

# Design and Technology Curriculum

# Intent, Implementation, Impact Statement

## 2024-2025

#### Intent

Our Design and Technology curriculum at St Augustine's will give pupils the opportunity to extend their knowledge and understanding to develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world and gain a deeper technical vocabulary.

Children will be challenged to design, make, evaluate and critique their products for real life application to understand purpose and audience and review their understanding.

Children will be given opportunities to work with a variety of materials, including food and computer programming, to build a purposeful product.

Children will be asked a range of open questions to elicit their understanding and will be challenged to give detailed reasoning in their responses, where they will be expected to explain their thinking using specific technical vocabulary.

Children will be given opportunities to link their learning to other subjects, their local community and the wider world. They will be given opportunities to produce a product for a specific purpose.

### **Implementation**

We use the Plan Bee scheme of learning to help support our teachers in the planning and resourcing of Design and Technology lessons.

Our long-term planning shows teachers which order to cover the 3 yearly units across the academic year. These units are adapted to the needs of changing single and mixed year groups.

Our progression mapping document for Design and Technology shows teachers what key factual and procedural knowledge to teach pupils in each lesson and allows them to see the knowledge that has been taught previously. Design and Technology lessons are planned so that pupils build upon progressive procedural knowledge resulting in a final product which enables pupils to demonstrate their learning.

The implementation of our Design and Technology curriculum ensures a broad and balanced coverage of the National Curriculum requirements. Teachers and subject leaders ensure that embedded within all units across the yearly cycle pupils are accessing and experiencing the following areas of study and development progressively:

- Cooking and nutrition: Where food comes from, balanced diet, preparation and cooking skills
- **Mechanical systems:** Mimic natural movements using mechanisms such as cams, followers, levers and sliders
- Textiles: Fastening, sewing and decorative fabric techniques including cross stitch, blanket stitch and appliqué
- **Electrical systems:** Functional series circuits, individual circuit components, circuit diagrams and electrical products
- **Structures:** Material functional and aesthetic properties, strength and stability, stiffen and reinforce structures
- Digital world: Program products to monitor and control, develop designs with 2D and 3D CAD software

### Impact

The impact of our Design and Technology curriculum is monitored through both summative and formative assessment opportunities. All Design and Technology lessons begin with carefully planned retrieval to ensure previously taught knowledge has been embedded into long term memory.

Work and prototypes show progressive development of procedural knowledge which build towards the creation of a final product demonstrating all that has been learnt.

Pupils will leave St Augustine's with a range of skills and progressive knowledge which will enable them to succeed in their secondary education. They will possess both factual and procedural knowledge that will enable them to become keen and successful engineers and creators at secondary school.