



## What We will Offer

### Vision Statement for DT

Subject Leader – E Carter

*Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.*

*Taken from the DT programmes of study: key stages 1 and 2 National Curriculum in England.*

At Tilery Primary, we want all of our pupils to be inspired to learn to think and intervene creatively to solve problems both as individuals and in groups resulting in the acquisition of new knowledge and skills. Our DT curriculum is designed to interest and motivate our children and promote high aspirations. Projects are cross curricular wherever possible linking to other subjects taught such as mathematics, science, computing and art.

We teach our children to use their creativity and imagination to express themselves whilst developing their knowledge and understanding with design. DT helps pupils to solve exciting, relevant real-life problems within a variety of contexts, considering their own and others' needs, wants and values. Children are given the opportunity to use DT to build and create links with the local community. They are given the chance to design and make products to evaluate learning as part of a whole process. Children will work in a positive learning environment where all children's work will be celebrated.

Children will also be given the opportunity to develop their love of cooking by applying principles of nutrition to prepare tasty, healthy snacks and meals throughout the year, as seasons change, using seasonal produce.

The children are also given opportunities to reflect upon and evaluate past and present design technology, its uses and its effectiveness and are encouraged to become innovators and risk-takers.

Wherever possible, appropriate educational visits will take place to enhance learning.

'Tell me and I forget - Show me and I may remember - Let me do it and I learn.'

(Prue Leith, Leith's School of Food and Wine As quoted in National Curriculum Document 2001, page 14)

### Aims & Objectives

We aim to provide children with appropriate and sufficient Design Technology materials and tools so that they are able to design and explore variations of making and building crafts. The Design Technology learning objectives are linked to each year groups exciting topics with the aim of these lessons being relevant with an applicable purpose.

Key stage 1 pupils should:

- experience a variety of creative and practical activities
- be taught the knowledge, understanding and skills needed to engage in a process of designing and making
- work in a range of relevant contexts [for example, the home and school, **gardens and playgrounds, the local community**, industry and the wider environment]

Key stage 2 pupils should:

- experience a variety of creative and practical activities

- be taught the knowledge, understanding and skills needed to engage in a process of designing and making
- work in a range of relevant contexts [for example, the home, school, **leisure, culture, enterprise,** industry and the wider environment]

Concepts & Progression of Knowledge & Skills

Our cross curricular DT curriculum provides children with opportunities to practise and apply key skills, within the subject and across the curriculum. These key skills show progression throughout school, allowing pupils to: Design, Make and Evaluate; investigate and make Structures and Mechanisms; add electrical components to their work; work with textiles and learn about Food and Nutrition and prepare simple foods. These skills are not just developed year on year, but across the three terms and also across the two DT cycles. A Key Concepts Progression table for Cycle A and B and a DT Skills Progression Map for Cycle A and B has been produced and is available for all staff to access.

Sequencing i.e. revisiting & making connections to previous learning

At Tilery Primary School we have long term plans for EYFS, KS1 and KS2 and are covering what is in the National Curriculum. We will begin a unit of work by discussing the Key Concepts and making links with prior years, explaining when these key concepts were previously taught. Each lesson begins with Retrieval Practice: the first lesson based on the previous year’s teaching and then the following lessons’ Retrieval Practice focusing on what has been taught, in that unit of work. Challenge is also given to children by asking open ended questions such as: What if? Or What might happen next? Promoting children’s learning, in other classrooms, through “showcasing” work, is also important; allowing children to see what is happening in DT, in younger and older year groups.

Concept Map  
FS1 and FS2

Skills	FS1 Autumn	FS2 Autumn	FS1 Spring	FS2 Spring	FS1 Summer	FS2 Summer
<b>Design</b>						
<b>Make</b>						
<b>Evaluate</b>						
<b>Key Concepts</b>						
Structures						
Textiles						
Food and Nutrition						

KS1

Skills	KS1 Autumn	KS1 Autumn	KS1 Spring	KS1 Spring	KS1 Summer	KS1 Summer
<b>Design</b>						
<b>Make</b>						
<b>Evaluate</b>						
<b>Key Concepts</b>						
Structures						
Mechanisms						

Textiles						
Food and Nutrition						

LKS2

<u>Skills</u>	<u>LKS2 Autumn</u>	<u>LKS2 Autumn</u>	<u>LKS2 Spring</u>	<u>LKS2 Spring</u>	<u>LKS2 Summer</u>	<u>LKS2 Summer</u>
<b>Design</b>						
<b>Make</b>						
<b>Evaluate</b>						
<b>Key Concepts</b>						
Structures						
Mechanisms						
Electricity						
Textiles						
Food and Nutrition						

