**Design & Technology Policy**

**Bearpark Primary School**



***A Baseline For***

***Outstanding Practice***

October 2022

Review date: October 2023

“The nature of design and technology is such that is should provide opportunities for pupils to engage in activities that are challenging, relevant and motivating. This should give pupils enjoyment, satisfaction, and a sense of purpose.”

“Design and Technology in primary schools develops children’s skills and knowledge in design, structures, mechanisms, electrical control and a range of materials, including food. It encourages children’s creativity and encourages them to think about important issues.” (DATA Primary Guidance).

**Introduction**

At Bearpark Primary School we are committed to providing all children with a curriculum preparing them for life beyond primary education. Design and Technology is an inspiring, rigorous, and practical subject. It encourages children to think creatively to solve problems both as individuals and as members of a team. We actively support and encourage children 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.

Our Design and Technology planning and practice is based on the National Curriculum. It combines skills, knowledge, concepts, and values to enable children to tackle real problems. Children are encouraged to take risks and are supported as they develop their abilities in becoming practical and resourceful learners. Activities and tasks are =planned to help the children become innovative, enterprising, and capable citizens.

We aim to link work to other disciplines such as mathematics, science, engineering, computing, and art. High=quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation. It can improve analysis, problem-solving, practical capability and evaluation skills.

**Value of Design and Technology**

We believe design and technology is about designing and making products for a specific user and purpose. It involves children in learning about the world we live in and developing a wide range of knowledge and skills through designing and making. It helps children to think through problems creatively, about how to organise themselves and how to use knowledge and skills to bring about change and to shape the environment. Through design and technology children become discriminating and informed users of product and become innovators.

**Aims of Design and Technology**

We believe design and technology offers opportunities for children to:

* 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 end prototypes and products, through combining their designing and making skills with knowledge and understanding, for a wide range of users
* Develop an interest and understanding of the ways in which people from the past and present have used design to meet their needs
* 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.

In Early Years Foundation Stage we provide opportunities for the children to:

* Develop a curiosity and interest in the designed and made world through investigating, talking and asking questions about familiar products
* Develop confidence and enthusiasm through frequent exploration of construction kits to build and construct objects, and activities for exploring joining, assembling and shaping materials to make products
* Extend their vocabulary though talking and explaining about their designing and making activities.

**Implementing Design and Technology**

Early Years Implementation

The Early Years Foundation Stage is essential in securing solid foundations that children are going to continue to build upon. We believe that all children deserve to be valued as individuals and we are passionate in encouraging all children to achieve their full potential. A flexible and child-centred approach linked to both the Prime and Specific Areas of Learning of the EYFS curriculum is used, taking into account the individual needs and interests of the children. This enables children to follow their learning journey from a point that is suitable to their unique needs and stage of development, supporting them to develop into independent learners with a thirst for knowledge and a desire to learn. In design technology, EYFS skills are developed through a variety of experiences involving different media and materials and are taught to use a selection of tools correctly and safely. They are then encouraged to explore what they have learned within the setting.

Key Stage 1 and 2 Implementation

The long-term plan for design technology ensures that the requirements of the National Curriculum are met in full. It also ensures that the teaching units are distributed across the key stages in a sequence which promotes curriculum continuity and progression. Each year group will undertake projects throughout the year with a focus on construction, food and drink and textiles to ensure a range of skills are taught. Teachers ensure that the children apply their knowledge and understanding when developing ideas, planning and making products, and then evaluating them. This is done through a mixture of whole-class teaching and individual or group activities. Within lessons, children are given the opportunity both to work on their own and to collaborate with others, listening to other children’s ideas and treating these with respect. Children critically evaluate existing products, their own work and that of others.

**Planning**

* In the EYFS, daily design and technology activities are planned; some initiated by the children and some led by adults.
* Children in their designing and making will apply knowledge and skills of: textiles, food and workshop.
* Every year group to do a food project per year.
* All design, make and evaluate assignments provide learning opportunities for developing creativity through designing skills such as generating, exploring, modifying ideas through drawing, modelling with materials and problem solving.
* All projects should include the three types of activity:
* Investigative and Evaluative Activities - where children learn from a range of existing products and find out about D&T in the wider world
* Focused tasks - where they are taught specific technical knowledge, designing skills and making skills
* Design, make and evaluate Assignments - where children create functional products with users and purposes in mind.

