Design and Technology

Intent, Implementation and Impact

Intent

The curriculum intent for English is firmly rooted in our school desire to give all children strong foundations from which they may become **successful, independent learners for life** and is centred around our school values of **think, collaborate, persist.**

Design and Technology is an inclusive, **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 **meaningful** 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. Our design and technology curriculum strives to embed equality and diversity by creating teaching and learning environments which celebrate a diverse range of designers and engineers. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation which includes British values. Within our school, pupils deepen their understanding of the way different designers, cultural influences and experiences of the outside world reflect and shape the work of designers and themselves.

The end points are defined in the National Curriculum at the end of KS1 and end of KS2. At Parklands, we have defined the end points for each year group to aid the assessment process and ensure knowledge and skills develop well, in sequence within units of work and over time across different themes. Coverage and the progression of skills and vocabulary documents will support the teaching and learning of design and technology to ensure pupils are able to achieve the defined end points.

Our aims for design and technology 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.

Implementation

- DT is taught in focus week blocks during each term.
- Where appropriate, each project makes use of meaningful, cross-curricular links.
- Technology is incorporated where appropriate and links to Maths and Science are made to ensure DT is embedded throughout the year and allows for the transfer of skills.
- The methods of teaching DT include the design process where each project follows: research, design, make and evaluate.

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- DT teaching and learning includes independent and collaborative learning, allowing children to take ownership over their own work and work as part of team.
- Teachers refer to the progression of skills/knowledge documents to ensure coverage and progression. Pupils build on previous learning, developing their knowledge and skills year on year.
- Teachers identify potential barriers to learning and use appropriate adaptations, scaffolds, resources and additional practice whilst maintaining high expectations.
- The subject lead audits resources and provides CPD for staff where necessary.
- Knowledge and skills in cooking is taught during the summer term, each year.
- Pupils evaluate existing products within each project and consider ways to improve their own designs.
- Children record their work in a variety of ways including written, annotated sketches, diagrams and digital images/videos.
- Work produced by pupils is celebrated on school displays and shared with family during events such as 'Night at the museum'.
- Pupils have access to resources which support their learning and experiences. The equipment used is modelled by staff and children use these in a safe manner.
- Where necessary, risk assessments are carried out and pupils are taught about how to stay safe when using equipment.
- In EYFS, teachers provide the opportunity for children to engage in design and technology within the environment where pupils access a wide variety of make and do and modelling materials to create their own designs.
- Year 6 visit the local college during their structures unit to create their own birdboxes, working with the support of members of the DT department when using new equipment.

Impact

By the time our pupils leave Parklands they:

- Take risks with confidence and produce their own designs from research to evaluating.
- Become resourceful, innovative and enterprising individuals.
- Are excited by the prospect of researching, designing and making products.
- Articulate their knowledge of design and technology confidently and have a breadth of vocabulary to draw upon.
- Achieve age related expectations in the subject.
- Progress to Key Stage 3 with the confidence, knowledge and skills to continue their learning of design and technology.