Design Technology Curriculum Statement

How is Design Technology a Sacred Subject?

Design Technology incorporates innovative creativity and risk-taking leading to a high level of resourcefulness enabling learners to become channels of divine inspiration. Design Technology calls forth imagination, resourcefulness, and creativity whilst drawing on a wide variety of complementary disciplines. Design Technology challenges students to engage with issues of inclusion, stewardship, the dignity of the human person and ecology.

Intent

At St Mary's Catholic Primary School, we pride ourselves on giving our children the opportunity to have a rich, broad and balanced curriculum. We provide a high-quality Design and Technology curriculum which aims to inspire pupils to be innovative and creative thinkers who have an appreciation for the product design cycle through ideation, creation, and evaluation. We want pupils to develop the confidence to take risks through drafting design concepts, modelling, testing and to be reflective learners who evaluate their work and the work of others. Through The Kapow scheme of work, we aim to build an awareness of the impact of design and technology on our lives and encourage pupils to become resourceful, enterprising citizens who will have the skills to contribute to future design advancements. Our Design and technology scheme enables pupils to meet the end of key stage attainment targets as set out in the National Curriculum. Foundation stage (Reception) units provide opportunities for pupils to work towards the Development Matters statements and the Early Learning Goals.

Implementation

Our children will have access to a high-quality curriculum. The Kapow scheme of work ensures our children are offered a series of exciting and stimulating lessons, with clear knowledge, skills-based learning objectives and subject specific vocabulary. We implement an inclusive curriculum that meets the statutory requirements of the National Curriculum.

The Design and technology National curriculum outlines the three main stages of the design process: design, make and evaluate.

Each stage of the design process is underpinned by technical knowledge which encompasses the contextual, historical and technical understanding required for each strand. Cooking and nutrition has a separate section, with a focus on specific principles, skills and techniques in food, including where food comes from, diet and seasonality. The National curriculum organises the Design and Technology attainment targets under four subheadings: design, make, evaluate and technical knowledge.

The Kapow Primary's Design and Technology scheme has a clear progression of skills and knowledge within these strands and key areas across each year group. Cooking and nutrition is given a particular focus in the National Curriculum and we have incorporated this so that pupils revisit it throughout their time at St Mary's.

Lessons incorporate a range of teaching strategies from independent tasks, paired and group work including practical hands-on, computer-based and inventive tasks. This variety means that lessons are engaging and appeal to those with a variety of learning styles. Differentiated guidance is available for every lesson to ensure that lessons can be accessed by all pupils and opportunities to stretch pupils' learning are available when required. Knowledge organisers for each unit support pupils in building a foundation of factual knowledge by encouraging recall of key facts and vocabulary.

Within this subject, we introduce, build upon and review the disciplinary skills which require the children to think like a designer as outlined below:

Oracy within Design Technology

Through our Design and technology curriculum, pupils have opportunities to develop their oracy skills by:

- Presenting their design ideas or products to audiences of different sizes
- Explaining designs, preferences or final products
- Role-playing from the point of view of the user
- Discussing products and design ideas using new vocabulary
- Collaborating by organising tasks within a group
- Critiquing others' designs and products
- Reflecting on and responding to feedback towards their own designs and products
- Summarising design ideas.

Impact

The curriculum is designed in such a way that children are involved in evaluation, dialogue and decision making about the quality of their outcomes and the improvements they need to make. The impact of Kapow Primary's scheme can be constantly monitored through both formative and summative assessment opportunities.
Each lesson includes guidance to support teachers in assessing pupils against the learning objectives. Furthermore, each unit has a unit quiz and knowledge catcher which can be used at the start and/ or end of the unit. After the implementation of Kapow Primary Design and Technology, pupils should leave St Mary's equipped with a range of skills to enable them to succeed in their secondary education and be innovative and resourceful members of society.

The expected impact of following the Kapow Primary Design and technology scheme of work is that children will:

- Understand the functional and aesthetic properties of a range of materials and resources
- Understand how to use and combine tools to carry out different processes for shaping, decorating and manufacturing products
- Build and apply a repertoire of skills, knowledge and understanding to produce high quality, innovative outcomes, including models, prototypes, CAD and products to fulfil the needs of users, clients, and scenarios
- Understand and apply the principles of healthy eating, diets and recipes, including key processes, food groups and cooking equipment
- Have an appreciation for key individuals, inventions and events in history and of today that impact our world
- Recognise where our decisions can impact the wider world in terms of community, social and environmental issues
- Self-evaluate and reflect on learning at different stages and identify areas to improve
- Meet the end of key stage expectations outlined in the National curriculum for Design and Technology.