**Links with other subjects and key competencies**

* We believe design and technology provides a natural opportunity for children to practice and improve basic skills such as spoken language, English and mathematics
* In our design, make and evaluate assignments we aim to provide learning opportunities for developing key competencies such as problem-solving, teamwork, negotiation, consumer awareness and organisation
* In Key Stage 2, through evaluating the process and their final products children will be encouraged to improve their own
* Children develop and apply knowledge and skills from art and design, science, computing and English in design and technology. Teachers will make links wherever possible to help raise standards in both subjects and enhance children’s learning
* Design and technology is used to raise children’s appreciation of British Values.

**Extending the curriculum**

* Children should develop an understanding of the design and made world through first-hand experience
* Wherever possible children will be given opportunities to visit local museums, shops and restaurants and meet with designers, engineers, chefs, architects and students from college or secondary schools.

**Organisation**

All class teachers will have responsibility for planning and teaching Design and Technology to their classes.

**Inclusion**

A wide range of cultural images and contexts will be used in design and technology, and we will use these opportunities to challenge stereotypes. For all children to produce their best, we adapt resources and tasks through:

* adapted worksheets
* changing the demands of a task
* more limited choices
* greater teacher intervention, small group work and teaching assistant support
* ensuring manipulative skills needed are manageable
* selecting appropriate tools and equipment
* Talented or able children are challenged through more demanding tasks such as more open-ended design briefs, rigorous testing of their products, carrying out independent research, giving additional responsibilities such as leading a team

**The learning environment**

We aim to provide a learning environment where children feel secure and creative risk-taking and problem solving is encouraged and children’s design ideas and suggestions are valued.

**Assessment, recording and reporting**

Throughout the year, teachers assess children’s learning in various ways, through making, observations, questioning and discussions.

* Children in Key Stages 1 and 2 will keep sketches, plan drawings, paper mock-ups, notes and evaluations. These can be used for assessment purposes and for monitoring progression
* Teachers make notes at the end of projects on children who were significant above or below expectations; this will inform future planning
* Children are encouraged to make personal assessments of their own work through evaluating activities and identifying what they need to do to improve.

**Management and organisation of resources**

The design and technology subject leader will order resources towards the end of each term for specific planned projects. A request for alternative or additional resources can be made at this time. The resources are stored in labelled boxes in the central DT storage area and should be returned after use.

* Tools and equipment such as glue guns, wire strippers, hacksaws, bench hooks, craft knives and cutting mats are kept centrally and are safety checked annually and replaced when required.
* Food will be bought and used on the day it is needed.

Teachers will have access to supporting materials from the subject leader: help sheets, exemplar models, power points, worksheets and products for investigation, posters and photographs.

The following is a list of useful resources and websites:

Design and Technology Association [www.data.org.uk](http://www.data.org.uk)

Computer Aided Design (CAD) design [www.tinkercad.com/](http://www.tinkercad.com/)

James Dyson DT Challenge cards and ideas [www.jamesdysonfoundation.co.uk](http://www.jamesdysonfoundation.co.uk)

<https://www.primaryengineer.com>

<https://www.stem.org.uk>

**Health and safety**

* Risk assessments will be carried out prior to design and technology projects
* Teachers will always teach the safe of tools and equipment and insist on good practice
* Children will be taught how to take steps to control risks
* Glue guns will be used by Key Stage 2 children under supervision, only when there is no other appropriate joining technique.

**Food – hygiene and safety**

* The teacher or teaching assistant will ensure all equipment is clean and in working order
* Plastic aprons will be worn by adults and children working with food
* Adults and children will always follow the preparation and cleaning routine
* Prior to food activities, children who are not permitted to taste or handle food products or ingredients will be identified.

**Role of the design and technology subject leader**

The subject leader will:

* Monitor and evaluate the learning and teaching of design and technology within the school
* Devise an action plan to show future developments and review progress
* Provide specialist support and guidance, where possible, to colleagues on teaching projects and planning
* Purchase and organise resources and maintain equipment to make them easily accessible for colleagues
* Attend courses and cluster meetings for CPD and report back to staff
* Explore ways to raise the profile of design and technology within school and make links with local businesses and feeder schools
* Encourage parents to be involved in their children’s learning in design and technology.

**DISSEMINATION OF THE POLICY**

**The policy will be given to all members of staff and copies will be available for parents.**

**PROCEDURES FOR MONITORING AND EVALUATION**

**The Head Teacher, members of the senior management team and members of the curriculum leadership team, will monitor the policy.**