

Subject on a page

DT

At Grace Mary, we are DESIGNERS and TECHNOLOGISTS! We want our children to love Design and Technology. We want them to have no limits to what their ambitions are and grow up wanting to be architects, graphic designers, chefs or carpenters.

INTENT



Develop pupils' understanding of the design process through designing, making, evaluating and refining products.



Build secure technical knowledge and practical skills across a range of materials, tools, mechanisms and technologies.



Encourage creativity, innovation and problem-solving through meaningful design challenges.



Enable pupils to understand the needs of users and create purposeful products for real-world contexts.



Develop pupils' ability to evaluate products critically, considering functionality, sustainability and improvement.

IMPLEMENTATION

-How do we achieve our aims?

Design and Technology is an inspiring, practical and creative subject that prepares pupils to participate in an increasingly technological world. At Grace Mary Primary School, pupils develop the knowledge, skills and creativity needed to design and make products that solve real and relevant problems. Through designing, making, evaluating and refining, pupils become innovative thinkers, resilient problem-solvers and reflective learners.

Our curriculum enables pupils to draw upon learning from mathematics, science, computing and art whilst understanding the impact of design and technology on everyday life, industry and future careers. We aim to develop confident designers and technologists who can think critically, take informed risks and create purposeful solutions for a range of users.

Progression model

Design and Technology is taught through carefully sequenced units that ensure progression in knowledge, skills and vocabulary from EYFS to Year 6. We use the Kapow Primary scheme as a foundation, adapting content to meet the needs of our pupils and curriculum priorities.

The curriculum is structured around six key areas: Mechanisms, Structures, Textiles, Food and Nutrition, Electrical Systems (KS2), Digital World (KS2)

Learning is organised through a spiral curriculum in which key concepts, knowledge and skills are revisited with increasing complexity. This supports long-term retention and enables pupils to build upon prior learning over time.

Each unit follows an iterative design process.

Design Process

Design Pupils investigate existing products, identify users' needs and communicate their ideas through sketches, diagrams and prototypes.

Make Pupils select and use appropriate tools, materials and techniques to create purposeful products safely and accurately.

Evaluate Pupils test, evaluate and refine their products against design criteria, considering function, purpose and user needs. Throughout the process, pupils develop technical knowledge and practical skills, enabling them to understand how and why materials, structures and processes are used effectively.

IMPLEMENTATION

(continued)

Assessment

Formative Assessment

Assessment is ongoing and informs future teaching. Teachers assess pupils' knowledge, skills and understanding through observation, discussion, questioning and the evaluation of practical outcomes. Regular retrieval activities are used to revisit prior learning and strengthen long-term retention. Feedback from teachers and peers supports pupils in improving their work, while self-evaluation encourages reflection against design criteria and identification of next steps.

Summative Assessment

At the end of each unit, pupils' knowledge and application of skills are assessed against the expected outcomes of the curriculum. Assessment information is used to identify attainment, inform curriculum development and support future planning. Pupil voice activities also provide valuable insight into pupils' learning, retention and engagement, enabling leaders to evaluate the effectiveness and impact of the Design and Technology curriculum.

Early Years

Design and Technology begins in EYFS through the Expressive Arts and Design area of learning. Children explore, design, construct and evaluate through purposeful play and first-hand experiences.

Opportunities for designing and making are embedded throughout continuous provision. Children learn to:

Explore materials and their properties.

Select appropriate tools and resources.

Plan and create simple models and structures.

Evaluate and improve their creations.

Communicate ideas and explain their thinking.

These experiences provide the foundations for future learning in Design and Technology.

IMPACT

-How will we know we have achieved our aims?



Pupils demonstrate secure knowledge and understanding of design and technology.



Pupils apply technical knowledge, practical skills and creativity to design and make purposeful products.



Pupils select and use tools, materials and techniques safely, effectively and with increasing independence.



Pupils evaluate, refine and improve their work, explaining design decisions using subject-specific vocabulary.



Pupils retain and connect knowledge over time, drawing on previous learning to solve problems and meet users' needs..