

Design and technology

Intent, implementation and impact statement



This document outlines: the intent and rationale behind the Design and technology curriculum, how to deliver it and how to measure pupil progress. This information can be used to help create your school's bespoke Intent, Implementation and Impact statement, tailored to your school.



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Intent

Eagle Community Primary School uses the Kapow Primary's Design Technology scheme of work.

During Art and Design lessons at Eagle Community Primary School, our intention is to inspire pupils to be innovative and creative thinkers who have an appreciation for the product design cycle through ideation, creation, and evaluation; inspiring children and young people to create, experience, and participate in great arts and culture.

We want pupils to develop the confidence and resilience 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 global 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.

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Implementation

The implementation of the curriculum relates to how the learning is going to be delivered across your school, taking the intent of the learning, and translating it into a progressive and effective curriculum.

When using a scheme, such as Kapow Primary, the majority of this aspect is taken care of.

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 Kapow Primary strands:

- Design
- Make
- Evaluate
- Technical knowledge

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)

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.

Our National curriculum overview shows which of our units cover each of the National curriculum attainment targets as well as each of the four strands.

Our 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 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.

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Impact

This relates to how staff identify that the curriculum is having a positive impact on pupils' learning, how to identify gaps in their learning and how to fill these.

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

Assessment:

At the end of each Unit of Work, children's assessment information will be inputted into and collated on Integris.