



DATCHET ST.MARY'S C OF E PRIMARY ACADEMY

POLICY NAME : DESIGN AND TECHNOLOGY POLICY

VISION:

We are one, we are strongest working together in unity.

1: Corinthians 12 – 14

This vision is at the heart of everything that we do. In design and technology pupils use our vision to work collaboratively together and the children develop mutual respect for the different opinions and abilities. Children are encouraged to work in a democratic way, exercising the 'give and take' required for successful teamwork.

Members of staff responsible: Emma Andrews

Intent:

Our vision at Datchet St Mary's Academy is preparing pupils for their futures through real life experiences. We will provide a happy, nurturing and challenging environment based on adventure and Christian values. At Datchet St Mary's Academy we all adhere to the school ethos which is expressed through our Christian values; love and compassion, friendship, honesty, resilience, and equality. It is our intent, that within a modern, social culture, we will prepare children with the skills and resilience required to be a confident and responsible citizen.

At Datchet St Mary's Academy our Design and Technology curriculum intends 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 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. EYFS (Reception) units provide opportunities for pupils' to work towards the Development matters statements and the Early Learning Goals.

Subject Implementation:

Our Design and technology scheme 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.

Policy produced by: E. Andrews

To be reviewed: Annually

The scheme has a clear progression of skills and knowledge within these five strands across each year group. 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 six key areas:

- Mechanisms
- Structures
- Textiles
- Food
- Electrical systems (KS2)
- Digital world (KS2)

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.

All year groups will teach Design and Technology for 3 terms and in those terms lessons will be scheduled each week. Children's work and pictures of their work will be stored in their individual DT books for reference and assessment. We want to ensure that Design and Technology is embedded in our whole school curriculum and that opportunities for enhancing learning by using design and technology are always taken.

Impact:

Our children enjoy and value Design and Technology and know why they are doing things, not just how. Children will understand and appreciate the value of Design and Technology in the context of their personal wellbeing and the creative and cultural industries and their many career opportunities. Progress in Design and Technology is demonstrated through regularly reviewing and scrutinising children's work, in accordance with our Design and Technology assessment policy to ensure that progression of skills is taking place. Namely through:

- Looking at pupils' work, especially over time as they gain skills and knowledge
- Observing how they perform in lessons
- Talking to them about what they know.

The Design and Technology curriculum will contribute to children's personal development in creativity, independence, judgement and self-reflection. This would be seen in them being able to talk confidently about their work, and sharing their work with others. Progress will be shown through outcomes and through the important record of the process leading to them.

Purpose of study

At Datchet St Marys we are dedicated to creating and delivering an exciting and engaging

design and technology curriculum, which is essentially providing pupils with the widest range of opportunities possible. Design & Technology is a fundamental subject, which educates students in how to analyse and solve problems, produce high quality solutions and learn how to convert their ideas into working products.

Aims from National Curriculum:

The national curriculum for design and technology aims to ensure that all pupils:

- Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- Build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- Critique, evaluate and test their ideas and products and the work of others · Understand and apply the principles of nutrition and learn how to cook

Early Years

The EYFS staff team will plan for children to experience creative opportunities and develop DT skills within the EYFS curriculum. Nursery and Reception classes will be included in whole school projects, workshops, events and competitions, where appropriate.

Resources

On-line DT plans and resources, produced by Kapow, are available online and also on the shared drive. All resources bespoke to year groups are in class stock cupboards. Any materials shared between year groups are stored in the stock cupboard in the Design and Technology room. Children are taught to use tools and equipment in a sensible, safe and efficient manner. It is the responsibility of the class teacher to ensure they pack away all resources in the relevant class topic box for the subject at the end of each half term and to ensure all resources, artefacts and books are well looked after in class. All communal resources should be returned to their homes so all staff can access them.

Assessment

We ensure the children

- Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- Build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users and critique, evaluate and test their ideas and products and the work of others
- Understand and apply the principles of nutrition and learn how to cook. Children will design and make a range of products. A good quality finish will be expected in all design and activities made appropriate to the age and ability of the child

Children learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and

technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

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Teachers' own formative assessments will be based on learning objectives and success criteria identified in their planning, and evaluation of lessons. Feedback is given to children in line with the school marking policy. Half termly assessments of objectives taught will be updated in our in school foundation trackers. Teachers will record children's performance against the age related objectives for the curriculum and decide whether children are working towards, at or above age related expectations. Assessments are used to inform planning and close gaps, in order to accelerate progress. Subject leaders will analyse termly data and address areas for curriculum development. Pupils' work is recorded in their DT books where pupils are able to self and peer assess.

Monitoring and Evaluation

Monitoring takes place regularly through pupil interview, work scrutiny and 360 learning reviews. The impact and measure of this is to ensure that children at Roby Park are equipped with skills and knowledge which will enable them to be ready for the curriculum at Key Stage 3 and for life as an adult in the wider world. Subject leads play an active role in the school self-evaluation cycle and throughout the year they will participate in:

- Ensure there is clear progression throughout the school
- Creation of termly data reports
- Reporting to SLT & Governors
- Pupil voice
- Work samples
- Identify any training needs and offer extra support and guidance to staff when it is appropriate
- Ensure that there are suitable resources to help with the teaching and learning of their subject

Displays

Every class will display a half termly display in the communal area outside the DT room. It will be led by the DT subject lead.

Cross-Curricular Links

High quality Design and Technology provision intrinsically links to and enhances other areas of

learning. Measuring accurately is a key Design and Technology skill and allows children to apply and consolidate their mathematical understanding. With regards to English, pupils can apply their instructional writing skills in the planning process of their Design and Technology work, as well as developing their speaking and listening skills when communicating their ideas to others. An understanding of Science, in particular forces, is essential when creating mechanisms (pulley, wheels, axles levers and linkages). Pupils will make links with Art and Design throughout the Design and Technology sessions. The ability to visually express their ideas accurately is an artistic skill. It enables children to develop their ideas, plan their project and communicate the project to others. The curriculum also requires the pupil to use their computing knowledge and skills within their design technology- providing them with real life opportunities to put their skills to practical use. Links to History and Geography topics are identified on the D&T long term plan.

Inclusion

All children will be supported through differentiation, adaptation or adult support, to enable equal access to learning in Design and Technology.

Equal Opportunities

Whole school policy on equal opportunities will be adhered to in Design and Technology activities. Teachers ensure that children have access to the range of Design and Technology activities and use opportunities within Design and Technology to challenge stereotypes. Children are encouraged and supported to develop their Design and Technology capability using a range of materials. Children with special needs or disabilities will be differentiated for and supported appropriately, to ensure development of skills and equal access to the Design and Technology curriculum.