Design Technology Policy

Aims: At Fellgate Primary School we aim to **excite** and **ignite** their interest in design technology and prepare our children to participate in the development of a rapidly changing world. We aim for **all** children to become confident and skilled in using **creativity** and **imagination** to design and make products for a specific need that **solve real** and **relevant problems** within a variety of contexts. We believe **all** our children will learn how to become **innovative, resourceful, enterprising** and **work capably** with the knowledge and practical skills to bring about change through their **ideas** which impact on daily life and the wider world. We want our children to consider their own needs and others' needs, wants and values. Our children will acquire a broad range of **subject knowledge** and draw on disciplines such as; mathematics, science, computing and art. The curriculum is well sequenced to provide a coherent subject scheme that builds upon children's **prior knowledge** and develops a wide range of skills through designing, planning, making and evaluating.

We follow the National Curriculum for teaching design and technology which aims are:

1. Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world.
2. 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
3. Critique, evaluate and test their ideas and products and the work of others.
4. Understand and apply the principles of nutrition and learn how to cook.

Teaching Approaches: The school follows the National Curriculum for teaching design and technology through Cornerstone scheme of work which provides a well-structured approach to teaching by using the four stages of pedagogy *Engage, Develop, Innovate and Express*. We follow the Cornerstone Curriculum which is designed for teachers to use **projects** for specific year groups which are based around a design and technology subject focus of;

- structures
- mechanisms
- cooking and nutrition
- textiles
- electronic systems
- digital monitoring

Through a variety of creative and practical activities pupils will be taught the knowledge, understanding and skills needed to engage in an iterative process of designing, making and evaluating. Teachers will use the progression of skills and knowledge document to plan and ensure children are making progress in their design knowledge and skills.

Differentiation and Challenge: In design and technology lessons, tasks will be differentiated so that pupils are challenged appropriately to achieve successful outcomes. All children are able to experience success at their own levels. Children will develop resilience and problem solving to create designs and make products. Children who can show perseverance and natural confidence in their abilities will be challenged through their explanations, through their responses to an idea and through careful questioning from teachers. As pupils progress, they should be able to think critically and develop a more rigorous understanding of design and technology.

Growth Mindset: It is our aim to maintain an ambitious vision, with high expectations and a culture of problem solving, resilience and improvement developed through Growth Mindset. We encourage children to develop their ideas in design and technology books which can be annotated and evaluated.

DT Curriculum: We instil the core National Curriculum aims of a high-quality design and technology education which should engage, inspire and challenge pupils, equipping them with the knowledge and skills to experiment, invent, design and make their own work.

Inclusion and Equal Opportunities: Our curriculum is fully inclusive and all children can succeed in design & technology. All children are given equal access to the design and technology curriculum irrespective of race, gender, nationality or level of ability. We support ranging needs, celebrate cultural diversity and make learning relevant through linking content to the context of our school and children.

Cross Curricular links: The application of skills and knowledge in order to solve problems is central to learning and progression in DT. Therefore, prior learning from other subjects (ICT, science and maths) are recognised within the DT progression of skills document. Maths skills are used in many DT projects such as accurate measuring, converting measurements, considering different shapes for stability and durability and using problem solving approaches towards challenges. ICT can be used in many DT projects as computer software can be used to create digital plans and design packaging for products using purple mash.

Planning in Design & Technology: The school follows the Cornerstone Curriculum scheme of work is implemented and designed for teachers to use projects for specific year groups which are based around a design and technology subject focus of structures, mechanisms, cooking and nutrition, textiles, electronic systems and digital monitoring. Each project follows a well-structured approach to teaching by using the four stages of pedagogy *Engage, Develop, Innovate and Express*. Teachers also plan based on the needs of the children in their class and other sources may be used to enhance the lessons in order to meet needs of *all* children. Cornerstone Curriculum projects follows a structure where children are introduced to key concepts and build up knowledge and skills over time, using a more comprehensive range of equipment and building, cutting, joining, finishing and cooking techniques as they progress through schools.

Health & Safety: School has its own generic risk assessment which can be found in the resources drive. This risk assessment is reviewed annually with South Tyneside's Health & Safety Department. There is also a risk assessment for Design and Technology.

How do we assess Design and Technology? We assess children's work in Design and technology while observing the children completing working during lessons, through questioning and evaluations. Teachers base progress judgements against the learning objectives for the lesson. Feedback is given to the children during lessons, allowing the opportunity to develop and progress in future tasks. Children are also encouraged to assess and evaluate both their own work and that of other pupils which is a vital part of the curriculum. This helps the children to appreciate how they can improve their performance for the future. Children are assessed in line with age related expectations outlined in the National Curriculum. An annual assessment of progress for each child is made.

Information and Communication Technology (ICT) in Design Technology: Design Technology is linked to computing across all key stages. Children will use software and skills from the Computing Curriculum to create digital plans and designs packaging for products using purple mash. Computer

aided designs can enhance the final product of designs and can enhance pupil's skills, knowledge and understanding.

Resources in Design and Technology: Children are provided with a variety of materials, tools, and resources for practical work. The resources are organised and kept centrally. They are maintained and updated annually. Sometimes other resources are required within lessons and are purchased by class teachers who are reimbursed for their purchases.

CPD in DT: Where necessary subject leader will deliver information and share information from outside professionals and organisations.

Work and Presentation: Design and technology work is presented in different ways. Children will use design and technology books to record designs, annotations and evaluations. Work is completed using a variety of materials and some evaluations are recorded in different ways.

Marking: Teachers will respond to misconceptions as a whole class using critiques. Pupils will also self-assess/peer mark. Teachers questioning is used to extend learning and allow for pupils to explain their reasoning and thoughts. Teachers follow the whole school marking policy to mark work in design and technology books.

Evaluation and Monitoring: Teachers ensure good coverage of design and technology, termly pupil voice questionnaires, work scrutinies and learning walks. When formal observations take place, they are conducted alongside a member of SLT with a key focus.

School Governor Role in Design Technology: There is a link governor allocated for the oversight of DT. Key documents/action plans are shared when updated and regular meetings are held with the link governor