

# Rook's Nest Academy



## Design Technology Policy

### Rook's Nest Academy

Our Design Technology curriculum is supported by the Learning Challenge Curriculum. For half a term each year the whole focus of learning will be based around DT. During this time all National Curriculum coverage for each year group will be met. Half-term projects will focus around a text such as Fantastic Mr Fox or Macbeth. This will be the key driver for a range of Design Technology projects. All pupils will take part in designing, making and evaluating a different activities . These include projects involving mechanisms such as levers or designing structures. Each Year group will spend part of the focus half term on food technology.

### Design Technology Policy

#### Aims:

- To make the learning of Design Technology relevant and purposeful.
- 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.

### KS1 Objectives

#### 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 stable
- explore and use mechanisms [for example, levers, sliders, wheels and axles] in their products

## **KS2 Objectives**

### **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.

## **TECHNICAL KNOWLEDGE**

- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]
- Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
- Apply their understanding of computing to program, monitor and control their products

## **The Foundation Stage:**

We encourage creative work in our expanding Reception class, as this is part of the Foundation Stage Curriculum. We relate the creative development of the children to the objectives set out in the Foundation Stage Assessment, which underpin the curriculum planning.

The children's learning includes art, music, dance, role-play and imaginative play. The range of experience encourages children to make connections between one area of learning and another and so extends their understanding.

Setting the children's learning in a brand new Foundation Stage area, we provide a rich environment in which we encourage and value creativity. Children experience a wide range of activities that they respond to, using the various senses. The activities that they take part in are imaginative and enjoyable.

## **Teaching and Learning:**

Design Technology activities are taught in a variety of ways across Rook's Nest Academy. Mainly this will be through the Learning Challenge Curriculum focus half term. However, Design Technology has relevance across the curriculum and links with other subjects throughout the school (particularly food technology). Our Rook's Nest Academy long-term planning grids show how DT will be taught.

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## **Breadth and balance:**

We will ensure that in any key stage the activities of drawing, painting, printmaking, collage, sculpture, textiles, 3D design and digital media are covered. We will ensure that pupils will develop their creative ideas in both expressive and craft design contexts and that their work will be informed by visual investigation from direct observation and other reference materials.

The study of the work of artists, craftspeople and designers from the locality, the past and present and a variety of cultures will be an integral part of practical art and design activities.

## **EXPECTATIONS:**

By the end of Key Stage 1, the performance of the great majority of the pupils should be within the National Expectations for their age group with a smaller group falling below National Expectation and another group at Greater Depth

By the end of Key Stage 2, the performance of the great majority of the pupils should be within the National Expectations for their age group with a smaller group falling below National Expectation and another group at Greater Depth

## **Assessment and recording:**

Assessment is based on a combination of teacher assessment, peer assessment and pupil self-assessment. At the end of each focus term, an assessment sheet is completed. This sheet identifies children working at Greater Depth and Below National Expectation. The DT Coordinator will add photographs of the children's projects to the school website enabling parents to see children's work.

Curriculum plans, samples of pupils' work, classroom displays and discussions with staff will be used by the Design Technology Leader to evaluate the quality of the art and design curriculum in the school.

## **Inclusion:**

We recognise the fact that we have children of differing ability in all our classes, and so we provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies that are essential to developing a more inclusive curriculum:

## **The role of parents and carers:**

Parents and carers are encouraged to be involved with their pupils' learning through looking at Design Technology displays, and viewing and commenting on any work that has been added to Rook's Nest Academy school website. Each practical homework half term a task will be DT based.

## **Health and safety**

Health and safety is important, particularly when working with tools, equipment and resources. Children should be given suitable instruction on the operation of all equipment before being allowed to work with it. Children need to be taught how to

- use tools and equipment correctly
- recognise hazards and risk control.

## **Children should be**

- supervised in their use of equipment at all times.
- taught to respect the equipment they are using and to keep it stored safely while not in use.
- taught to recognise and consider hazards and risks and to take action to control these risks, having followed simple instructions.

## **Food Hygiene**

- Pupils and staff will take care to undertake appropriate hand washing and other hygiene related activities prior to preparing food.
- Pupils and staff working with food must wear aprons designated for cooking.
- Equipment washed up in the sink in the kitchen and replaced after use.
- Hair tied back and sleeves rolled up.

## **Glue Guns**

- Key Stage 2 children should use low temperature glue guns under supervision in a designated work area, wearing safety goggles.

## **6 Craft Knives/Saws**

- Key Stage 2 children may use cutting equipment under supervision, using a cutting mat and wearing safety goggles.

## **Sawing**

- Bench hooks and clamps must be used when sawing any material.

## **Risk Assessments**

Generic Risk assessments have been completed by the subject leader: food Hygiene, the use of Glue Guns, and the use of cutting tools. These are stored under DT in the Subject Coordinator's Folder on the main computer drive.

The list of generic risk assessment and their contents may be subject to change at any time, as determined by the subject leader, and should be checked every time an activity is planned.

Additional risk assessments may be written for SEND and where appropriate for individual pupils.

