**Design and Technology Policy**



**Rationale**

***At Horwich Parish CE School we follow* Kapow *and we believe that 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 eventually making products and systems.***

**Aims**

* To develop imaginative thinking in children and to enable them to talk about what they like and dislike when designing and making.
* To enable children to talk about how things work, and to draw and model their ideas.
* To encourage children to select appropriate tools and techniques for making a product, whilst following safe procedures.
* To explore attitudes towards the world and how we live and work within it.
* To develop an understanding of technological processes, products, and their manufacture, and their contribution to our society.
* To foster enjoyment, satisfaction and purpose in designing and making.

**Implementation of Policy**

At Horwich Parish CE Schoolthrough the study of Design and Technology children combine practical skills with an understanding of aesthetic, social and environmental issues. 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.

At Horwich Parish CE Schoolchildren learn to produce practical solutions to real problems. Children develop technical understanding and making skills, learn about design methods and investigate their environment and the materials around them.

At Horwich Parish CE Schoolwe use a variety of teaching and learning styles in Design and Technology lessons. The principal aim is to develop children’s knowledge, skills and understanding in Design and Technology, and teachers encourage children to use their knowledge and understanding when developing ideas, planning and making products and evaluating them.

At Horwich Parish CE Schoolwe use a balance of whole-class teaching and individual/group activities, giving children the opportunity to both work on their own and to collaborate with others.

At Horwich Parish CE Schoolchildren are encouraged to listen to the ideas of others, and treat them with respect, to critically evaluate existing products, both their own work and those of others. They have the opportunity to use a wide range of materials and resources, including ICT.

**Knowledge and Understanding**

At Horwich Parish CE Schoolall children are encouraged to:

* Generate ideas through discussion and experimentation.
* Extend knowledge and understanding of a wide range of materials, including construction kits, textiles, food, wood, plastic, metals and reclaimed/junk materials.
* Work within groups and as individuals.
* Make use of drawings and models to communicate their ideas.
* Evaluate their work and identify strengths and weaknesses in a positive way.
* Experiment with simple components, mechanisms and structures.
* Learn about health and safety aspects when working with a variety of materials and tools.
* Consider risk to themselves and to others and build up a knowledge and understanding of the dangers inherent in certain products and tools.
* Experience Design and Technology through off-site visits, where practical, in order to see technology used in a real environment

**Planning**

At Horwich Parish CE Schoolplanning is the responsibility of the class teacher. The scheme of work contains suggested activities and skills to ensure progression and continuity throughout the school.

In planning, the delivery of the curriculum will be differentiated to allow for children of all abilities.

The scheme of work is set out in three main sections:

1. Investigate, disassemble and evaluate activities.
2. Focused practical tasks.
3. Design and make projects.

**Foundation Stage and Key Stage 1**

At Horwich Parish CE Schoolduring Key Stage 1 the children learn how to think imaginatively and talk about what they like and dislike when designing and making. They build on their early childhood experiences of investigating objects around them. They explore how familiar things work and talk about, draw and model their ideas. They learn how to design and make safely and could start to use ICT as part of their designing and making.

**Key Stage 2**

At Horwich Parish CE Schoolduring Key Stage 2 children work on their own and as part of a team on a range of designing and making activities. They think about what products are used for and the needs of the people who use them. They plan what has to be done and identify what works well and what could be improved in their own and other people’s designs. They draw on knowledge and understanding from other areas of the curriculum and use computers in a range of ways.

In Foundation, Key Stage 1 and Key Stage 2 children will:

* Develop knowledge, skills and understanding.
* Use developing, planning and communicating ideas.
* Gain a knowledge and understanding of materials and components.
* Carry out focused practical tasks that develop a range of techniques, skills, processes and knowledge.
* Design and make assignments using a range of materials, including electrical and mechanical components, food, mouldable materials, stiff and flexible sheet materials, and textiles.
* Investigate and evaluate a range of familiar products, thinking about how they work, how they are used and the views of the people who use them.
* Allow constructive conversation and language interaction between.

