GROUP 7: DESIGN
Digital and Product Design

Design, and the resultant development of new technologies, has given rise to profound changes in society, transforming how we access and process information, adapt our environment, communicate with others, solve problems, work and live. MYP design challenges students to apply practical and creative-thinking skills to solve design problems; encourages students to explore the role of design in historical and contemporary contexts; and raises students' awareness of their responsibilities when making design decisions and taking action. Inquiry and problem-solving are at the heart of design. MYP design requires the use of the design cycle as a tool, which provides: the methodology to structure the inquiry and analyze problems; the development of feasible solutions; the creation of solutions; and the testing and evaluation of the solution. In MYP design, a solution can be a model, prototype, product or system independently created and developed by students. MYP design enables students to develop not only practical skills but also strategies for creative and critical thinking.

Aims
The aims of MYP design are to encourage and enable students to:
- enjoy the design process, and develop an appreciation of its elegance and power
- develop knowledge, understanding and skills from different disciplines to design and create solutions to problems using the design cycle
- use and apply technology effectively as a mean to access, process and communicate information, model and create solutions, and to solve problems
- develop an appreciation of the impact of design innovations for life, global society and environments
- appreciate past, present and emerging design within cultural, political, social, historical and environmental contexts
- develop respect for others' viewpoints and appreciate alternative solutions to problems
- act with integrity and honesty, and take responsibility for their own actions developing effective working practices

Main Objectives
The course objectives are aligned to the four Design assessment criteria:

A) Inquiring and analyzing
In order to reach the aims of design, students should be able to:
• explain and justify the need for a solution to a problem for a specified client/target audience

• identify and prioritize the primary and secondary research needed to develop a solution to the problem

• analyze a range of existing products that inspire a solution to the problem

• Develop a detailed design brief, which summarizes the analysis of relevant research

B) Developing ideas

In order to reach the aims of design, students should be able to:
• develop a design specification, which clearly states the success criteria for the design of a solution
• develop a range of feasible design ideas, which can be correctly interpreted by others
• present the final chosen design and justify its selection
• develop accurate and detailed planning drawings/diagrams and outline the requirements for the creation of the chosen solution

C) Creating the solution
In order to reach the aims of design, students should be able to:
• construct a logical plan, which describes the efficient use of time and resources, sufficient for peers to be able to follow to create the solution
• demonstrate excellent technical skills when making the solution
• follow the plan to create the solution, which functions as intended
• fully justify changes made to the chosen design and plan when making the solution
• present the solution as a whole, either in electronic form, or through photographs of the solution from different angles, showing details

D) Evaluating
In order to reach the aims of design, students should be able to:
• design detailed and relevant testing methods, which generate data, to measure the success of the solution
• critically evaluate the success of the solution against the design specification
• explain how the solution could be improved
• explain the impact of the solution on the client/target audience