

Stretton Handley CE (VC) Primary School DT Policy



At Stretton Handley CE (VC) Primary School we aim for our Design and Technology curriculum to be an inspiring, rigorous and practical experience for our pupils. Using creativity and imagination our pupils design, make and evaluate their products considering the needs of themselves and others. They acquire a broad range of practical skills whilst also consolidating skills taught in other subject areas such as Mathematics, Science, Computing and Art. Through our Design and Technology curriculum, pupils learn how to be innovative and enterprising citizens of the future.

At Stretton Handley CE (VC) Primary School, we are committed to providing all children with learning opportunities to engage in Design and Technology. This policy sets out a framework within which teaching and non-teaching staff can work, and give guidance on planning, teaching and assessment.

1.Aims

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

EYFS

We encourage the development of skills; knowledge and understanding that help Reception children make sense of their world as an integral part of their school experience. We relate this development to the objectives set out in the Early Learning Goals. This learning forms the foundations for later work in design and technology. These early experiences include asking questions about how things work, investigating and using a variety of construction kits, materials, tools and products, developing making skills and handling appropriate tools and construction materials safely and with increasing control. We plan according to the children's interests and provide an enabling environment offering a range of experiences that encourage exploration, observation, problem solving, critical thinking and discussion. These activities, indoors and outdoors, attract the children's interest and curiosity.

Key Stage One

The National Curriculum Programme of Study of Key Stage 1 focuses on developing the key skills and building on from the Early Learning Goals. Children will be taught the knowledge and skills needed to engage in an interactive process of designing and making; applying what they have learnt to create an end project. Creative and practical activities will be planned and delivered through a range of relevant contexts, in order to support such application of knowledge and skill. Children will begin to create a simple design criteria, communicating their ideas through discussion and drawing.

Pupils should be taught:

- Design purposeful, functional, appealing products for themselves and other users based on design criteria
- Generate, develop, model and communicate their ideas through taking, drawing, templates, mock-ups and where appropriate, information and communication technology
- Select from and use a range of tools to perform practical tools
- Select from and use a wide range of materials and components, including construction materials, textiles and ingredients according to their characteristics
- Explore and evaluate a range of existing products
- Evaluate their ideas and products against design criteria
- Build structures explaining how they can be made stronger, stiffer and more stable
- Explore and use mechanisms in their products
- Use the basic principles of a healthy and varied diet to prepare dishes
- Understand where food comes from

Key stage 2

The National Curriculum Programme of Study at Key Stage 2 aims to continue building on the Design and Technology skills and knowledge that has been acquired throughout Key Stage 1. Similarly to KS1, children will develop their knowledge and skills through relevant contexts. Children will design, make and evaluate projects based on consumer awareness; creating design specifications based on research of needs and requirements of a particular individual or group. Children will be encouraged to generate, develop and communicate their ideas through more sophisticated ways of planning such as; discussion, annotated sketches and prototypes. Evaluation of their own and existing products will have a bigger focus, as they use this to inform subsequent projects and learn about the impact of key designers, manufactures and chefs, on the modern world.

Pupils should be taught:

- How to use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose and aimed at particular individuals or groups.
- How to generate, develop and model ideas through discussion, annotated sketches, cross sectional and exploded diagrams, prototypes, pattern pieces and computer aided design.
- To select and use a wide range of tools and equipment to perform practical tasks accurately.
- To select from and use a wide range of materials and components, including construction materials, textiles and ingredients according to their functional properties and aesthetics.
- To investigate and analyse a range of existing products.
- To evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.
- To understand how key individuals and events in D&T have helped shape the World.
- How to apply their understanding of how to stiffen, strengthen and reinforce more complex structures.
- To understand and use mechanical systems in their products.
- To understand and use electrical systems in their products.
- To apply their understanding of computing to program, monitor and control their products.

- To understand and apply the principles of a healthy and varied diet.
- How to prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.
- To understand seasonality and know when where and how a range of products are grown, reared, caught and processed.

2. Implementation- Teaching and Learning

The school uses 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. Teachers ensure that the children apply their knowledge and understanding when developing ideas, planning and making products, and then evaluating them. We do this through a mixture of whole-class teaching and individual or group activities. Within lessons, we give children the opportunity both to work on their own and to collaborate with others, listening to other children's ideas and treating these with respect. Children critically evaluate existing products, their own work and that of others. They have the opportunity to use a wide range of materials and resources, including ICT. In all classes there are children of differing ability. We recognise this fact and 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.

