Design Technology Policy

Policy Changes

Date	Actions
January 2021	Policy implementation

Subject Leader

Date	Subject Leader
September 2021	Bianca Spencer
September 2022	Kay Barrett
September 2023	Kay Barrett

Mission Statement

At Red Lane we believe that all our children can achieve, becoming successful future citizens that contribute positively to a society in which all members are equally valued.

High aspirations, high motivation and high outcomes for all, ensure that achievement gaps wherever they exist are narrowed in order to improve pupils' life choices and future prospects.

We strive for all of our children to be safe, feel valued, develop resilience and continually learn within our nurturing and supportive community.

At Red Lane, our children BELIEVE, ACHIEVE and SUCCEED!

Curriculum

The curriculum, in its widest sense, firmly underpins the school's Mission Statement, Aims and school motto 'Believe, Achieve, Succeed'. At Red Lane, the curriculum is rooted in the needs and context of our community and learners. We provide an enriching and exciting curriculum the foundations of which are rooted in quality first hand experiences, designed to develop vocabulary and cultural capital whilst ensuring that knowledge is durable and transferrable allowing pupils to make connections, develop and apply skills and reason.

Our school curriculum design focuses on the knowledge, skills and understanding of our pupils and their needs in order that all children achieve well. Our school curriculum provides for academic achievement but places the role of developing spiritual, moral, cultural and social development at the heart of all we do with the ultimate aim of ensuring all pupils leave Red Lane with the confidence, knowledge and skills to become successful and independent lifelong learners who can make a positive contribution to our diverse and democratic society.

Curriculum Intent for Design Technology

Design Technology embodies some of the highest forms of human creativity and technological advancement and we believe that it is our duty to develop cultural appreciation of designers, engineers, textile artists and chefs, and to develop knowledge of key individuals and their contributions in this field. It is through these key principles that we engage, inspire and challenge pupils whilst equipping them with knowledge and skills to explore, invent and create their own works of design and innovation.

At Red Lane, Design Technology is taught as a discrete subject in order that the development of knowledge and skills is taught meaningfully and explicitly. Naturally, links are made to other areas of the curriculum but this does not dilute the quality and entitlement of high quality Design Technology teaching.

The school's long term plan for Design Technology sets out the content of teaching within in each year group. This is supported by the school's Design Technology progression document which demonstrates learning outcomes within each strand of development within a Design Technology unit. Short term planning details how this content is developed over a series of lessons within the unit of work. The organisation of the Design Technology curriculum provides structured opportunities for pupils to:

- record responses, including observations of the natural and made environment;
- gather resources and materials, using them to stimulate and develop ideas;
- explore and use two and three-dimensional media, working on a variety of scales;

- review and modify their work as it progresses;
- develop understanding of the work of designers, engineers, chefs, artists and craftspeople, from a range of times and cultures, applying knowledge to their own work;
- respond to and evaluate design and technology including their own and others' work;
- show development in their ability to create designs and products;
- understand and apply the basic principles of design and technology including: mechanisms, textiles, food, structures and electrical systems;
- realise their ideas and sustain a level of working from start to the completion of a project or a piece of work.

Teaching and Learning Design Technology

In addition to the conscious structure and design of the Design Technology curriculum, great consideration has been paid to the design of the implementation of the curriculum in the classroom. Teaching delivery will vary according to the activities being undertaken, but will follow the principles set out in the Teaching, Learning and Implementation policy and will include class, group and individual instruction and guidance, exposition and demonstration, and the use of questioning and discussion. The following resources and approaches are adopted across all year groups in order to ensure effective delivery of the intended curriculum.

Design Technology Books

Design Technology books are used throughout the school to regularly record, collect and explore ideas and images and other information relevant to current and ongoing work. The Design Technology book is an essential and personal record of a child's ideas, thoughts, designs and achievements.

The contents of a Design Technology book may include:

- record of what has been seen;
- preparatory studies for further work;
- the development of ideas for further study;
- a record of the development of basic skills;
- trails and examples of new skills that have been explicitly taught;
- photographs and other illustrative material to support ongoing work;
- a record of observations seen outside the classroom which will be used as a reference material for further work, for example on a school visit;
- a number of initial designs
- a final design, including a list of resources, materials and skills/techniques to be used (where appropriate)
- a detailed evaluation of their work

Design Technology books are an essential record of an individual pupil's experiences and ideas throughout a year and key stage and will be seen as evidence for assessment and reporting purposes.

Seesaw

Seesaw is an online portfolio that collates pupil's work that has been completed digitally or where evidence of a pupil's work is recorded using photographic evidence. This software allows teachers and pupils to give feedback verbally. This may accompany a pupil's Design Technology book with photographic evidence of the pupil's work.

Knowledge Organisers

Each unit of work has a corresponding knowledge organiser which has been designed purposefully alongside the subject content and progression. These are used by all year groups in each lesson. They are used in a variety of ways in the classroom:

- o To draw pupil's attention to the facts they will learn and how these fit into the bigger picture. This gives pupils a sense of perspective and coherence.
- o To assess pupils understanding about a unit.
- o To support learning at home through homework tasks and projects.
- o To check previous knowledge by revisiting at regular intervals (knowledge days).
- o To make clear links with prior and future learning.
- o To ensure progression of key concepts and vocabulary.

Knowledge Days

The development of pupil's memory is an integral part of everything we do. Long-term memory is now viewed as the central, dominant structure of human cognition. Everything we see, hear, and think about is dependent on and influenced by our long-term memory. Therefore we must ensure pupils have the opportunity to develop their memory each day and give them activities that allow them to practice previously learnt knowledge. Knowledge Days take place each half term. These are planned in advance so teachers have time to prepare resources.

