

### **Engineering Curriculum Intent**

Engineering offers a huge variety of career opportunities worldwide. With the exception of a handful of countries there is a global shortage of qualified engineers. High school engineering can open the door to career opportunities both nationally and internationally, from apprenticeships to managerial roles. While the curriculum and its delivery is not aimed specifically at either gender, it is especially important to promote engineering as a potential career for girls as well as boys.

The engineering curriculum aims to build knowledge and skills to prepare students for a future career in engineering. Students will understand the different engineering sectors and the products they produce as well as career opportunities within each sector. Alongside the acquisition of knowledge, students will learn practical skills. They will learn about different engineering materials and manufacturing techniques related to each type of material. Students will have the opportunity to practice the techniques as they complete a long-term project (one per year). The project will be designed to encourage skills development and problem solving.

By the end of KS3, students will have developed skills which will be useful in everyday life as well as in their future careers, whether it is engineering related or not. Students will have developed knowledge and practical skills to form a solid foundation for the KS4 Engineering course should they choose to pursue that option.

The Engineering curriculum's aims are to inspire and motivate students to consider a career in Engineering. The curriculum will promote the academy's values through independent design and manufacturing tasks. The Engineering course will prepare students to be more competitive should they wish to follow an apprenticeship, college course or career in engineering.