

## Design

### A - Inquiring and analysing

Students are presented with a design situation, from which they identify a problem that needs to be solved. They analyse the need for a solution and conduct an inquiry into the nature of the problem.

In order to reach the aims of design, students should be able to:

- i. explain and justify the need for a solution to a problem for a specified client/target audience
- ii. identify and prioritize the primary and secondary research needed to develop a solution to the problem
- iii. analyse a range of existing products that inspire a solution to the problem
- iv. develop a detailed design brief which summarizes the analysis of relevant research.

### B - Developing ideas

Students write a detailed specification, which drives the development of a solution. They present the solution.

In order to reach the aims of design, students should be able to:

- i. develop a design specification which clearly states the success criteria for the design of a solution
- ii. develop a range of feasible design ideas which can be correctly interpreted by others
- iii. present the final chosen design and justify its selection
- iv. develop accurate and detailed planning drawings/diagrams and outline the requirements for the creation of the chosen solution.

### C - Creating the solution

Students plan the creation of the chosen solution and follow the plan to create a prototype sufficient for testing and evaluation.

In order to reach the aims of design, students should be able to:

- i. 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
- ii. demonstrate excellent technical skills when making the solution
- iii. follow the plan to create the solution, which functions as intended
- iv. fully justify changes made to the chosen design and plan when making the solution.

### D - Evaluating

Students design tests to evaluate the solution, carry out those tests and objectively evaluate its success. Students identify areas where the solution could be improved and explain how their

solution will impact on the client or target audience.

In order to reach the aims of design, students should be able to:

- i. design detailed and relevant testing methods, which generate data, to measure the success of the solution
- ii. critically evaluate the success of the solution against the design specification
- iii. explain how the solution could be improved
- iv. explain the impact of the solution on the client/target audience.