitored continually by the head teacher. Any necessary amendments may be made immediately. This policy is reviewed every two years by the Design Technology subject leader and the head teacher. The scheduled review date for this policy is May 2026.