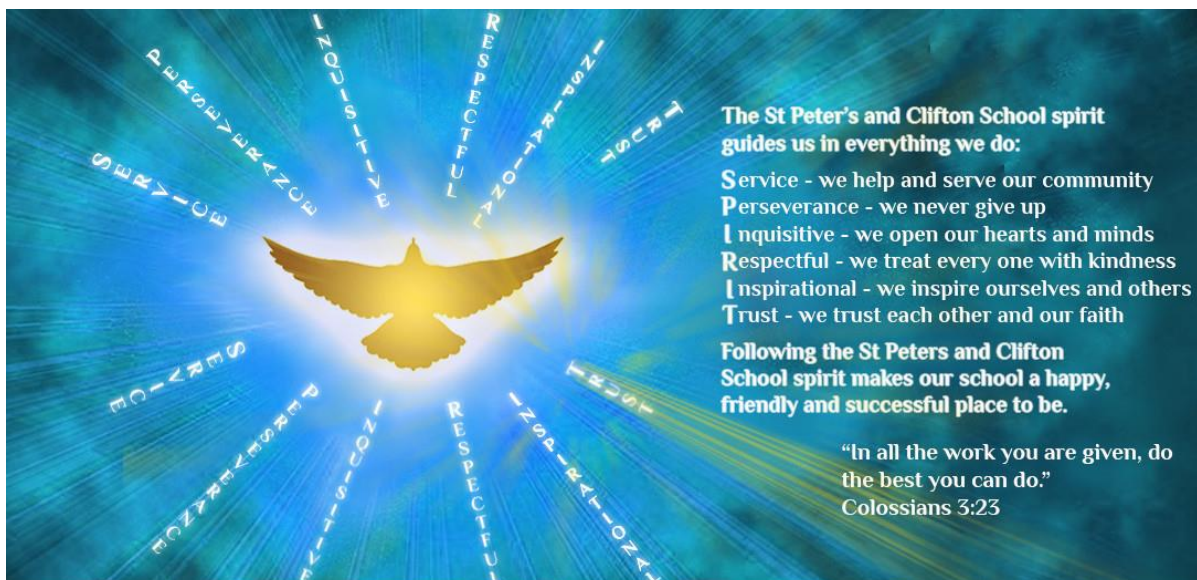




## Design and Technology Policy



## **1. Curriculum**

### **Intent**

At Horbury St Peter's and Clifton Primary School, we intend to instil the "St Peter's Spirit" in all our children. The teaching of Design and Technology encourages our children to particularly value the importance of being:

### **Inquisitive and Inspirational**

as their unique creativity and imagination is used to design and make products that solve real and relevant problems within a variety of contexts. Our children consider not only their own needs, wants and values but those of others too. Showing that they are resourceful, capable citizens who open their hearts and minds to inspire themselves and others in the design world.

The 2014 National Curriculum for Design and Technology aims 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.

### **Implementation**

#### **How this is implemented across our school**

All children are given the opportunity to develop the skills and knowledge in design, materials, structures, mechanisms and electrical control. Within our school this is implemented through the subject content of the 2014 National Curriculum: Design, Make, Evaluate and Technical Knowledge. As well as our school curriculum principles. These six interrelated principles provide a genuine experience of Design and Technology for our children. They are: User, Purpose, Functionality, Design Decisions, Innovation and Authenticity.

#### **User**

Our children have a clear idea of who they are designing and making products for, considering their needs, wants, values, interests and preferences. The intended users could be themselves or others, an imaginary or story-based character, a client, a consumer or specific target group.

#### **Purpose**

Our children can clearly communicate the purpose of the products they are designing and making. Each product they create is designed to perform one or more defined tasks. The children evaluate their products based on their purposefulness.

### Functionality

Our children design and make products that work and function effectively in order to fulfil users' needs, wants and purposes.