UKS2

<u>Skills</u>	<u>UKS2 Autumn</u>	<u>UKS2 Autumn</u>	<u>UKS2 Spring</u>	<u>UKS2 Spring</u>	<u>UKS2 Summer</u>	<u>UKS2 Summer</u>
<b>Design</b>						
<b>Make</b>						
<b>Evaluate</b>						
<b>Key Concepts</b>						
Structures						
Mechanisms						
Electricity						
Textiles						
Food and Nutrition						

Cross Curricular Links

Each element of Design Technology is embedded into the topic plans in a way that is relevant and exciting. Strong links are made between DT and other curriculum subjects. An example is in the UKS2 DT topic, structures and electricity. Art is structures and Science is electricity and the children will make life-sized robots with electrical components. Food and nutrition is also incorporated into each year group, linked to

topic where possible for example, Viking bread. There are also links with Computing and with History with pupils studying a range of great local and significant artists, architects, inventors and designers.

### Inclusion – Curriculum for All

At Tilery Primary School we promote high expectations to all children.

We recognise that we have pupils of differing ability in all of our classes, and to make the lessons inclusive, teachers anticipate what adaptations they need to make for pupils with SEND or for those who are working at greater depth.

### SEND

Except in exceptional circumstances, where a child has an EHCP and cannot access the DT unit of work, expectations are that all children will achieve the same end points. A list of ideas to support children has been given to all staff. We provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child, achieving this through a wide range of strategies. e.g. using pre-cut templates, working with a partner, recording their evaluation rather than writing it down. Occasionally, pupils with SEN and/or disabilities will have to work on different activities, or towards different objectives, from their peers.

### Mastery

Children working at greater depth will have mastered the learning objective expected for their age and will therefore be able to delve deeper into the concept in more detail. Their achievement will now focus on the depth of understanding of the areas taught and the ability to apply this understanding in a variety of contexts. It is not accessing the next year's curriculum. We use the phrase, 'Teach less, learn more'. It is not simply knowing the answer and memorising facts. Children, working at greater depth will have the opportunity to articulate their learning by explaining how they solved a question or prove how they discovered the information. They will also make links between their knowledge across the curriculum and will apply them to everyday life. For pupils to gain an in-depth knowledge of a concept, teachers will provide them with a range of different styles of questions and scenarios. This not only exposes them to variation, but it also captures their intellectual curiosity and leads to positive attitudes to life-long learning.

### Equal Opportunities

We believe that all children irrespective of background, race, gender and capability should have equal access to the curriculum as stated in each curriculum policy. The school makes every effort to respect and reflect pupils' religious beliefs and take community views into account when teaching DT.

### SEN

At Tilery Primary we recognise the need to cater for children with special educational needs. Work is differentiated to assist in children's learning in terms of:

- learning outcomes
- tasks
- teaching methods
- resources
- outcome

Tasks can be broken down into small steps, giving children achievable goals. Vocabulary can be pre-taught, word banks and visual cues can be provided. Activities should reinforce children's understanding of the subject and their basic literacy or numeracy skills should not be a barrier.

## How the Curriculum Prepares Children for the Next Stage of their Education

The key knowledge, skills and vocabulary that children acquire and develop throughout each unit of work has been carefully mapped to ensure progression between the year groups throughout the school. This results in the children acquiring the level of skills they need to succeed within the next stage of their education.

## How We will Deliver It

### Investment in Staff /CPD, Secure Subject Knowledge

Staff are encouraged to inform the Subject Leader if there are any areas that they are required to teach that they are not sure about. The subject leader will also carry out lesson observations and work scrutinies. It is the responsibility of the Subject Leader to support staff and ensure that they have the knowledge and skills required to implement the curriculum. CPD will take many forms including Staff Meetings, discussions, pointing a colleague in the direction of a useful website, team teaching, formal courses. All CPD will be recorded with the impact it has had.

### The Learning Environment

At Tilery Primary School we provide a rich, stimulating environment in which we encourage and value creativity. Our curriculum is engaging, inspiring and challenging; pupils are encouraged to embrace their creativity. All classrooms have a DT Working Wall. Displayed here are the key concepts being taught which are referred to at the start of each lesson. We also have carefully chosen vocabulary, which is displayed as it is taught. Books related to DT will be available for the children to read to gain a wider knowledge of the subject. Children's work is displayed and celebrated.

