

# St Gregory's Catholic Primary School



## 'Loving and Learning' The St Gregory's Curriculum Design and Technology



*Chronicles 26:15 In Jerusalem he made machines, invented by skilful men, to be on the towers and the corners, to shoot arrows and great stones. And his fame spread far, for he was marvellously helped, till he was strong.*

### **Catholic Social Teaching**

*Participation. Human Dignity.*

### **Catholic School Pupil Profile**

*Discerning. Curious. Wise.*

### **Curriculum Intent for Design Technology**

At St Gregory's, we aim, through our design and technology curriculum, to provide children with the opportunity to develop and enhance their subject knowledge, skill set and experiences. Promoting opportunities to think, create, present, evaluate and reflect, all the while providing a rewarding experience where students can develop their cultural capital by bringing their own experiences into the lessons.

Developments in this subject are continuing with the focus being on assessment and the way data is collected and utilised to promote future planning and content delivery, and the recording of work, through the deployment of class book to log and record evidence.

Design and technology at St Gregory's follows the Kapow scheme of work which delivers curriculum knowledge and skill development through 4 main themes that address all the necessary requirements from the national curriculum.

At St Gregory's we want children to develop an understanding and appreciation for design and how it benefits and impacts society from a historical and present perspective. We want children to be able to utilise previously taught skills and knowledge so that they can further enhance their ability to design and create through different disciplines and mediums.

The Design and technology scheme of work 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, and testing and to be reflective learners who evaluate their work and the work of others.

Through our 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 of work enables pupils to meet the end of key stage attainment targets in the National curriculum and the aims also align with those in the National curriculum. EYFS (Reception) units provide opportunities for pupils to work towards the Development matters statements and the Early Learning Goals.

### **Curriculum Implementation for Design Technology**

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\* have 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. These subheadings form the base strands through which subject knowledge and skill development will be taught at St Gregory's. These are:

- Design
- Make
- Evaluate
- Technical knowledge

Our design and technology scheme has a clear progression of skills and knowledge within these strands and key areas across each year group.

The National Curriculum overview in this folder shows which of units cover each of the National Curriculum attainment targets as well as each of the four strands.

The progression of skills document shows the skills and knowledge that are taught within each year group and how these skills develop to ensure that attainment targets are securely met by the end of each key stage.

Cooking and nutrition is given a particular focus in the National Curriculum and we have made this one of our six key areas that pupils revisit throughout their time in primary school:

Cooking and nutrition  
Mechanisms/ Mechanical systems  
Structures  
Textiles  
Electrical systems (KS2 only)  
Digital world (KS2 only)

Through our design and technology scheme, pupils respond to design briefs and scenarios that require consideration, developing their skills in the six key areas. Each of our key areas follows the design process (design, make and evaluate) and has a particular theme and focus from the technical knowledge or cooking and nutrition section of the curriculum.

Our design and technology curriculum is a spiral curriculum, with key areas revisited again and again with increasing complexity, allowing pupils to revisit and build on their previous learning.

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.

Strong subject knowledge is vital for staff to be able to deliver a highly effective and robust design and technology curriculum. Each unit of lessons includes multiple teacher videos to develop subject knowledge and support ongoing CPD through the Kapow website. The CPD is in place to ensure that staff feel supported to deliver lessons of a high standard that ensure pupil progression.

### **Curriculum Impact for Design Technology**

*The impact on pupils is that they 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.