

9th & 10th Grade Design Technology

Knowledge Content

- Design Cycle – investigation, plan, design, creation and evaluation.
- Self-assessment of projects and process
- Knowledge of the documentation of their activities and ways to organise their ways or working
- Reflect on the social significance of the product / solution and delivery to a real client.

Skills Content

- Opportunities for inventing, calculating, designing, making, constructing, operating, maintaining and repairing.
- Develop skills in operating tools and advanced machinery including CAD/CAM.
- Develop research and investigation skills to understand and find out how to solve problems and test solutions.
- Develop skills in working with wood, metal and plastics.
- Design and build simple electronic circuits, along with basic understanding of Systems Control and Robotics.
- Study effect to technology of using the design cycle.

Assessment

- Presentations.
- Planning and organisation of work independently.
- Projects culminating in a portfolio showing all evidence of student work throughout each area of the design cycle.
- Students evaluate their own work intelligently, by using the MYP Grade Description for the 5 areas. Paying close attention to the appropriate criteria, so identifying and working on areas that need attention. They also evaluate others work constructively, making positive suggestions to improve designs.

Examinations

No formal based examinations. Emphasis will be placed on presenting portfolio work (on A3) to a high standard and self/peer evaluation.

Resources

- Various tools and machinery involving wood, plastic and metal.
- Use of CAD programs and CAD based systems such as the Laser Cutter.
- Understanding and use of Robotics based technology for Systems and Control.

Prerequisites

None.

Credits

One Half Credit per year.