Whitehall Nursery and Infant School

Design and Technology Policy

Rationale

'Design and Technology is about making things that people want and that work well. Creating these things is hugely exciting: it is an inventive, fun activity.'
James Dyson

Design and Technology is an inspiring, rigorous and practical subject. This subject prepares children to actively participate in the development of tomorrow's rapidly changing world. Design and Technology allows children to work individually and as part of a team and encourages them to become creative problem solvers. Through the acquisition of a broad subject knowledge the disciplines of mathematics, science, engineering, computing and art will be drawn upon. Students will learn how to become resourceful, innovative, capable and able to take calculated risk. They will develop an understanding of social, aesthetic and environmental issues along with functions and industrial practices. They will then be able to evaluate and reflect on past and present uses of design and technology, its uses and impact. Quality teaching of Design and technology will help all children to become discriminating and informed consumers and potential innovators.

Aims and Objectives

At Whitehall Nursery and Infant School our aims when teaching Design and Technology are that all children irrespective of race, gender or ability will:

- Participate successfully in an increasingly technological world.
- Develop a range of expertise including creative, technical and practical to enable them to confidently perform everyday tasks.
- Use their broad knowledge, skills and understanding to design and then make high quality prototypes and products for a range of purposes and consumers.
- Reflect on their own creations and those of others using strategical critiques and evaluation.
- Learn how to cook while understanding and applying the principles of nutrition.

In our Foundation Stage, we provide opportunities for children to:

- Develop their natural curiosity and interest in the world by talking, asking questions, and investigating products that are familiar.

- Use a range of construction kits for a multitude of purposes exploring building, joining, assembly, and shaping to convey desired outcomes while developing confidence and enthusiasm.
- Extend vocabulary through conversation detailing the design and construction process.

Strategies for the teaching of Design and Technology:

At Whitehall, we have recently adopted the 'Cornerstones' curriculum which we will use to integrate a range of foundation subjects including Design and Technology. The use of Cornerstones will be used throughout the school from Nursery to Year 2. This will allow for continuity across the subject and allow students to continually develop their skills and the breadth of their subject knowledge. All year group teachers have chosen topics to focus on and these will change either termly or half termly depending on the length of the topic. It will cover all the aims in relation to the Early Years Foundation Stage and the National Curriculum for Design and Technology. Cornerstones uses an exciting thematic approach which ensures that Design and Technology will be taught at least weekly and the results will show progression throughout the topic.

In both Early Years and Key Stage One homework will be used to support their learning both at home and in the classroom. This may include bringing in artefacts from home or simply bringing in junk modelling materials from a nature walk.

Achievements will be celebrated by both children and staff through the use of circle time and displays both in the classroom and corridors.

Ensuring continuity in Design and Technology

As we are now using the 'Cornerstones' framework this will allow us to choose topics which are a best match for our students and ensure that their skills and experiences are built upon from Nursery to Year 2.

The role of the Design and Technology co-ordinator to ensure continuity is to:

- Discuss topics chosen with class teachers and year group leaders.
- Demonstrate the necessary skills in Design and Technology.
- Effectively communicate with class teachers, year group leaders and the senior management team to review and monitor topics.
- Support all staff to develop their subject knowledge and the teaching of Design and Technology using appropriate techniques and training.
- To keep up to date with new initiatives in Design and Technology and feedback to staff where appropriate through the use of staff meetings, briefings, letters or email.
- Ensure the maintenance of a portfolio evidencing planning, assessment and children's work to show the creative processes of designing and making with clear links to progression.

Design and Technology and Inclusion

Extra support and guidance may be required for children who have a special educational need or disability as well as a student who has been identified as gifted and talented within this area of learning. They include:

- Students with learning difficulties who may need extra support with reading and writing but may have well developed practical skills when designing and making.
- Students who display difficulties with practical assignments and may therefore require additional support and further opportunities to practice.
- Students with an exceptional ability and flair for Design and Technology where assignments may be extended using additional and more demanding assignments.

Learning Support Assistants and Classroom Assistants will be assigned tasks to help and support students by:

- Supervising and extending the learning of students during small group activities.
- Preparing and organising materials.
- Providing support and guidance to staff and children and demonstrate specialist skills.

Assessment for Learning

The feedback that is given to children about their own progress throughout Design and Technology will be achieved through the effective marking of work and discussion. This is based on the expectations of the National Curriculum Design and Technology objectives in years One and Two and the Early Years Foundation Stage/ Development matters bands and Early Learning Goals from the Expressive Arts and Design area of study in Nursery and Reception.

Effective marking will be used as stated above and aims to be:

- Completed during lessons through discussion between teachers and students.
- Positive and constructive.
- Give clear aims for next steps and progression.
- Given on written work and design drawings.

Resourcing

The subject leader has the responsibility for ensuring that class teachers have access to the resources required to complete topics as necessary. This includes

- A selection of tools that may be required to enable children to cut, join and attach including wooden dowels, straws, scissors, PVA glue etc.
- Materials for modelling including clay, play doh and mod roc.
- Appropriate construction kits as and where they are applicable.

- A variety of paper, card and other junk modelling materials such as cardboard tubes and plastic bottles.

Health and Safety

It is imperative that Health and Safety procedures are followed during Design and Technology lessons and that precautions are discussed and risk assessed as appropriate. This ensures that risks are kept to a minimum and allows for a fun and exciting experience for all children and staff.

- Class teachers must clearly demonstrate to children how to use tools safely and in a purposeful manner which reflects the intended outcome.
- All materials and tools must be stored safely, tidily and securely.
- Students must be taught to recognise the potential dangers and risks in a wide range of situations, environments, activities and products.
- Correct hygiene procedures must be followed such as hand washing, removal of jewellery, tying long hair back and wearing protective clothing such as safety goggles and or aprons.