

St James' C of E Primary School



SAINT JAMES'
Church of England School



The St James' LEARN curriculum.

L	Love Jesus	
E	Equality for Everyone	
A	Attend every day	
R	Reach for the stars	
N	Never give up	

*We are walking hand in hand with Jesus
fulfilling the potential God has given us.*

'For with God nothing is impossible'

Luke 1:37

Design and Technology Policy 2025

Luke 1:37 "For with GOD nothing shall be impossible"

Our LEARN Curriculum Key Principles:

Our **LEARN** curriculum ensures that our children are successful in learning and in life, no matter what their starting points and barriers to learning may be by:

- Promoting positive partnerships to support the families of our school who speak 15 different languages and who come from many varied faiths and none. So that ALL our pupils are settled in school and ready to **LEARN**.
- Providing nurture, emotional, financial, and spiritual support to our pupils and All stakeholders. So that families and children are fully supported and are in the best place they can be and ready to **LEARN**.
- By understanding our community and thus providing learning opportunities in environments which promote reading, oracy, and the constant development of vocabulary. So that our pupils are equipped with the skills they need to flourish in life and **LEARN**.
- By providing dedicated nurture spaces to offer emotional and practical support to meet the needs of ALL of our pupils thus allowing them to **LEARN**.
- A curriculum which will be inclusive, aspirational, and relevant and respectful to the culture and customs of our children and families. So that our children want to come to school, are engaged with their individual needs met, and experience a full and varied range of opportunities to enrich their lives and **LEARNING** experience.

Because we truly believe that '**For with God nothing is impossible**'

What is Design and Technology?

Introduction

The Early Years Foundation Stage (EYFS) follows the 'Development Matters' as the supporting guidance, however the Early Learning Goals are the end point for our children in EYFS. Children within the EYFS are exposed to design & technology through the specific area of 'expressive arts & design'. In EYFS design & technology is taught through continuous provision.

Within key stage one and two, units of design and technology lessons are sequential, allowing children to build their skills and knowledge, applying them to a range of outcomes. The formal elements, a key part of the National Curriculum, are also woven throughout units. Key skills are revisited again and again with increasing complexity in a spiral curriculum model. This allows pupils to revise and build on their previous learning. Knowledge and skills in the following areas are developed; Cooking and nutrition, Mechanical systems, Textiles, Electrical systems, Structures and Digital world.

Intent

The Design and technology scheme of work at St James aims to inspire pupils to be innovative and creative thinkers who have an appreciation for the product design cycle through ideation, creation, and evaluation. Kapow is written by experts in their field and designed to give pupils every opportunity 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.

Implementation

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. We have taken these subheadings to be our Primary strands:

- **Design**
- **Make**
- **Evaluate**
- **Technical knowledge**

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 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 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 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. 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. 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. Kapow Primary has been created with the understanding that many teachers do not feel confident delivering the full Design and technology curriculum and every effort has been made to ensure that they feel supported to deliver lessons of a high standard that ensure pupil progression.

Our lessons are based around 5 sections – please see below:

RETRIEVAL: review and activate knowledge/skills/vocab from previous lesson; previous series of lessons; previous linking of units, place learning in a wider context

HOOK: set the scene, provide the 'big picture', share learning objectives

EXPLICIT TEACHING & MODELLING: pupils receive new information; instruction/exposition (teaching) breaking down learning into small steps/modelling/scaffolding/sharing success criteria

INDEPENDENT PRACTICE & APPLY: pupils make sense of information, processing, understanding (learning)

PLENARY review information/learning

Support for SEND

Weekly Design and Technology lessons are inclusive to pupils with special educational needs and disabilities. Within the weekly Design and Technology lesson, teachers have a responsibility to not only provide support for children with SEND but also activities that provide sufficient challenge for children who are high achievers. It is the teachers' responsibility to ensure that all children are challenged at a level appropriate to their ability.

Where appropriate, support and challenge can be given in a variety of ways specific to Design and Technology. It is the teachers' responsibility to tailor resources to the needs of their children.

We support children with prior access of knowledge organisers to find key facts to use in their work. We provide opportunities to teach key vocabulary from the knowledge organiser to support the children's understanding of historical vocabulary. To cater to the needs of all pupils, staff may provide differentiated support in lessons. This is annotated onto the teacher's medium-term plans. It is important to extract relevant information from the knowledge organisers to support the achievement of the specific learning objective.

A pupil's English ability should not be a barrier to their historical knowledge and understanding. Therefore, we feel that at times it is necessary for pupil to verbalise their responses, have their work scribed when appropriate.

Children who have been identified as having gaps or misconceptions in their learning, may be subject to additional intervention to bridge gaps.

Supporting SEND areas of need in DT

Cognition and Learning	Communication and Interaction
- Differentiated worksheets or starter points provided that are appropriate for the learner. - Teacher models expected work and shows past work as examples. - When appropriate for the topic, additional visual aids are used and larger images when possible. - Knowledge Drivers are utilised in class and referred back to. Larger KD are available. Vocabulary is age appropriate. - Pupil can read and present their work if they'd prefer. Finishing a task is not the objective but the creative journey. - Tags are provided for research. - Lights are dimmed in lesson to create a calming environment. - Classroom is organised, resources are pre-prepared and given out by monitors. - Key learning reviewed throughout the lesson. - Ideas can be recorded in sketchbooks. - Pictures/photographs given to stick in sketchbooks. - Highlighters used to emphasize key vocab.	- Differentiated worksheets or starter points provided that are appropriate for the learner. - Praise given throughout lesson to reinforce good listening. - Key words on KD and displayed on the whiteboard. - Modelling/demonstrating. - Pupils names used to gain attention. - Multi-sensory approach used. Pictures, photographs, symbols, models, video and other various materials. - Practical demonstration given or video to watch. - Pupils have a clear routine. They know when to work independently or collaboratively 'buddying up' within projects.
Social, Emotional and Mental Health (SEMH)	Physical and Sensory
- Adapted worksheets. - Positive interactions as pupils work kinaesthetically with different mediums. - Lots of peer assessment and self-assessment during the lesson. Pupils show others their work. - Clear routines and definitive lesson structure adhered to at all times. Children know what is expected of them each week. - Worksheets are personalised to suit individual needs. - Lessons will be extended when appropriate to develop ideas further and avoid rushing.	- To ensure minimal copying, lesson objective and sheets stuck in sketchbooks. - Lights often dimmed and calming music put on in the classroom when children have been given the objective. - Larger fonts/pictures given where appropriate. - Pupils can choose the materials they work with to avoid unnecessary stress. - Pupils are sat in places they are comfortable with and are able to access support in.

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, 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.

Classroom Support

Teaching Assistants and helpers are used in Design and Technology to assist:

- In the classroom throughout the school by working with groups and individuals on task.
- In providing targeted and positive support to those pupils identified with difficulties.
- In providing other help, such as preparation of resources and display work.

Display

Teachers display the key vocabulary for their Design and Technology topic on their class working walls as part of their Design and Technology display. All classes have a 'Knowledge Organiser' displayed on the wall. Part of the working wall will include visual evidence of what the children will be learning – as part of ST James' school, our working walls are imperative for our children.

Monitoring

Monitoring of Design and Technology is completed by the subject lead half termly. This can be found in the LEARN curriculum monitoring file. Any feedback from monitoring is shared to staff through E mails and one to one discussions.