



## **Design & Technology Intent**

At Endsleigh Holy Child VC Academy we aim to provide all children with a broad and balanced curriculum linked to our school values which prepares them for life beyond primary education. We aim to inspire children through a broad range of practical experiences to create innovative designs which solve real and relevant problems within a variety of different contexts, individually or as part of a team. The iterative process is fundamental and runs throughout the school. This iterative process encourages children to identify real and relevant problems, critically evaluate existing products and then take risks and innovate when designing and creating solutions to the problems. As part of the iterative process, time is built in to reflect, evaluate and improve on prototypes using design criteria throughout to support this process. We aim to, wherever possible, link work to other disciplines such as mathematics, science, engineering, computing and art. Opportunities are provided for children to evaluate key events and individuals who have helped shape the world, showing the real impact of design and technology on the wider environment and helping to inspire children to become the next generation of innovators and risk takers.

Children should be taught to:

### **Design**

- use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at a particular individual or groups;
- generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and explore diagrams, prototypes, pattern pieces and computer aided design.

## **Make**

- select from and use a wider range of tools and equipment to perform practical tasks (e.g. cutting, shaping, joining and finishing), accurately.
- select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.

## **Evaluate**

- investigate and analyse a range of existing products;
- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work;
- understand how key events and individuals in design and technology have helped shape the world.

## **Technical knowledge**

- apply their understanding of how to strengthen, stiffen and reinforce more complex structures;
- understand and use mechanical systems and in their products (e.g. gears, pulleys, cams, levers and linkages);
- understand and use electrical systems in their products (e.g. series circuits incorporating switches, bulbs, buzzers and motors);
- apply their understanding of computing to program, monitor and control their products.

## **Cooking and Nutrition**

- understand and apply the principles of a healthy and varied diet;
- prepare and cook a variety of predominantly savory dishes using a range of cooking techniques;
- understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.