### Summary of Expectations

In EYFS, DT makes a significant contribution to the ELG 'Understanding of The World' through activities such as: constructing a structure and making joins; using a range of tools and cooking techniques; exploration through dismantling things and learning about how everyday objects work and discussion.

In KS1, children will design, make and evaluate a variety of purposeful, functional and appealing products. They will develop skills in building structures, exploring how they can be made stronger, stiffer and more stable and will explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. They will use the basic principles of a healthy and varied diet to prepare dishes and understand where food comes from.

In KS2, children will design, make and evaluate a variety of innovative, functional and appealing products that are fit for purpose. They will develop skills in how to strengthen, stiffen and reinforce more complex structures and will understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]. They will understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] and will apply their understanding of computing to program, monitor and control their products. They will understand and apply the principles of a healthy and varied diet and prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. They will understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

## Quality of Teaching & Pedagogy

High-quality teaching takes place at Tilery Primary School and staff have developed a sequenced and progressive curriculum containing the key concepts children need to be fluent to work and think like professional designers and inventors.

These key concepts are discussed at the beginning of a unit also explaining when they were last taught to enable children to understand their DT learning journey. Retrieval Practice follows, recapping learning from the previous year and previous lessons within the unit. Carefully chosen vocabulary, which progresses across the year groups, is taught in each unit. This is displayed as it is taught. Teachers use questioning, and provide opportunities for discussion and investigation to support the development of vocabulary and skills, which are explicitly taught and modelled by teachers in every lesson. Children then use these skills to work independently to produce a finished product which is “showcased” to the school. We support learning with trips and visitors to school, where appropriate, to inspire our children and widen their cultural experiences.

## Learning Strategies

Children have ownership of their learning and can enquire freely demonstrating initiative and **resilience**. Teachers use pupils’ curiosity to follow a child-led approach. We provide a broad and challenging curriculum where **high expectations** are set for all. Our approach is enquiry-based which encourages curious and inquisitive designers and makers. Different teaching strategies will take place: think, pair, share, teacher-directed, pupil-directed, whole class, group work, individual work, discussion based, resource based. Because of the nature of the subject, the work is mainly practical. The children will record their work through discussion, drawing, writing and taking photographs etc.

## Resources

Teachers are encouraged to use a range of resources such as recycled materials and ready-made products, videos, photographs and non-fiction texts during lessons to help create immersive learning experiences.

## Formative & Summative Assessment

Through the high-quality teaching of DT taking place at Tilery, acquisition of knowledge will be measured in a variety of ways: teacher observations, questioning during lesson time; class and group discussions, answers on whiteboards, marking children’s work; self and peer assessments, interviewing pupils across the school about their learning; work scrutinies and using images/videos of children’s practical learning. Formative assessments are used during the lesson to inform the teacher’s decision-making process; notifying them when pupils are ready to take the next steps while also providing the flexibility for teachers to respond to the needs of the individual.

Summative assessments will be used to assess the students learning at the end of a unit against the end points. Examples of summative assessments are final projects and presentations.

Assessment is in line with the school’s assessment policy. Teachers are expected to assess at the end of every term against the end points outlined on the DT curriculum map for each year group, alongside the key concepts.

## Evidence of Attainment & Progress

Evidence of attainment and progress will be found in photographs, books and displays, through discussions and through end of unit “showcasing” of work.

## **The Difference it Will Make**

### **How is Impact Measured – Have Pupils Achieved What was Intended?**

Class teachers will measure the impact of their teaching through formative and summative assessments against the end points and key concepts taught.

Our children will:

- enjoy designing and creating different models and crafts to meet relevant objectives, enhancing their own imagination and creativity
- be able to talk about the knowledge and skills they have acquired, particularly in the evaluate focus of 'design, make, evaluate'
- celebrate what worked well and reflect on what could have been better, this will encourage children to be more resilient in trying different strategies in Design Technology, other subjects, and wider school life
- have a wider vocabulary of DT terms
- develop their DT skills, such as, designing, making and evaluating, creativity, problem solving and enquiry.

### **Monitoring & Evaluation of Standards - Purpose of Data**

Subject leaders will monitor and evaluate the standards in their subjects following the school's monitoring programme. This will include: lesson observations, work scrutinies and listening and recording pupil voice. This will provide the subject leader with the evidence to self-evaluate and make judgements about the quality of the teaching and learning. It will allow the subject leader to identify strengths and areas to improve. This will inform targets on the action plan. The purpose of gathering data is to improve standards, progress and achievement and will provide teachers with aspects to improve their teaching and children's learning.