Pupils revisit learning using low-stake quizzes and presentations. LBQ is used for retrieval practice and group presentations are used to share understanding of a previously learnt topic. It is expected that each group within a class will focus on different areas of previously learnt knowledge then share their understanding of this with the rest of the class.

Learning by Questions (LBQ)

LBQ is used as a diagnostic tool at the start of a unit of work in order to assess and revisit prior learning within a curriculum strand. It is also used as one part of the end of unit assessment. During knowledge days, LBQ is used to revisit and/or reassess previous learning.

Presentations and exhibitions

The celebration of pupil's work and the sharing and articulation of knowledge and experiences is a fundamental part of the curriculum. Knowledge days support this alongside spaced retrieval with peers in the classroom. In addition, within each year group, pupils will showcase their work and their learning to the other classes in their key stage.

Assessment

Progress and attainment in Design Technology is tracked using the school's own assessment system which is based upon a progressive subject criteria that is assessed within each area of learning. Teacher assessment of the Design Technology work produced and skills developed is assessed alongside key subject knowledge and knowledge of designers, engineers, textile artists and chefs. The assessment of knowledge takes place through the use of Learning by Questions (LBQ). Pupils answer a series of questions specific to the strand of Design Technology they have studied for example, mechanisms. This **retrieval practice** allows pupils to retrieve previously taught information from the long term memory. This assessment alongside assessment of pupils' practical work is used to make an overall assessment of learning. This is recorded on the cohort's Design Technology tracker.

The Design Technology tracker provides a cohesive picture of Deign Technology attainment for each cohort and clearly identifies pupils requiring additional support. The information provided is valuable for class teachers in supporting their pupils but also to the subject leader and senior leaders about the strengths and weaknesses in Design Technology across cohorts, groups and the whole school.

Through targeted intervention and revisiting learning through 'Knowledge Days', assessment remains functional and fluid and is updated to reflect the impact of intervention and also the further progress pupils have made.

Resources

The organisation and deployment of resources, including risk assessment, is the responsibility of the subject leader. Management, equipment and resources for Design Technology are organised to promote effective use by pupils. Teachers demonstrate the ways in which specific materials or processes will be organised, and pupils are expected to take an increasing level of responsibility for that organisation.

The school is committed to expanding present equipment wherever necessary and possible, and to organising human and physical resources, with the aim of motivating both staff and pupils to take part in creative activities.

The class teacher is responsible for ensuring the safety of the children during the lesson by instructing them in the safe and appropriate use of any equipment. The class teacher is responsible for the general care of the equipment during the lesson by instructing the children in the correct use of the equipment and by replacing them safely after use. The class teacher should report damage to equipment to the Design Technology Leader as soon as possible.

Continuing Professional Development

In order to ensure the highest quality teaching and learning in Design Technology, the school is committed to the continuing professional development of both teachers and teaching assistants. The focus of this is determined by the Design Technology subject leader who has the responsibility for coordinating, delivering or sourcing the relevant development opportunities for staff.

Subject Leadership

The role of the subject leader and supporting documentation is detailed in the school's Subject Leader Handbook. The provision of allocated subject leadership time ensures that teachers have the dedicated time to fulfil their roles and responsibilities which include:

- supporting and guide the practice of teachers and support staff;
- ensuring coverage, continuity and progression in planning;
- monitoring and evaluate the effectiveness of Design Technology teaching and learning;
- updating documentation where necessary;
- producing action plans for the School Development Plan, preparing bids and managing the Design Technology budget effectively;
- liaising and consulting with outside agencies where appropriate;
- preparing and leading INSET;
- attending relevant INSET training;
- reviewing regularly the contribution made by Design Technology to a meaningful curriculum;
- reporting to senior leaders, local governors and external reviewers about the position and development of Design Technology across the school.

Spiritual, Moral, Social and Cultural Development

Our pupils are taught how art and design both reflect and shape our history, and contribute to the culture, creativity and wealth of our nation. The curriculum is structured to ensure pupils learn how designers and/or engineers differ around the world and understand the historical and cultural development of their works. Parents, carers, governors and members of the community will be invited to view the children's work during our parent showcases. Every child's work is displayed at this event.

Equal Opportunity and Inclusion

At Red Lane, we endeavour to provide all children with an equal opportunity to maximise their individual potential; this is regardless of ability, gender, cultural background, race, religion, or disability. Activities both within and outside the classroom are planned in a way that encourages full and active participation by all children, matched to their knowledge, understanding and previous experience. Our teaching attitudes, published materials used in instruction with pupils and this policy are guided by these respective policies. Equal emphasis will be given to the roles of both men and women in society, without reinforcing gender, religious or cultural stereotypes. In the planning stage, teachers ensure there is appropriate differentiation for all abilities –including gifted and talented, SEN and EAL. All children are challenged at an appropriate level for the individual.

We have carefully considered and analysed the impact of this policy on equality and the possible implications for pupils with protected characteristics, as part of our commitment to meet the Public Sector Equality Duty (PSED) requirement to have due regard to the need to eliminate discrimination, advance equality of opportunity and foster good relations.

Review

This policy is monitored through:

- Regular scrutiny of children's work
- Regular monitoring and evaluation of planning
- Evaluation and analysis of assessment evidence
- Lesson observations to monitor the quality of teaching and implementation of planning
- Pupil interviews and questionnaires

This policy is reviewed by staff and governors annually.