Design and Technology: Intent, Implementation & 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.

INTENT

**School Curriculum Intent:**

For our learners our curriculum provides:

- a value-based curriculum, building from a foundation of Christian values developed at the Infant School (C of E), and enhanced at the Junior School (Community), to prepare our learners to be inclusive, respectful of themselves and others, and enable them to contribute fully within our modern, multi-cultural, British society;
- responsible citizens, successful learners and confident individuals;
- opportunities to enrich the life of our learners and provide vibrant experiences to make learning real, to open their minds to wider worlds beyond their own, and to enable them to empathise with each other, and others in different circumstances, from different backgrounds, places and times;
- a linked, language-rich curriculum to develop deep understanding and cultural capital;
- development of characteristics to enable them to contribute fully within their school and wider community, now and into the future;
- skills to develop positive relationships, and high expectations of behaviour; enabling everyone to be the best possible versions of themselves;
- a range of knowledge and skills to be equipped for the next stage of education.

At Burbage C of E Infant School, the Design and Technology scheme of work aims to inspire pupils to be innovative and creative thinkers who have an appreciation for the product design cycle through ideation, creation, and evaluation. We want children to design ideas, create and evaluate. We want pupils 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 and to work collaboratively with others. 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.

IMPLEMENTATION

School Curriculum Implementation:
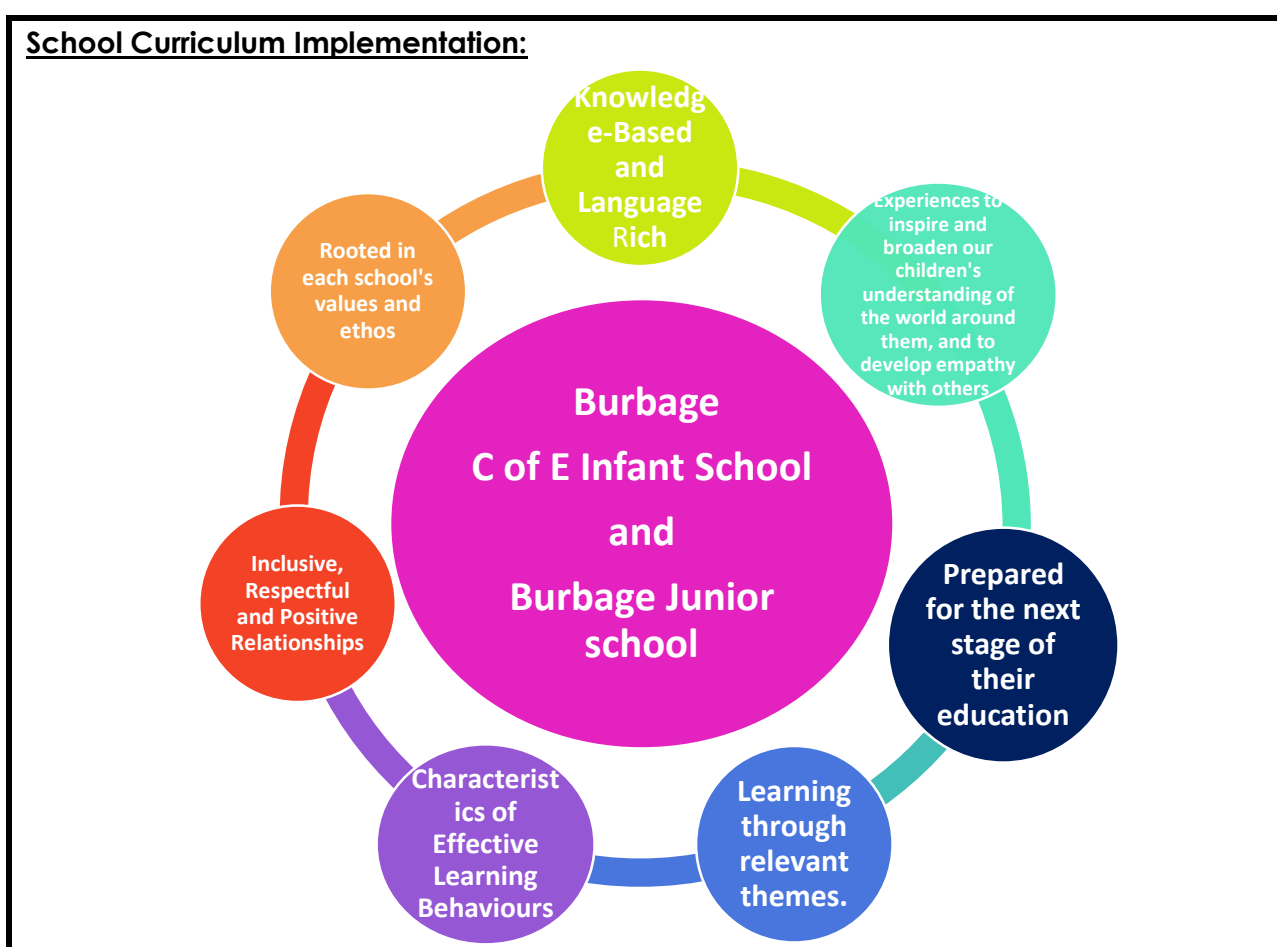
The Design and Technology National Curriculum outline the three main stages of the design process: design, make and evaluate. Each stage of the design process is underpinned by technical knowledge which encompasses the contextual, historical, and technical understanding required for each strand. Cooking 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 sub-headings and these are the Kapow Primary strands:

1. Design
2. Make
3. Evaluate
4. 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.

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 develop to ensure that attainment targets are securely met by the end of each key stage.

Cooking and nutrition is given a particular focus in the National Curriculum and we have made these 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 (Key Stage 2 only)
- Digital world (Key Stage 2 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 they 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.

IMPACT

School Curriculum Impact:	Pupils who take responsibility for their own actions and make a positive contribution to society.
Prepared for the next stage of their education	Knowledge of British and global society beyond their own through the curriculum.
	Able to use technology effectively and safely.
	Excellent behaviour and attendance.
	Healthy lifestyle choices- safe, healthy and fulfilling lives.
	All children to make good progress from their starting point.
	Pupils who enjoy learning and can independently explore and enquire.

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.

The assessment for DT is using Kapow's end of topic quizzes which can be multiple choice or children's explanation. It is a great way to consolidate children's learning for that topic and an informative teacher assessment tool.