

# IB Design and Technology

## HIGHER AND STANDARD LEVEL

### *What are the aims of the course?*

The course can be seen as an interface between the science and the arts, using principles from both in the design cycle. The Design Technology IB course is based upon a model of learning that incorporates knowledge, skills and design principles in problem solving contexts.

Design and Technology develops students' interdisciplinary skills and their capacity for imaginative, innovative thinking, creativity and independence.

### *What does it involve?*

Students studying Design and Technology IB at Rossall will have the opportunity to gain a broad understanding of the skills and knowledge inherent within this area of design. Students will be encouraged to develop their critical thinking, to see the relationships between designer, manufacturer and user, and to perceive the importance of the subject within the world in which we live.

Students will develop skills, particularly those in problem solving, gaining insight into the use of commercial materials, manufacturing methods and equipment through classroom based knowledge, practical application and external visits.

Students complete a design project which allows them to demonstrate their investigative, analytical, design thinking, design development, prototyping, testing and evaluation skills, and mirrors the design processes used across the various industries that integrate design practice.

## *How is it assessed?*

All Standard and Higher Level students complete a design project as an internal assessment task. Internal assessment accounts for 40% of the final mark.

At **Standard Level**, the design project requires students to identify a problem and develop a solution. It is assessed against four common criteria:

- Analysis of a design opportunity
- Conceptual design
- Development of a detailed design
- Testing and evaluation

At **Higher Level**, the design project is extended to include aspects of innovation. The design project is assessed against two additional criteria:

- Commercial production
- Marketing strategies

The Standard Level course is assessed through a multiple choice paper (Paper 1), a core paper, which consists of a short response and extended answer questions (Paper 2), and the internal assessment design project. At HL, paper one has more questions, and students answer an additional paper (Paper 3) consisting of three structured questions based on the HL extension material, one of which is based on a case study.

## *Are there any specific entry requirements?*

The course assumes no previous experience in either technology or design, allowing the course to be accessed by students from a wide background.

## *Why is it a useful qualification?*

When it comes to finding employment in your desired field, it is important that students learn and develop a number of skills: presentation, communication and, commercial skills, as well as developing entrepreneurial talent and problem solving abilities.

Employers look to hire talented students who are motivated and can work independently as well as in a team. This means it is important for students to create a good balance between the two. General and specialist IT skills, including computer-aided design abilities, are also an asset to anyone wishing to go into the more technical side of design.

Alongside the academic and technical knowledge developed through their studies, students will also gain other valuable skills, including soft skills which are becoming increasingly valued by employers, not only in the engineering and manufacturing sectors but in other sectors too.

Design and Technology at IB will allow access to a multitude of design and engineering courses ranging from Transport Design and Architecture to consumer product design, marketing, industrial design consultancy, project planning, technical sales, furniture design, CAD/CAM, interior/ exhibition design, advertising and display design.