Progression

A DT Progression overview is used from Reception- Year 6. Teachers use this ladder to ensure activities build on pupil's prior learning. Skills ladders ensure that pupil's skills are constantly challenged as they move up through school.

Assessment and Feedback

At Stretton Handley CE (VC) Primary School, assessment is an integral part of the teaching process. Assessment is used to inform planning and to facilitate differentiation. Feedback is given to the children, and marking work will be guided by the school's Marking Policy. Assessment in Design Technology is ongoing and formative with a variety of strategies used such as observation, discussion, marking and questioning. Pupils will be assessed against the learning outcomes. The learning outcomes in each unit show how children might demonstrate what they have learnt. Pupils are actively involved in evaluating their work and thinking about possible improvements. Evidence such as photographs for these assessments will be gathered informally throughout the year on elements of designing and Information from assessment is used to inform the teacher's short-term planning and to help the teacher identify ways forward for the pupils learning. An essential part of our assessment is the involvement of the children, not only in developing their ability to evaluate designs and products of their own, but also in the value of their feedback on the units of work.

3. Impact

Through stimulating and engaging lessons, we endeavour to see an impact on the children's creativity and curiosity. Children will have a greater knowledge of design and manufacturing techniques as well as an improved understanding of the importance of evaluation in order to make improvements to products.

By the end of Key Stage 2, children leaving Stretton Handley CE Primary School are confident, innovative, enterprising and resourceful young people, with the relevant skills to face an increasingly technological world.

Resources

There is a selection of centrally-stored materials and tools to ensure that all children have the necessary resources to access the subject and to make informed choices. The DT budget covers the costs of materials and the replacement of tools, although we do occasionally ask children to bring some materials from home if they can.

Food Hygiene and Safety Issues

We enable pupils to have access to the full range of activities involved in learning Design and Technology. Where children are to participate in activities outside the classroom, for example in a museum or on a factory trip, we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all pupils. Teachers teach the safe use of tools and equipment and insist on good practice prior to starting the making part of a task. However, safety issues do arise when teaching this subject.

These include:

- The use of electrical equipment such as glue guns
- The handling of food stuffs
- The use of cooking appliances, including ovens and hobs
- Contact with sharp objects including wood, nails, needles, saws etc.
- Awareness of personal safety (jewellery, hair, eye protection) It is the duty of all staff to:
- Recognise and assess the hazards and risks to themselves and others when working with food and other materials
- Take action to control these risks and hazards
- Teachers should be aware of the following:
- Children must not use cooking appliances unless under direct supervision from a responsible adult. The portable oven may be used in an area away from the children or with a barrier between at the teacher's discretion
- Saws and other sharp objects (nails, needles, craft knives, etc) must be used under direct supervision. The teacher will make a judgement on the undertaking of activities involving sharp and/or potentially dangerous equipment depending on the age/ability of the children in his/her class. Some activities may be undertaken by an adult or in a small group or one to one situation as appropriate
- Perishable foodstuff must be stored sensibly and refrigerated if necessary. Care must be taken to ensure food is not used after the given sell by date
- Teachers and adult support staff must oversee that cupboards, table tops, cooker etc, are clean and in working order
- Children must wash their hands before and after any contact with food and other potentially harmful substances
- Teachers must take into account possible food allergies to food such as nuts and should be aware of the location of any medication for the allergy

Equality, Diversity and Inclusion

We aim to ensure that no pupil experiences harassment, less favourable treatment or discrimination within the learning environment because of their age; any disability they may have; their ethnicity, colour or national origin; their gender; their religion or beliefs. We value the diversity of individuals

within our school and do not discriminate against children because of 'differences'. We believe that all our children matter and we value their families too.

SEN/ Differentiation

As an inclusive school we recognise the need to tailor our approach to support children with special educational needs as well as those who are identified as gifted and talented. At our school we teach Design and Technology to all children, whatever their ability and individual needs. Design and Technology implements the school curriculum policy of providing a broad and balanced education to all children. Through our Design and Technology teaching we provide learning opportunities that enable all pupils to make good progress. We strive hard to meet the needs of those pupils with special educational needs, those with disabilities and those with special gifts and talents.

Monitoring

Monitoring is the responsibility of the Design and Technology Lead.