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It has no worries in a year of drought and never fails to bear fruit.

Jeremiah 17: 7 - 8

Design and Technology Policy

Introduction

At The Federation of Middleham (VA) & Spennithorne (VC) CE Primary Schools, we strive to deliver a high-quality and ambitious Design and Technology curriculum which enables children to understand the process involved in designing and creating a product. We want children to embody our core values and to **LIVE FRUITFUL LIVES** as designers, technologists, chefs, architects or carpenters and to enjoy being innovators and problem solvers in a world where they can **LEARN, LOVE and GROW**. We explicitly teach children the skills and knowledge they need to become competent designers, producers and evaluators. We encourage children to become resourceful and enterprising citizens who will have the skills to contribute to future design advancements. Our core aims are to provide teaching and learning opportunities through the Design and Technology curriculum that empowers the children to be:

ASPIRATIONAL
RESPECTFUL
RESILIENT

We believe that by having these three aims at the root, we will equip our children with the values to help them succeed as life-long learners and children of God. The 'giving' of these fruits are what drives the curriculum at the Federation of Middleham (VA) & Spennithorne (VC) CE Primary Schools.

Curriculum Intent

At The Federation of Middleham (VA) & Spennithorne (VC) CE Primary Schools, we believe that a high quality Design and Technology curriculum will inspire children to be innovative and creative thinkers who have an appreciation for the product design cycle through ideation, creation and evaluation. We want our children to be reflective learners who develop the confidence to take risks through drafting design concepts, modelling and testing and evaluating their own work and that of others. At The Federation of Middleham (VA) & Spennithorne (VC) CE Primary Schools, we use the Kapow scheme of learning for Design and Technology, which enables children to meet the end of key stage attainment targets in the National Curriculum and ensures a progressive and effective curriculum.

We aim 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.

Teachers will ensure teaching of Design and Technology has the federation's Christian ethos and values at its root.



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Implementation.

Effective learning

We acknowledge that children learn in many different ways and we recognise the need to develop strategies that allow all children to learn in ways that best suit them most effectively. We take into account the different ways that children learn when planning and teaching in order to ensure all children access a full and varied curriculum.

We offer opportunities for all children to learn in different ways in Design and Technology as outlined in our [Teaching and Learning Policy](#).

The Design and Technology National Curriculum outlines the 3 main stages of the design process: design, make and evaluate. Each stage of the design process is underpinned by technical knowledge which encompasses the contextual, historical and technical understanding required for each strand.

Cooking and nutrition has a separate section with a focus on specific principles, skills and techniques in food, including where food comes from, diet and seasonality.

Then National Curriculum organises the Design and Technology attainment targets under 5 strands:

- Design
- Make
- Evaluate
- Technical knowledge
- Cooking and Nutrition.

There is a clear progression of skills and knowledge within these 5 strands across each year group. Our curriculum overview shows which units cover each of the National Curriculum attainment targets as well as each of the 5 strands. The progression of skills document shows the skills that are taught within each year group and how these skills develop to ensure that attainment targets are securely met at the end of each key stage.

Please see Curriculum Overview.

Effective Teaching

At The Federation of Middleham (VA) & Spennithorne (VC) CE Primary Schools, Design and Technology is planned, as far as possible, to link to other areas of learning. Each unit of work includes teacher videos to develop subject knowledge and support ongoing CPD, allowing teaching staff to feel confident in teaching the subject and to ensure high quality lessons and pupil progression. Through the Kapow Design and Technology scheme of learning, children respond to design briefs and scenarios that require consideration of the needs of others, developing their skills in 6 key areas:

- Mechanisms
- Structures
- Textiles
- Cooking and Nutrition
- Electrical Systems (KS2)
- Digital World (KS2)

Within these areas, the following 6 key principles, to a lesser or greater degree, should be evident in each project that children undertake.

- User • Purpose • Functionality • Design Decisions • Innovation • Authenticity



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For example, if children are designing and making their own fruit salads for a summer picnic, they will explore who they are making their product for as part of their DT journey and they may carry out a survey of favourite fruits to include.

In each key area, the design, make and evaluate process is followed. Our scheme of learning allows key areas to be revisited again and again with increasing complexity allowing children to revisit and build upon prior learning. Lessons include a range of teaching strategies from independent tasks, paired and group work, including practical hands on, computer based and inventive tasks. We aim to create engaging lessons to suit a range of learning styles. Planning ensures all children's needs and abilities are catered for within their year groups and is stored on Microsoft Teams.

Vocabulary

Developing children's vocabulary is an essential root to the Design and Technology curriculum and allows them to communicate their ideas confidently and to respond to their work and to that of others.