**Skills**

At Horwich Parish CE Schoolchildren learn how to draw on a developing repertoire of skills and knowledge, which will include:

* Learning how to work independently and collaboratively.
* Developing, planning and communicating ideas.
* Working with tools, equipment, materials and components to make quality products.
* Evaluating processes and products.
* Developing knowledge and understanding of materials and components.
* Learning the importance of health and safety.

**The Design and Technology Leader will:**

* Monitor Design and Technology within the school e.g. through curriculum walks.
* Keep up to date with new developments and inform staff.
* Encourage other members of staff in their Design and Technology teaching and give support where appropriate.
* Ensure that Design and Technology resources are available and appropriate to the needs of the staff.
* Ensure that Design and Technology keeps an appropriate profile within the school, through displays etc. (e.g. by carrying out a curriculum walk every term and reporting findings to teachers and by updating the school Design and Technology display every term, reflecting progression throughout the school).
* Keep a portfolio for Design and Technology that will include photographs of children at work, curriculum walk reports, examples of planning and examples of children’s work.
* Audit resources regularly and take overall responsibility for equipment and resources.

**Health and Safety**

At Horwich Parish CE Schoolchildren will be given suitable instruction on the operation of all equipment before being allowed to work with it.

Children should be strictly supervised in their use of equipment at all times.

Children should be taught to respect the equipment they are using and to keep it stored safely while not in use.

Children should be taught to recognise and consider hazards and risks and to take action to control these risks, having followed simple instructions.

**Food Hygiene**

Children and staff will take care to undertake appropriate hand washing and other hygiene related activities prior to preparing food.

Children and staff working with food must wear aprons designated for cooking.

Painting equipment must not be washed up or used in the sink in the medical room.

All jewellery should be removed and hair tied back.

**Glue Guns**

At Horwich Parish CE Schoollow temperature glue guns should only be used by an adult in Key Stage One and The Foundation Stage unless there is one-to-one supervision for a child.

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

**Craft Knives**

At Horwich Parish CE Schoolcraft knives, quick cutters and rotary cutters should only be used by an adult/teacher in Key Stage One and the Foundation Stage.

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

**Sawing**

At Horwich Parish CE Schoolbench hooks and clamps must be used when sawing any material. Safety goggles must be worn and any loose items of clothing/hair must be tucked in.

**More Able Learners**

More able learners will be identified as part of our formative and summative assessment procedures. We will provide for their needs through a framework of high quality first teaching which focuses on ensuring the children are challenged appropriately. In addition, we will focus on developing their learning behaviours, including, greater reflection, problem solving and enquiry, making connections, higher order thinking skills and independent learning. The progress of more able learners will be rigorously tracked to ensure more able children reach their full potential.

**Equal Opportunities**

At Horwich Parish CE Schoolall children, regardless of gender, race or learning needs will be given equal access to the Design and Technology curriculum.

The Design and Technology curriculum will be differentiated according to the needs of the children. If a child needs specialist hardware/peripherals in order to access the curriculum the school will source the appropriate equipment.

If a child is statemented and not able to access the curriculum at the same level as his/her peers then provision will be made for the child to access the curriculum at their own level. If a child is identified as having a gift or talent in this curriculum area, they will be challenged in their learning.

 **Monitoring and review:**

## At Horwich Parish CE School the monitoring of the standards of children’s work and of the quality of teaching in Design and Technology is the responsibility of the Design and Technology subject leader. The Design and Technology subject leader provides the SLT with information through reviewing planning and topic coverage termly and reviewing the progress towards the targets in the school improvement plan twice a year. Samples of work are photographed or collected to build a portfolio of work in Design and Technology.

**Disability Equality Impact Assessment**

This policy has been written with reference to and in consideration of the school’s Disability Equality Scheme. Assessment will include consideration of issues identified by the involvement of disabled children, staff and parents and any information the school holds on disabled children, staff and parents.