**Aims and Objectives**

Design and Technology prepares children to take part in the development of tomorrow’s rapidly changing world. The subject encourages children to become risk takers and creative problem solvers, both as individuals and part of a team. It enables them to identify needs and opportunities and to respond by developing ideas and eventually making products. Through the study of DT they combine practical skills with an understanding of aesthetic, social and environmental needs. This allows them to reflect on, and evaluate, past and present design and technology, it’s uses and impact. Design technology helps all children to become discriminating consumers and potential innovators.

The objectives of Design Technology:

* To develop imaginative thinking in children and to enable them to talk about what they like and dislike when designing and producing.
* To enable children to talk about how things work, and to plan and model their ideas.
* To encourage children to select appropriate tools and techniques for making a product and to use safe procedures.
* To develop an understanding of technological processes, products, their manufacture and contribution to society.
* To foster enjoyment and satisfaction in designing and making.

The National Curriculum for Design & 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.

The fundamental skills, knowledge and concepts of the subject are set out in the programmes of study in the following areas:

* Design
* Make
* Evaluate
* Technical knowledge

**Teaching and Learning Style**

The school uses a variety of teaching and learning styles in DT lessons. Our principal aim is to develop the children’s knowledge, skills and understanding. Teachers ensure that the children apply their knowledge and understanding when developing ideas, planning, making and evaluating the final product. We do this through a mixture of whole class teaching and individual/group work activities. Within lessons, we give children the opportunity to work on their own, and to collaborate with others, listening to ideas and treating others with respect. Children critically evaluate existing products, their own work and that of others. They have the opportunity to use a wide range of resources including ICT.

In all classes there are children of differing abilities. We recognise this act and provide suitable learning opportunities for all children, matching the challenge of the task to the ability of the child. We achieve this through a range of strategies:

* Setting common tasks that are open-ended and can have a variety of results.
* Groping children by ability and setting different tasks for each group.
* Providing a range of challenges through the provision of different resources.
* Using additional adults to support the work of individual children or small groups

**Design and Technology Curriculum Planning**

DT is a foundation subject on the National Curriculum. At Delph Side, we deliver DT as part of our theme based learning. We devise plans which outline the key skills, key learning (as linked in our Curriculum Map and Skills Progression), teaching input and task (differentiated) and an opportunity for reflection at the end of each learning experience.

Activities are planned to build on prior learning and we plan for progression over the year, so there is an increasing challenge for the children as they move through school.

**The Foundation Stage**

We encourage the development of skills, knowledge and understating that can help children to make sense of their world. Learning experiences are planned in Nursery & Reception based on the Early Years Outcomes. Children work towards meeting the early learning goals in ‘Understanding the World’ and ‘Expressive Arts & Design’. We provide a range of experiences that encourage exploration, observation, problem solving, critical thinking and discussion. These activities, both indoor and outdoor, attract the children’s interest and curiosity.

These early learning experiences include:

* Real life experiences of animals to develop understanding of growth, decay & changes over time
* Asking questions about how things work
* Investigating and using construction kits
* Using a variety of materials, tools and products
* Exploring the natural world in different weathers, seasons etc.
* Handling appropriate tools and construction material safely and with increased control.

**Design Technology and Information Communication Technology**

ICT enhances our teaching of DT, where appropriate, across all key stages. Children use software and skills from the Computing Curriculum to enhance their designing and making. The children also use the internet and iPads to find out more about the products they will eventually produce.

**Design Technology and Inclusion**

Through our DT teaching we provide learning opportunities that allow pupils to make progress. We do this by setting suitable learning challenges and responding to each individual child’s specific needs. Teachers will provide instruction and guidance on technical processes to take into account these specific needs. We strive to meet the needs of all our pupils with special educational needs, disabilities, who show special talent, and of those learning English as an additional language.

**Assessment for Learning**

We assess children’s work in DT while observing them working during lessons. Teachers use progress judgements against the learning objectives and the success criteria for the lesson. Feedback is given to the children during lessons which allows children the opportunity to develop and progress in future tasks. Children are assessed in line with Age Related Expectations across a range of skills from the National Curriculum, as outlined in our Curriculum Map and Skills Progression documents. These skills are built upon in each successive year – the subject leader keeps progress records for each year group. An annual assessment of progress for ach chid is made and this is reported to parents as part of the child’s school report.

Children are encouraged to assess and evaluate both their own work and that of other pupils. This helps the children to appreciate how they can improve their performance. This helps them to appreciate how they can improve their performance and potential targets for the future.

**Health and Safety**

It is the responsibility of the teacher to ensure all pupils are taught to use materials, tools and techniques for practical work safely and in accordance with health and safety requirements. All adults working with pupils will be made aware of the health and safety implications, will have access to any guidelines used by the school, and will be aware of the school’s First Aid policy. Teachers are responsible for carrying out risk assessments when necessary. Children are always made aware of the rules that apply when working with specific tools in D&T.

Use of craft knives should be limited to teaching staff and to year 6 children under direct adult supervision. Hot glue guns should be used by teaching staff/adults only.