



Our D&T provision aims to be inspiring, rigorous, creative and practical to enable our children to design and make products with the support of the Kapow of scheme of work.



### Principles

Our Design and Technology scheme of work inspires Calton children to be innovative and creative thinkers, who have an appreciation for the product design cycle through ideation, creation and evaluation.

We want our pupils to develop the confidence to take risks, through drafting design concepts, modelling, and testing to be reflective learners who evaluate their work and the work of others.

Within our curriculum 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 designs.

### Contents and Sequencing Knowledge and Skills

These areas of learning underpin the Kapow scheme of work:

Design, Make, Evaluate and Technical Knowledge

#### Key areas of learning:

- Cooking and nutrition
- Mechanisms/ Mechanical Systems
- Structures
- Textiles
- Electrical Systems (Key Stage 2 Only)
- Digital World (Key Stage 2 Only)

Our 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. Our EYFS areas of learning support our children to work towards the Development matters statements and the Early Learning Goals.

### Progress

Kapow's scheme of work aligns with the National Curriculum by identifying four key strands which run throughout the units of work. Design, Make, Evaluate and Technical Knowledge.

The scheme of work is based upon a spiral curriculum which follows the principles above as it enables pupils to return to the key areas again and again during their learning with us at Calton. Each time a key area is revisited it increases the depth and complexity of the skills and technical knowledge.

Children's prior knowledge is utilised so pupils can build upon previous foundations, rather than beginning the concept again.

### Retrieval Practice

In using a spiral curriculum the children will be returning to prior knowledge and skills where they will be able to draw upon and utilise previous concepts.

Using the DT process symbols to help children make connections with previous projects.

#### Links with Maths and English

Lessons are instructed by the teacher although children have the opportunity to explore their ideas and designs.

- Use of labels, captions, instructional writing and explanations.
- Speaking and reasoning.
  - Numbers
  - Measuring
- Trial and Error through problem solving

### Personal Development

Our Design and Technology curriculum supports children in acquiring the knowledge, skills and understanding they need to have a future in Design and Technology. Children respond to design briefs and various scenarios that require consideration of the needs of others, developing their skills in the six key areas. Within this children are able to:

- 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.
- Understand and apply the principles of healthy eating, diets, and recipes, including key processes, food groups and cooking equipment.

### Support

Our 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.

Scaffolded guidance is available for every lesson to ensure that lessons can be accessed by all pupils and opportunities to stretch pupils' learning is also available. Knowledge organisers for each unit supports pupils in building a foundation of factual knowledge by encouraging recall of key facts and vocabulary.