### Design Decisions

Our children are given opportunities to make their own design decisions. Making design decisions allows our children to demonstrate their creative, technical and practical expertise, and draw on learning from other subjects. Through making design decisions our children decide on the form their product will take, how their product will work, what task or tasks it will perform and who the product will ultimately be for.

### Innovation

When designing and making, our children are given scope to be original with their thinking. Projects that encourage innovation lead to a range of unique design ideas and products being developed that are characterised by engaging open-ended starting points for learning.

### Authenticity

Our children are encouraged to design and make products that are believable, real and meaningful to themselves and others.

## **2. Teaching and Learning of Design and Technology**

### **How this is implemented in Foundation Stage**

The teaching of Design and Technology in foundation stage is underpinned by the objectives of the Early Learning Goals (ELGs). It is particularly prevalent in the implementation of the early years principle: a unique child. In foundation stage, we encourage our children to explore the use of media and materials to drive their imaginative thoughts in order to design and make products. Design and Technology provides a meaningful connection to the early development of children's understanding of the world through children's inquisitiveness to be creative in child-led activities. This is then reinforced and supported by EYFS practitioners who accelerate and encourage the children's learning through open-ended questioning.

### **How this is implemented in KS1 and KS2**

The teaching of Design and Technology in KS1 and KS2 is underpinned by the subject content of the 2014 National Curriculum: Design, Make, Evaluate and Technical Knowledge. As well as our school curriculum principles.

KS1 children will be taught:

- Design: to design functional and attractive products to appeal not only to themselves, but also to other identified users.
- Make: to select and use a range of tools and materials.
- Evaluate: to evaluate their own designs against the design criteria and to evaluate existing products.

- **Technical Knowledge:** to build structures, exploring how they can be made stronger, stiffer and more stable and explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

KS2 children will be taught to build on and develop the skills learned and acquired in KS1:

- **Design:** to carry out research of existing products. To develop design criteria in order to produce a product which is fit for purpose and aimed at a specific group of people.
- **Make:** to select and use a range of tools and materials, taking into account their product's functional and aesthetic qualities.
- **Evaluate:** to evaluate existing products, their own work and the work of others in order to improve their design. To have an understanding of how designers and their products have helped to shape the world.
- **Technical Knowledge:** to 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 and apply their understanding of computing to program, monitor and control their products.

### **How this is implemented in our planning**

The planning of Design and Technology is the responsibility of the class teacher with support from the Design and Technology Co-ordinator and guidance from the 2014 National Curriculum. It is of the discretion of the class teacher as to when they want to dedicate lesson time to the teaching of Design and Technology. Our Long-Term plans outline key topics which then feed into our Medium-Term plans which give further detail in the form of specific individual lessons, objectives and outcomes. Our Design and Technology topics are planned so that a development of skills (highlighted in our progression of skills document) and an opportunity for children to experience a variety of product outcomes is seen as progression throughout the year groups 1-6.

### **How this is implemented in a general teaching sequence of lessons**

1. The class teacher delivers a design brief which poses a problem to be solved in a context the children understand
2. Children research existing products and possible construction materials and tools
3. Children create their own design, in response to the brief and their research
4. Children make their product
5. Children critically evaluate their work

All children will have the opportunity to complete focused practical tasks in which our children will practice particular skills to aid in their making of products. This should not be undertaken in isolation; children can still produce a product even though the main aim is skill development. For example: children may produce a

Christmas card but the main intention is to provide an opportunity for children to practise folding card accurately and in using adhesive for small-scale work.

### **How this is implemented in each lesson**

In Design and Technology, like all other subjects, we recognise the importance of the methods and practice of teaching (the pedagogy) we choose to use in enabling our children to know more, understand more and remember more. Therefore, a variety of teaching and learning styles are used in our Design and Technology lessons. These include: direct teacher instruction, modelling of skills and demonstration; questioning, using both open and closed question stems; a mix of individual, paired and group activities, to allow for both collaborated and child specific outcomes. We believe in whole-class teaching methods combined with differentiated tasks and/or outcomes to suit the individual requirements of our children.