Enrichment Opportunities

Design and Technology days are scheduled into teaching timetables to allow for maximum impact on learning. Children will have opportunities to research real products and design and make their own. This may involve market research and engaging with the local community.

Early Years Foundation Stage

Design and Technology is taught in Reception through child-initiated and adult led activities. Design and Technology is covered in the Expressive Arts and Design area of learning. Children are encouraged to explore and play with a wide range of media and materials, as well as being given opportunities and encouragement to share their thoughts, ideas, and feelings through a variety of activities in design and technology.

By the end of EYFS, children will have had the opportunity to:

- Explore the textures, movement, feel and look of different media and materials
- Respond to a range of media and materials, develop their understanding of them in order to manipulate and create different effects.
- Use what they have learnt about media and materials in original ways, thinking about uses and purposes.
- Use different media and materials to express their own ideas
- Explore colour and use for a particular purpose
- Develop skills to use simple tools and techniques competently and appropriately
- Select appropriate media and techniques and adapt their work where necessary
- Represent their own ideas, thoughts and feelings through design and technology Children recognise that a range of technology is used in places such as homes and schools.
- They select and use technology for particular purposes.

Please see EYFS Long Term plan.

Resources

Children will have opportunities to use a variety of resources in Design and Technology lessons. These will include a range of tools and equipment, such as scissors, glues, hacksaws, bench hooks, glue guns and hand drills. They are given careful instructions in the safe and considerate use of these items. All equipment necessary will be accessible to children at the appropriate age.



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Digital Learning

The use of technology to support and enhance pupils' learning is a high priority in school to provide pupils with the necessary skills for: the next stage of their education, their lives in an ever-changing digital society and their future careers. Researching designs, designers and products within a Design and Technology unit may be a key objective in a particular unit and we ensure that children are provided with the digital devices they need to support their learning. Teachers plan to use a range of online resources making good use of the school laptops and iPads.

We also ensure that the school offers an excellent approach to blended and remote learning (please refer to our teaching and learning policy for more details).

Health and Safety

We must obviously be alert to any possible dangers when working in school. It is very important that children are aware of the safe handling and storage of any tools and equipment. Risk assessments are carried out prior to any visits or visitors attending the school.

Equal Opportunities and Special Education Needs and Inclusion

All children are given opportunities to access the National Curriculum requirement. All children regardless of ability, ethnicity, religion or gender, will be given equal opportunity to access all aspects of the Design and Technology curriculum. Any child experiencing difficulty in accessing part, or all, of the curriculum, will be supported with the time, materials and equipment to access the activity at their own level where this is practically possible. Planning, resources and displays will reflect positive images of all communities represented in our society.

Impact

Assessment for Learning

At The Federation of Middleham (VA) & Spennithorne (VC) CE Primary Schools assessment is an integral part of the teaching process. The assessment of children's work is on-going to ensure that understanding is being achieved and that progress is being made. Teachers take time to review pupil knowledge and use these assessments to inform and adapt future planning. Opportunities for pupils to make connections to deepen understanding is central to learning and this is outlined in our curriculum maps for each subject.

Feedback is given to the children as soon as possible, and marking work will be guided by the school's Marking Policy.

At The Federation of Middleham (VA) & Spennithorne (VC) CE Primary Schools, the intended impact for all our children is that they will:

- Understand the functional and aesthetic qualities of a range of materials and resources.
- Understand how to use and combine tools to carry out different processes for shaping, decorating and manufacturing products.
- Build and apply a repertoire of skills, knowledge and understanding to produce high quality innovative outcomes.
- Understand and apply the principles of healthy eating, diets and recipes, including key processes, food groups and cooking equipment.
- Have an appreciation for key individuals, inventions and events in history and of today that impact our world.
- Recognise where our decisions can impact the wider world in terms of community, social and environmental issues.
- Self evaluate and reflect on learning at different stages and identify areas to improve.



The Federation of Middleham (VA) & Spennithorne (VC) CE Primary Schools

Executive Headteacher – Mrs Marie Mann

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Teacher's update the assessment tracker for Design and Technology following a topic (at least termly) to record progress and objectives covered.

Subject Leaders monitoring

The subject leader reviews standards and monitor the impact of the Design and Technology curriculum provision whilst also ensuring training and resources are up to date.

Monitoring and review

We are aware of the need to review the Design and Technology policy regularly so that we can take account of new initiatives, pupil needs, changes in the curriculum, developments in technology or changes to the physical environment of the school.

S Bradbury May 2022