

# **Winnington Park Primary School and Nursery**

## **Design Technology Policy**



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### **Our School Vision:**

Our vision is of a community whose members: children, parents, teachers and staff work collaboratively towards achieving an exciting and inclusive school, with high expectations and standards for all, within a happy, caring and secure environment.

### **Our Curriculum Vision**

At Winnington Park Community Primary School and Nursery we aim to offer a creative and inclusive Curriculum which inspires, engages and challenges and in which children are partners in their own learning.

### **Curriculum Intent**

We ensure that children are given opportunities to widen their knowledge and understanding of the world and learn and apply skills which will make them successful learners for life as well as enhancing their spiritual, moral, social and cultural development. We teach the knowledge and skills by following our schools knowledge and skills progression document. Children will become confident, independent and resilient learners who are willing to take risks. They will have high aspirations and be proud of their achievements. We aim to give everyone the opportunity to fulfil their highest potential, both academically and in respect of their wider interests and talents.

### **Implementation**

Our children learn through a creative and skills- based curriculum. We endeavour to engage our children and completely immerse them in their learning to become lifelong learners. In Key Stage 1 and Key Stage 2, each term's topic is based on either a History, Geography or Science focus and where appropriate this is linked to their DT topic.

We celebrate and value all subjects and provide opportunities to apply and practice key skills in all areas of learning. We have high expectations of achievement, progress, behaviour and presentation. Our children enjoy developing their learning through enhanced projects such as writing and reading weeks, art workshops, trips and residential.

You can find out the curriculum coverage for each year on your child's class page on this website.

### **Impact**

Well prepared children ready for the next stage of learning and life – happy and engaged.

Evidenced through - pupil voice, school council, pupil and parent questionnaires, worry boxes, class books, displays, work books, photos, website, learning journeys, charities, social media, community links, class assemblies, trips, visitors to school, welcoming new pupils.

### **Design and Technology Vision Statement**

The creative curriculum at Winnington Park defines the Arts as creative and imaginative activity through drama, dance, music, visual art and Design Technology. Through the arts, we give children a range of experiences to captivate and motivate them, allowing them to creatively explore new ideas. Children with a range of abilities and needs have the opportunity

to creatively express their ideas and emotions, and in turn progress both personally and academically.

### **Rationale of Design and Technology**

Design and technology prepares children to take part in the development of tomorrow's rapidly changing world. Creative thinking encourages children to make positive changes to their quality of life. The subject encourages children to become autonomous and creative problem-solvers, both as individuals and as part of a team. It enables them to identify needs and opportunities and to respond by developing ideas and even making products and systems. Through the study of design and technology they combine practical skills with an understanding of aesthetic, social and environmental issues, as well as functions and industrial practices. This allows them to reflect on and evaluate present and past design and technology, its uses and its impacts. Design and technology helps all children to become discriminating and informed consumers and potential innovators.

### **Aims and Objectives**

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.

It is intended that by the end of KS2, the pupils in our school will have taken part in a variety of activities which will enable them to achieve the following objectives:

- To have worked with a range of materials and equipment
- To have an understanding of how things work through the skills of investigating, disassembling and evaluating
- To understand the behaviour of structures
- To use appropriate vocabulary
- To have an appreciation of the work of distinguished engineers and technologists and the historical development of familiar products.
- To be able to research information from a variety of sources and apply ICT where appropriate
- To evaluate their own work
- To use a variety of ways to communicate ideas
- To build on previous knowledge, experience and skills in other subjects, as part of our cross curricular approach to learning
- To work economically and safely, being aware of health and safety hazards

### **Subject Content**

#### **Foundation Stage**

Children will use what they have learnt about media and materials in original ways, thinking about uses and purposes. They will represent their own ideas, thoughts and feelings through design and technology in the environment.

## **Key Stage 1**

### **Design**

- design purposeful, functional, appealing products for themselves and other users based on design criteria
- generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology

### **Make**

- select from and use a range of tools and equipment to perform practical tasks for example cutting, shaping, joining and finishing
- select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

### **Evaluate**

- explore and evaluate a range of existing products
- evaluate their ideas and products against design criteria

### **Technical Knowledge**

- build structures, exploring how they can be made stronger, stiffer and more
- explore and use mechanisms for example, levers, sliders, wheels and axles, in their products.

### **Cooking & Nutrition**

- use the basic principles of a healthy and varied diet to prepare dishes
- understand where food comes from.

## **Key Stage 2**

### **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 and exploded 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

## **Technological Knowledge**

- apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- understand and use mechanical systems (for example, gears, pulleys, cams, levers and linkages) in their products
- understand and use electrical systems (for example, series circuits incorporating switches, bulbs, buzzers and motors) in their products
- apply their understanding of computing to programme, monitor and control their products.

## **Cooking & Nutrition**

- understand and apply the principles of a healthy and varied diet
- cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet
- understand the source, seasonality and characteristics of a broad range of ingredients

## **Teaching, Learning and Planning**

The school uses a number of teaching and learning styles in Design and Technology lessons. The main aim is to develop the children's knowledge, skills and understanding in Design and Technology. Children are encouraged to apply their knowledge and understanding when developing ideas, planning and making products and evaluating them. We are able to do this through whole class teaching, group teaching and individual activities. Children are given opportunities to work individually and collaborate with others. Groups are encouraged to listen to other pupils ideas and treat them with respect. Pupils evaluate products, their own work and that of others. They have access to a wide range of resources and materials including ICT.

Teachers' planning for Year 1 to 6 is based on, and will meet the requirements of, the National Curriculum. Nursery and Reception children will be supported through the Early Years curriculum.

## **Assessment, Record Keeping & Reporting**

Assessment forms an important part of the teaching and learning process and is carried out in a variety of ways.

The nature of assessment depends on the type of activity or lesson and the age or ability of the child. The assessment methods can include:

- Observing children working, individually or in groups

- Questioning and listening to children
- Assessing final piece of work
- Teaching observations

### **Equal Opportunities and Inclusion**

Equality of opportunity at Winnington Park Primary School and Nursery means that all children, taking account of gender, age, ability, disability, ethnic origin, faith, culture, social circumstances and sexual orientation have full access to all the curricular, pastoral and social opportunities offered by the school.

We promote spiritual development

Offering opportunities to explore spiritual dimension.

Look at different artists work.

Discussing the meaning of different pieces of art.

Visit galleries and museums to review and evaluate.

### **SMSC and British Values**

#### **We promote moral development**

To look at emotions that are evoked by different art / visual images/sculptures.

To explore inner feelings and express them by painting, sculpture and design and technology.

#### **We promote social development**

Sharing of resources.

To explore as a powerful social tool.

To discuss / explore social conflict.

#### **We promote cultural development**

Look at a wide range of creative work from around the world.

To evaluate and become critically aware.

Participate in visits to theatres, arts festivals and galleries.

### **Health and Safety**

Teachers are responsible for the health and safety of the children in their class. Classroom activities should be as safe as possible and children should be taught to use tools and equipment properly. Teachers should refer to the Risk Assessments and school Health & Safety policy for direction, if necessary.

### **Resources**

Specialist resources are kept in the D&T curriculum area. There are a range of resources and tools available to the children, but some selected activities will need the support and supervision of an adult. In these circumstances it will be the responsibility of the class teacher/coordinator to ensure that the role they are expecting, and the outcome, is explained.