### **Reporting (governors & parents)**

The subject leader will report annually to the Governing Body. This report will include: achievements, CPD, quality of teaching and learning, strengths, areas to improve, ways forwards and data. Parents will also receive annual information telling them where their children are working in relation to their age.

## **Curriculum Enrichment**

### **Learning Outside the Classroom, Experiences & Opportunities**

*"Outdoor learning experiences are often remembered for a lifetime. Integrating learning and outdoor experiences, whether through play in the immediate grounds or adventures further afield, provides relevance and depth to the curriculum in ways that are difficult to achieve indoors."*  
*Curriculum for Excellence Through Outdoor Learning (2010). P.5*

DT in outdoor areas has many advantages. School supports learning with trips to inspire our children and widen their cultural experiences. These can be day trips or sometimes just using the school grounds can be a great starting place. Some examples are: visiting a local park or sculpture park, making natural sculptures, cooking outside, having a teddy bears picnic.

As part of Inspiration for Aspiration, visitors are invited into school to talk to the children and the teachers talk to the children and show videos of jobs the children could aspire to have.

### **Capital Culture**

Cultural Capital is *"the essential knowledge that pupils need to be educated citizens, introducing them to the best*



*that been thought and said and helping to engender an appreciation of human creativity and achievement.”*  
Ofsted 2019

In some house-holds, cultural capital experiences and knowledge happens naturally e.g. watching an orchestra, visiting a castle, learning about Shakespeare, taking part in debates. It is up to schools to try to provide as many situations as possible for children to experience the opportunities available to them. We believe all children have the right to a full breadth of experiences. **Local and global responsibility** is promoted across the school. Pupils develop their knowledge of local and famous designers and craft makers. The curriculum develops a child's interest and curiosity about design through a series of lessons offering skills progression, knowledge progression and offering pupils the opportunity to explore and demonstrate their skills in a variety of ways. Children will learn about a range of areas where designing and creating for a purpose take place, including cooking, sewing and building structures. We link these subjects to real life experiences and famous engineering experts through STEM and Inspiration for Aspiration.

### Community Links

KS1/EYFS will hold a sale, for families and friends, linked to their Food Technology topic and it is planned for KS2 to complete a DT topic at Northshore Academy. A DT newsletter including a recipe linked to the seasons, or a seasonal festival will be posted, monthly, on Facebook.

## **Roles and Responsibilities**

### The Governing Body

The Governing Body will monitor the effectiveness of this policy and hold the Headteacher to account for its implementation.

The Governing Body will also ensure that:

- Enough teaching time is provided for pupils to cover the National Curriculum and other statutory requirements;
- Proper provision is made for pupils with different abilities and needs, including children with special educational needs (SEN);
- The school implements the relevant statutory assessment arrangements;
- It participates actively in decision-making about the breadth and balance of the curriculum.

### Headteacher

- The Headteacher has overall responsibility for the leadership and management of the school. As the leading professional, the Headteacher is responsible for ensuring that this policy is adhered to, and that:
- All required elements of the curriculum, and those subjects which the school chooses to offer, have aims and objectives which reflect the aims of the school and indicate how the needs of individual pupils will be met;
- The amount of time provided for teaching the required elements of the curriculum is adequate and is reviewed by the Governing Body;
- The school's procedures for assessment meet all legal requirements;
- The Governing Body is fully involved in decision-making processes that relate to the breadth and balance of the curriculum;
- Proper provision is in place for pupils with different abilities and needs, including children with SEN.

### Role of the Subject Leader

The role of a subject leader is to provide professional leadership and management for a subject to secure high quality teaching, effective use of resources and improved standards of learning and achievement for all pupils.

The subject leader ensures that the policy is adhered to and will:

- provide leadership and direction for the subject and ensure that it is managed and organised to meet the aims and objectives of the school and the subject;
- have responsibility for securing high standards of teaching and learning in their subject as well as playing a major role in the development of school policy and practice;
- ensure that practices improve the quality of education provided, meet the needs and aspirations of all pupils, and raise standards of achievement;
- play a key role in supporting, guiding and motivating teachers;
- evaluate the effectiveness of teaching and learning, the subject curriculum and progress towards targets for pupils and staff, to inform future priorities and targets for the subject;
- produce an annual action plan which will be part of a School Development Plan.

It is important that a subject leader has an understanding of how their subject contributes to school priorities and to the overall education and achievement of all pupils.

### Role of the Class Teacher

Classroom staff will ensure that the school curriculum is implemented in accordance with this policy.