Shadsworth Junior School

Design and Technology Policy

Approved by:	Jackie Gallagher	**Date:**	
Last reviewed on:			
Next review due by:			

Subject Overview

At Shadsworth Junior School we aim to provide all children with learning opportunities to engage in Design and Technology (DT). Design and Technology is an inspiring, rigorous and practical subject. At Shadsworth Junior School, we encourage children to think and intervene creatively to solve problems both as individuals and as members of a team. Children are encouraged to use their creativity and imagination, to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values.

At Shadsworth Junior School, we encourage children to develop their STEM skills and promote the use of mathematics, science, engineering, computing and art skills. The children are also given opportunities to reflect upon and evaluate past and present design technology. Children are encouraged to take risks and are challenged to think about how they might change the world. Through real, relevant problems, within a variety of contexts and projects, all children have the opportunity to explore systems and gain a wider understanding of how technology has adapted over time and its importance within today's world.

This policy provides a framework which both teaching and non-teaching staff follow which gives guidance on planning, teaching and assessment. It has been developed through a process of consultation with school staff and governors.

Pupils who follow our DT curriculum at Shadsworth Junior School will:

- Develop their mastery of designing and making techniques.
- Investigate how key events and individuals have influenced DT and helped to change the world.
- Learn about inventors, designers, engineers, chefs and manufactures who have developed ground breaking products.

Aims

At Shadsworth Junior School we aim to give pupils:

• A knowledge and understanding of materials, components, controls and structures;

• Practical tasks to develop skills using tools and handling materials;

• The opportunity to investigate, disassemble and evaluate a range of simple products;

• The opportunity to design and make real world objects;

• The skills to evaluate and modify existing systems to improve their functionality;

• To understand how food is prepared safely;

• To enjoy food and begin to work creatively with different ingredients;

• A safe working environment (in accordance with the guidance given in "Make it Safe");

• We aim to develop children's ability and confidence in formulating ideas in the designing, making and evaluating process.

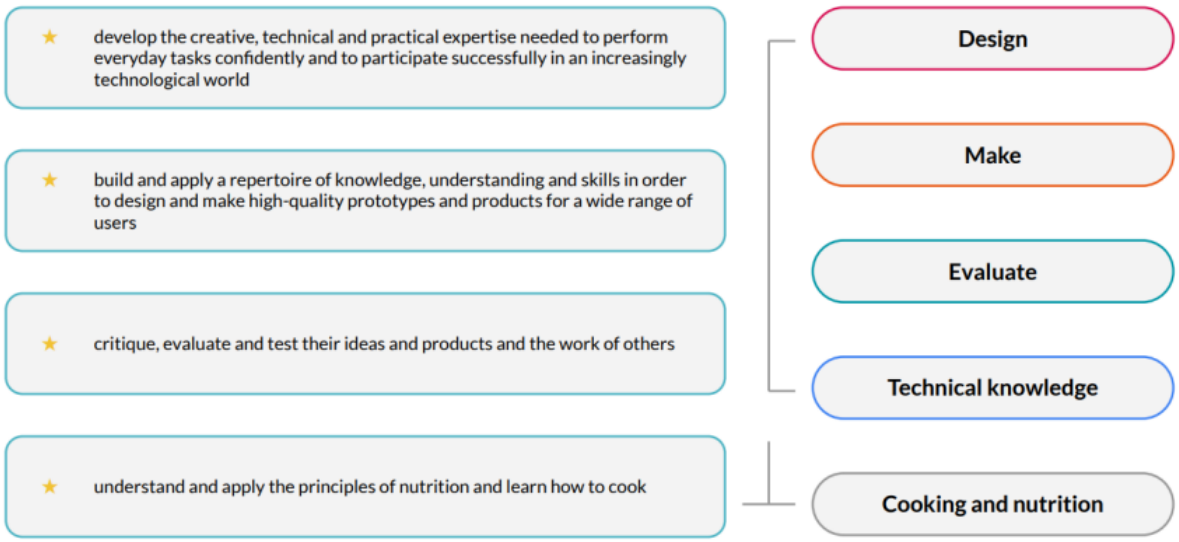
Curriculum

At Shadsworth Junior School, we provide a broad and balanced curriculum that caters for all abilities as well as the physical, emotional and intellectual needs of our children. The children participate in three DT topics each year through following the KAPOW scheme of work which fulfils the statutory requirements outlined in the National Curriculum (2014). We believe that this scheme allows scope for investigation, design and original project work, whilst using increasingly challenging technical settings, which is ideal for our children's needs.

The curriculum is organised into six key areas;

- Structures
- Mechanisms
- Textiles
- Electrical systems
- Digital world
- Cooking and nutrition

There are five key strands that run throughout the scheme.



