



Our *DT* Approach

Our vision at Heymann Primary and Nursery School is for all children to develop a natural curiosity and fascination about the world around them, learning about and developing a greater understanding of how the things around them have been designed and made. Through identifying four key values that drive our whole school curriculum (Curriculum Drivers of Diversity, Emotional Intelligence, Creative Thinking and Community), we have designed our Design and Technology curriculum to provide opportunities for our children to develop these values, especially creative thinking, so that they can develop the skills they will need in an ever-changing world.

CURRICULUM DESIGN

Using the National Curriculum for Design and Technology, we have created a curriculum that focuses on building knowledge and skills from the start of the children's time in school, nursery, to the end of year 6. The building of skills year on year aims to allow all children to achieve age related expectations by the end of year 6, but to also have the skills and knowledge in preparation for secondary school design and technology. (See planning overview for details) .

We realise the importance of how the content of the curriculum needs to be sequenced for children to build on previous learning. What children learn in the Early Year's settings is the foundation for future National Curriculum learning in the following school years. Design and technology spreads across many of the areas of learning in the Early Year's curriculum including Physical development, Expressive Arts and Design and Understanding the World. Children acquire and apply knowledge and understanding of materials and components, mechanisms and control systems, structures, existing products, quality and health and safety. Design and technology education helps develop children's skills through collaborative working and problem-solving, and knowledge in design, materials, structures, mechanisms and electrical control. They are encouraged to be creative and innovative and are actively encouraged to think about important issues



such as sustainability and enterprise. Underpinning these skills are the three lenses of Designing, Making and Evaluating. In every topic that the children complete they will have the opportunity to evaluate existing products, explore how they are made and what purpose they have been made for. In addition, they will also be designers where they must understand what and why something needs to be made. Following on, the children will then make what they have designed with opportunities to make mistakes and problem solve all whilst learning the practical skills of sawing, sewing and more. The process returns to the start in a cyclical manner as the children then evaluate what they have made, much like they did at the start. They think about has their product met the aims that were set out at the start or is there any improvements that can be made. The skills learned in D&T also help with learning across the curriculum. Knowledge about the properties of materials helps in science and the practice of measuring accurately helps in maths. These skills help in computing, through the children's use of computer control and, naturally, in art and design.

	EFYS	Year 1	Year 2	Year 3
Topics	Mechanisms	• folds, flaps, pivots	• Sliders and Levers- make a moving picture	• Pneumatics-moving mascot
	Structures	• Using small and large construction equipment	• Pre-standing -playground equipment	
	Textiles	• Properties of materials	• Templates and joining-	• 2D shape to 3D product
	Food	Healthy food Tasting and diet	• Food- Preparing fruit and vegetables	• Sandwich snacks
Designing	Understand users and purposes	• say who they are making things for • Talk about how their products work	• describe what their products are for • say how their products will work • say how they will make their products suitable for their intended users • use simple design criteria to help develop their ideas	• describe what their products are for • say how their products will work • explain how particular parts of their products work • use design criteria to shape their ideas
	Ideas	• Use Ideas from imagination or the world to make	• Use own experiences in their ideas • draw ideas and explain why they have been chosen • model ideas (try materials, parts	• design a product, how it looks and works • think through ideas with someone else • model ideas using prototypes and pattern pieces

At Heymann we understand enriching the curriculum is a vital way to create enthusiasm and enable wider opportunities. Sci-Tech is just one method we choose to enrich the design technology curriculum with annual competitions based on a design brief. This competition enables children to use the skills that they have been taught in school in a different situation where they have complete creative control. We also understand that including all children in the design and technology curriculum is vitally important irrespective of background, culture or any other perceived barrier. That is why our topics are specifically chosen to appeal to all children throughout their time at Heymann and can be adapted by the teachers, where necessary, so that no child is left behind or excluded.

TEACHING

Our approach in design technology aims to make children to think like designers and engineers so that they develop an understanding that enables them to evaluate, design and make. A knowledge and understanding of a range of making skills, tools and techniques enable them to generate ideas for how to create their intended outcome. It important that these skills are taught each time in each unit to promote an understanding of the process but of



also what is technically possible. This approach also enables teachers to identify any support for children who might need more support in their technical skills. The progression of skills and revisiting them each year help children secure their knowledge and reduce the chance of a skill gap.

MONITORING OF IMPACT

Finding out about the impact of both the intent and implementation of the design and technology curriculum is timetabled. Monitoring of design and technology impact of teaching is checked regularly according to our school monitoring timetable through planning, photos and pupil interviews. To enable a level of moderation, there is a system set up where other schools in the trust can share what the children have created in their school. This allows teachers to ensure that the products that are being produced are in line with curriculum expectations. We review our curriculum regularly to make sure that it meets the needs of our children, to check that it is relevant and challenging and still excites our children, motivating them to explore how the world around them works. It

