

# St John and St James Design and Technology

*Jesus said, 'I have come that you will have life, life in all its fullness.'*



## **CURRICULUM INTENT**

At St John and St James Primary School we follow the Kapow Primary Design and Technology curriculum. Following the Design and Technology scheme of work, staff aim to inspire pupils to be innovative and creative thinkers who have an appreciation for the product design, form ideas, create, and evaluate.

## **DESIGN AND TECHNOLOGY INTENT**

At St John and St James, we want pupils to develop the confidence to take risks, through drafting design concepts, modelling, and testing as well as being reflective learners who evaluate their work and the work of others. Through the scheme of work, the aim is 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.

The 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.

## **DESIGN AND TECHNOLOGY IMPLEMENTATION**

The Kapow Design and Technology National Curriculum outlines the three main stages of the design process:

- design
- make
- evaluate

Each stage of the design process is underpinned by technical knowledge which encompasses the contextual, historical, and technical understanding required for each strand which is taken from the National Curriculum

Cooking and nutrition are given a particular focus in the National Curriculum and is 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)

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 Progression of Skills 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.

Through Kapow Primary's Design and Technology scheme, pupils respond to design briefs and scenarios that require consideration of the needs of others, developing their skills in the six key areas. Each of the 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.

The Kapow Primary scheme 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.

It is the responsibility of the Design and Technology subject leader, the Headteacher and Governors to monitor the standards of children's work and the quality of teaching in Design and Technology. The Design and Technology subject leader is also responsible for supporting colleagues in the teaching of Design and Technology, for being informed about current developments in the subject and for providing a strategic lead and direction for the subject in the school. An action plan is written and reviewed annually. The Design and Technology subject leader helps with moderation of work samples to ensure consistency and carries out 'book looks' and checks data for scrutiny and evidence of progress, with feedback being given to staff on a termly basis or where appropriate. The art and design subject coordinator monitors the quality of teaching through learning walks and drop ins. Pupil engagement is ensured through pupil voice and gallery walks. EYFS and KS1 Design and Technology lessons take place in class whereas KS2 Design and Technology lessons take place in the art room.

Extra-curricular Design and Technology clubs are offered to a range of ages and can change termly or annually.

### **DESIGN AND TECHNOLOGY IMPACT**

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 school 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, computer aided design, and products to fulfil the needs of users, 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.

- Meet the end of key stage expectations outlined in the National Curriculum for Computing.