St Mary's Design and Technology Intent, Implementation and Impact

Intent

At St Mary's, our Design and Technology curriculum will work to the expectations set out in the National Curriculum in England: Design and Technology Programmes of Study (Published 11 September 2013) for Key Stages 1 and 2, and the Early Years Foundation Stage Curriculum, 2014.

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

At St. Mary's, we believe that Design and Technology is an inspiring, rigorous and practical subject. We encourage children to use their creativity and imagination to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. Our children build and apply the knowledge and skills needed to design high quality products, developing a technical and practical expertise and a desire to critique, evaluate and test products before carrying out necessary modifications. They are encouraged to become innovators with the confidence to take risks and demonstrate originality when creating ideas. We believe that Design and Technology should provide children with a real-life context for learning. Children should be inspired by engineers, designers, chefs and architects to enable them to create a range of structures, mechanisms, textiles, electrical systems and food products with a real-life purpose whilst understanding their own responsibility to work safely, hygienically and ethically. We aim, wherever possible, to link work to other subjects such as Mathematics, Science, Computing and Art.

Implementation

At St Mary's, Design and Technology is taught through a sequence of lessons which have been planned to cover the knowledge and skills required for that particular unit from the Design and Technology Programmes of Study, within the contexts of Design, Make, Evaluate and Technical Knowledge. The curriculum is delivered through different units which show progression of skills across the year groups:

EYFS: Junk Modelling, fruit salad, playdough recipe, sliding christmas cards.
Year 1: Textiles: Puppets; Structures: Windmills; Mechanisms: Wheels and axles and Food: Fruit and Vegetables.
Year 2: Textiles: Pouches; Mechanisms: Making a Moving Monster and Food: A Balanced Diet.
Year 3/4: Mechanical systems:Pop-up Books; Food: What could be healthier? and Structure: Bridges.
Year 5: Structure: Playgrounds; Electrical systems: Steady Hand Game and Food: Come Dine with Me.
Year 6:Textiles: cushions, Electrical systems poster, Food: Eating seasonally.
Through a variety of creative and practical activities, our pupils are taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They work in a range of relevant contexts (for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment).

At the end of each unit, pupils will have created an appropriate finished product which they will then evaluate based on relevant criteria.

At the end of each term, pupils carry out Quadrant Quizzes which provide them with opportunities to revisit essential knowledge from previous units.

In the Early Years Foundation Stage, Design and Technology is introduced indirectly through activities linked to some of the seven areas of the Early Years and Foundation Stage curriculum, including Expressive Art and Design. Media and Materials is assessed at the end of the year as part of the Early Years Profile. This encourages pupils, through first-hand experiences, to explore, problem solve, observe, predict, think, make decisions and talk about the world around them.

Impact

At St. Mary's, we want our pupils to develop their imagination, their critical thinking and their understanding of the world around them through their enthusiasm for Design and Technology. We aim for our pupils to question and think innovatively about the world around them in order to design and develop their own products with a purpose in mind and to draw on skills from other subject areas, such as those within Mathematics, Art, Science and Computing.

The opportunity for constant recall strategies through the termly Quadrant Quizzes should help pupils to retain key knowledge and understanding and help to accelerate progress with the aim of all children ending their time at St. Mary's feeling confident and being successful within this subject.