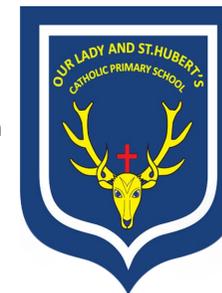




We are Engineers: Embracing Technology to Solve Problems

In this theme, children will use skills of STEM (Science, Technology, Engineering and Maths) to solve problems and create products. All children will be given a design brief to follow in order to create their own products – they will then explore the 'design, make, evaluate process' to create their products. Some children will have the opportunity to combine their products with elements of computing to develop 21st century products.



Year 6 - Alarms

Throughout this focus, children will be given a design brief to follow in order to create their own alarms – they will then explore the 'design, make, evaluate process' to create their products. Some children will have the opportunity to combine their products with elements of computing to develop 21st century products.

Through **Computing**, children will understand how to create an alarm using a Micro bit. They will focus on creating it to sense movement and how it will react in particular, thinking about the target audience and problem to solve. They will explore how to link Micro bits to Scratch and how different inputs create different outputs. Children will explore how to use a timer and operators. They will combine their exploratory sessions to finally create a password-protected alarm. In **English**, children will write about the problem through their newspaper articles and write possible solutions. They will explain how their alarm system works, by creating explanation texts. Children will follow a design specification to design, make and evaluate a casing for their alarms in **Design & Technology**, thinking about how their design can be something that is hidden/visible depending on the purpose of the alarm. They will explore nets of 3D shapes and how their design complements their alarm. Finally, through **Art**, children will learn about the work of Warhol. Not only about the artist himself, but also about his works and techniques and how he created the famous printing of Marilyn Monroe.

Children will learn about block printing and using colours to create effective pieces, often mixing colours themselves.

Theme Impact

Children will have a deeper understanding of how to use technology to solve real-life problems and how you have to consider various elements to meet the design criteria. Pupils will use creativity to create logical plans and solutions to the problem, and also use collaboration to work together with others to bring their ideas to reality. Children will have the opportunity to combine their products with elements of computing to develop 21st century products.

Catholic Social Teaching

Family and Community

Through Collective Worship, and their RE lessons, children will focus on developing their understanding of the wider family and community they have around them and in the world. They will think about the application of their virtues this half term—grateful and generous—to the wider community and about how they can make an impact on this in the world.

Application

Design brief: I must design a password-protected portable alarm for adults that can make a sound alert when drawers are opened and closed.

Children to explore own ideas in groups – this will be completed through planning, design, making and evaluating final alarm.

Enrichment

Wider Curriculum

As well as exploring the creating alarms, children will continue to learn in other areas of the curriculum alongside their theme. These areas include...

Science

Light

PE

Athletics & Netball

MFL - French

Core vocabulary lessons & Little Red

Cooking

Vegetable Lasagne

Class Reader

