

# Product Design and Architecture

## CAMBRIDGE PRE-U

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

At Rossall School we offer the Cambridge Pre-U, specialising in Product Design and Architecture, this offers students opportunities for creative exploration, development and innovation. Students opting to study this course will have the opportunity to enhance their investigative and analytical skills through research, recording, development and refinement of ideas. Over the two years of the course they will build confidence in creative and practical skills through consolidated studio-based studies, beginning to understand the relationship between intellectual ideas and resolved designs.

### *What does it involve?*

As part of Product Design students will develop a balance between digital design work and hands-on materials exploration, working to design briefs and being able to demonstrate problem-solving skills in three dimensions by defining role, function, material and end user.

The design process will be evidenced through research, sampling, design development, testing, user feedback, maquettes and prototypes. Students will gain awareness of industrial design and manufacturing processes, and show design responsibility and sustainability in their work. This could include renewable resources, lean manufacturing and consideration of the end life of products.

In Environmental/Architectural design students will demonstrate an understanding of environmental or architectural contexts and design for interior and exterior space; exploring role, function, location and user needs.

Design work will be developed in the form of models, photographs and renders/drawings; these will be from live or simulated live briefs and case studies. Students will learn to research from primary sources and demonstrate spatial awareness through perspective drawing, understanding of materials, construction processes, renewable resources, life span and safety considerations.

As part of the course they will develop a knowledge of historical and contemporary designers, and range of transferable skills such as problem solving, synthesising information from a range of sources, project management, organisation and presentation skills.

The department places strong emphasis upon the use of traditional sketching and presentation techniques, alongside the use of sophisticated CAD based virtual modelling, Photoshop and rapid prototyping in the form of CNC routers and 3D printing to which our students will have access.

## *How is it assessed?*

Cambridge Pre-U in Product Design and Architecture is assessed at the end of two years. This offers students the freedom to develop maturity as a designer and time to reflect on their work before any component is assessed, enhancing confidence, interest and enjoyment in the subject.

None of the components is time limited; work being assessed without an artificial time constraint. Component 2, an illustrated essay, develops the research and analytical skills that are expected in higher education, and encourages students to become more articulate about the contexts that are shaping their own visual ideas and to understand how other designers are also influenced by the contexts in which they live.

The components and their weightings are shown below.

### **Component 1**

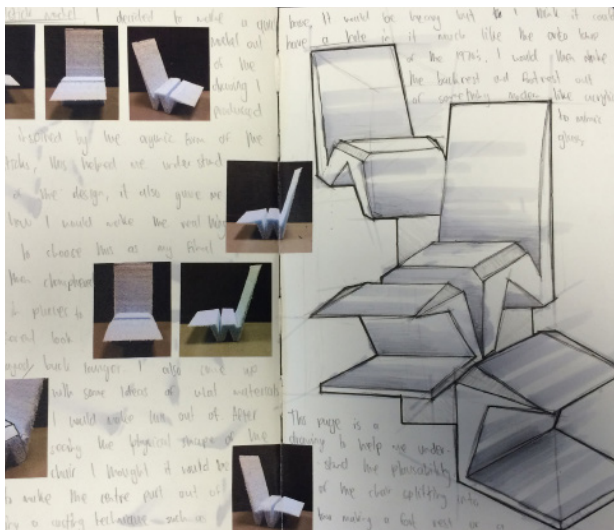
Design portfolio  
30% of A Level

### **Component 2**

Critical and Contextual Study  
30% of A Level

### **Component 3**

Design Project  
40% of A Level



## *Are there any specific entry requirements?*

The course builds on the knowledge, understanding and skills typically gained by candidates studying Design and Technology at GCSE level.

It is recommended that students beginning this course should have previously completed a qualification in art, design or technology, and should be able to demonstrate their ability and commitment to further study through a suitable portfolio of work.

## *Why is it a useful qualification?*

This course is intended to be of interest to a wide range of students including those intending to directly follow a higher education course or career in Product Design, Architecture or an associated area. Students with other interests and aspirations can also benefit from the many transferable skills inherent in the study of this subject.