### **3. Assessment**

#### **How this is implemented in our assessment**

Any assessment undertaken will be used to inform teaching in a continuous cycle of planning, teaching and assessment. Teachers will regularly assess progress through observations and children's independent outcomes. We value the use of both formative and summative assessment:

Formative assessments are carried out during and following individual lessons. They provide children and teachers with the opportunity to reflect on their continuing learning and the ability to recognise how they are progressing towards achieving their learning objectives. Evidence can be gathered from Design and Technology files, observing products and conversations between the teacher and child.

Summative assessments are used to review children's ability and provide a best fit level. Through the teaching of designing, making and evaluating with interweaved technical knowledge, children have many opportunities throughout the academic year to demonstrate their capability in Design and Technology. Evidence can be gathered in teacher's mark books. Summative assessment should be recorded showing whether the individual children have not achieved, met or exceeded the learning objective/s and outcome/s.

#### **Impact**

The successful approach of our teachers having a shared intent and following a focused implementation of the curriculum at Horbury St Peter's and Clifton Primary School results in a unique, creative and imaginative Design and Technology education, that provides our children with the foundations and knowledge for understanding the surrounding designed world. During our children's Design and Technology education we believe that:

- They will now more, remember more and understand more about Design and Technology

- They will develop skills and attributes they can use beyond school and into adulthood
- The large majority will achieve age related expectation in Design and Technology

### **How we monitor the impact**

The monitoring of the standards of the children's work and the quality of teaching in Design and Technology is the responsibility of the subject leader. The subject leader will review planning annually in light of current developments in the curriculum to provide a considered direction for this subject in school. They will also carry out regular: work scrutiny, class observations and pupil voice activities throughout the academic year.

#### **4. Equal Opportunity**

In our school, we are committed to providing a teaching environment conducive to learning. Each child is valued, respected and challenged regardless of ability, race, gender, religion, social background, culture or disability. Pupils with special needs should be considered when planning units of work to provide appropriate differentiation for both more and less abled children. Steps should be taken to provide opportunities to address some of the gender stereotypes children may have. Therefore, teachers should ensure that all children irrespective of gender experience all activities, tools and materials.

#### **5. Inclusion of Children with SEN**

In our school, we aim to provide a supportive and flexible atmosphere in which all children are enabled to achieve success. This demands that skills required for the task are appropriate for the child. We must be aware of the difficulties such children may experience, provide appropriate resources and be flexible in our approach and expectations, particularly in recording.

#### **6. Safety in Design and Technology Activities**

We accept that we must all plan safe lessons for Design and Technology in our school and therefore the safety of the children is the responsibility of the class teacher. All of our children are made aware of the safe use and correct procedure involved when using tools and equipment in a learning environment. They are aware of the need for personal safety and the safety of others during their lessons. Both the teachers and children recognise the importance of following proper procedures for food safety and hygiene. The guidelines for safe food handling are in school along with the manual on Health and Safety. A list of children with specific allergies is available from the office and is on display in the Staffroom. Teachers should familiarise themselves with this and not use foods such as nuts due to the fact that we are a nut free school. Staff should also be sensitive to any cultural food taboos of children within their class.

Throughout lessons we encourage the children to reflect on safety issues themselves to help reinforce teacher direction.

## **7. Role of the Coordinating Team**

### **Subject Leader**

- To demonstrate good teaching practise in Design and Technology
- To monitor standards of children's work and the quality of teaching in Design and Technology throughout the academic year
- To review and evaluate planning, policy and progression annually
- To create an action plan with regular review

### **Training**

- To provide support and training for teachers in school
- To provide new and relevant information to teachers on resources and new schemes
- To attend courses

Signed: Miss M Allatt

Date: October 2020

To be reviewed: September 2022