A key element for us is the emphasis placed on the identification and utilisation of cross-curricular links in order for learning to become more meaningful and enrich the learning experience for the children. Therefore wherever possible, we link the units to topics taught within each year group. Design and Technology is taught by our PPA teacher and the scheme of work enables effective planning ensuring a balanced coverage. Each unit contains a scheme of work as well as extra skills and information sheets for both staff and pupils. The scheme of work also shows what resources are required and makes useful links with computing and STEM.

Curriculum Coverage – Progression through the year groups

At Shadsworth Junior School our DT curriculum is designed to engage, inspire and challenge children, equipping them with the knowledge and skills to participate in, experiment with, invent and create their own designs and products. Children will be empowered to think creatively and critically.

The scheme of work is matched to pupil's abilities and ensures progression and continuity throughout the school. Our own progression of skills document then supports our curriculum development further, showing how structures, mechanisms, textiles, electrical systems, digital world and cooking and nutrition are developed over time.

Throughout their time at Shadsworth Junior School, children are introduced to a range of works and develop knowledge of the styles and vocabulary used by famous designers and inventors. This enables the children to communicate what they see, feel and think through applying different uses and processes. Children are encouraged to express their own ideas, whilst being inspired by the work of designers, chefs, engineers, manufacturers and inventors. Each child is treated as a designer, valuing individual interpretation and opinion. DT at Shadsworth Junior School is viewed as a personal, creative journey, where consistent progression is achieved and celebrated.

Key Stage 2

Pupils will be taught:

- To develop, plan and communicate ideas.
- To work with tools, equipment, materials and components to make quality products.
- Evaluate processes and products

Diversity

We believe that the DT curriculum should be representative and inclusive for all learners, and reflect the make-up of British society today. It should take a multi-perspective approach to all units of work.

Our curriculum is designed to study DT from different periods in time, DT from different cultures and products produced from a range of male and female designers, engineers, chefs and inventors around the world.

Teaching and Learning

Our school uses a variety of teaching and learning styles in DT lessons. Our main aim is to develop the children's knowledge, skills and understanding in DT, and we use a variety of teaching and learning styles in order to achieve this. Pupils are given the opportunity to work within groups and on an individual basis and work is mainly practical.

We believe in whole-class teaching methods and combine these with enquiry-based research activities.

We believe our children learn best when:

- They have access to, and are able to handle artefacts
- They go on educational visits and places of interest
- They have access to secondary sources such as books and photographs
- They are shown, or use independently, resources from the internet and videos
- They are able to use non-fiction books and ICT for research
- They are provided with opportunities to work independently or collaboratively

SEND Provision

We believe that creating a positive, supportive learning environment for all pupils without exception is key to DT success.

We recognise that we have children of differing abilities 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 such as adaptive teaching, expected outcomes and/or support from peers or adults.

For our SEND pupils, class teachers and subjects leaders will work closely with our SEND Coordinator to ensure that all SEND pupils are catered for appropriately during DT lessons.

Assessment and Recording

At Shadsworth Junior School, assessment is an integral part of the teaching process. Assessment is used to inform planning and to adapt our teaching. Children's existing knowledge of the topic and the key related knowledge from previous year groups, is checked at the beginning of each unit. Children's knowledge and skills are continually assessed and developed by the teacher during lessons, in accordance with the lesson's success criteria. Knowledge organisers are used for every topic and we devise our own quiz at the end of each unit based on what the pupils have learnt. The score the children get will be used in association with teacher assessment to grade each pupil with a working below year group expectation, working at the expected standard or working above the expected standard. This is recorded within a whole school spreadsheet designed for foundation subjects.

Monitoring

Monitoring takes place regularly through sampling children's work; teacher's planning, through book scrutiny, talking to the children and lesson observations. We also plan for a Deep Dive Monitoring Day regularly to ensure that subject leaders have a current and up-to-date working knowledge of their subject across the school.

Leadership of DT

It is imperative that an outstanding subject leader takes a high level of control over their subject. The subject leader will monitor the teaching and learning of Design and Technology across the school; ensuring a high quality, broad and stimulating curriculum. A range of good-quality materials and tools will be maintained by the subject leader which will enable effective teaching.

Approximately three times per year, an Impact Statement will be prepared which details what are the intent/actions required for DT within a set time period. This is followed by implementing the actions needed before analysing the impact. This on-going action plan ensures the constant review of DT across all year groups.

Ambassadors

All classes have chosen pupils who have an interest and passion for DT. These pupils meet every half-term to discuss what is happening in DT and what will be happening which will then be fed back to every class.

Resources

We have a wide range of DT books and interactive boards to access the internet as a class and ensure our DT supplies are well stocked throughout the school. Visits are planned to enhance learning and give hands on activity. People with an interest, or expertise, in a particular topic or area of DT could be invited into school to work with the children.