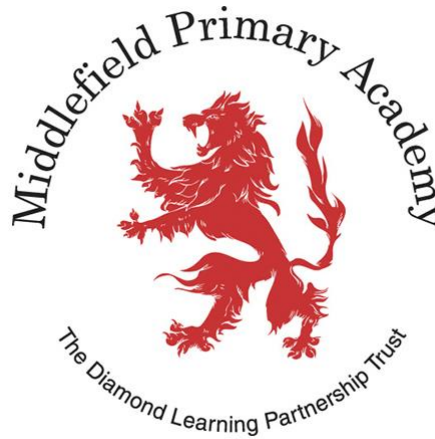




Design & Technology Intent, Implementation, Impact Statement

Intent

At Middlefield Primary Academy, we follow the Kapow scheme for Design & Technology. The scheme 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 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 the 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.

At Middlefield, the Design & Technology scheme of work supports pupils to meet the national curriculum end of key stage attainment targets. Kapow Primary is an Artsmark partner and able to support schools on their journey of inspiring children and young people to create, experience and participate in great arts and culture.

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. The Kapow DT scheme is designed around 4 main 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 has an additional focus within the Kapow scheme of work. All areas of learning are revisited throughout a child's learning in primary school and cover the following strands:

- Cooking and nutrition
- Mechanisms/ Mechanical systems
- Structures
- Textiles
- Electrical systems (KS2 only)
- Digital world (KS2 only)

The Kapow scheme enables teachers to be confident in delivering effective lessons where children revisit key areas again and again. 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.

The DT subject leader will ensure the following documentation from Kapow relating to the implementation of the curriculum is relevant and up to date:

- Long-term plans outlining the learning within each year group.
- Curriculum mapping showing progression of skills across year groups.

Other documentation related to the implementation of the curriculum:

- Knowledge organisers summarise the learning for each unit

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.

Kapow Primary's curriculum is designed in such a way that children are involved in the evaluation, dialogue and decision making about the quality of their outcomes

and the improvements they need to make. By taking part in regular discussions and decision-making processes, children will not only know facts and key information about art, but they will be able to talk confidently about their own learning journey, have higher metacognitive skills and have a growing understanding of how to improve.

At the end of each unit, the children complete an end of unit assessment known as a POP task (Proof Of Progress). The POP task is completed and assessed at a delayed time after the unit has been taught to assess depth of learning. As an enquiry topic, at the end of the unit, children 'Answer the BIG question' to acknowledge all of their learning from the unit. At the end of each half term, teacher judgements and any completed POP tasks are used to record attainment and uploaded to Insight Tracker. To ensure knowledge is retained and that cognitive pathways continue to be deepened, Retrieval Practice is completed twice per unit; this can be evidenced in books or discussed as whole class.

Periodically, throughout the academic year, the subject lead will conduct a 'Pupil Book Study', taking a selection of books from each year groups and analyse the prior learning. They will hold a focus group with children to discuss the learning and ascertain quality through vocabulary, sequencing and content.

Each lesson within Kapow's scheme features assessment guidance, helping teachers to identify whether pupils have met, exceeded, or failed to meet the desired learning intentions for that lesson.

Once complete, 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.