Technology

Metals & Plastics

SUBJECT DESCRIPTION:

Students develop their understanding of the design process and improve on their woodwork skills from previous years to plan, make and evaluate projects using a range of timbers.

The focus of assessment for this subject is:

Investigate and Design - They complete design briefs and produce technical drawings in their workbooks as a record of their planning.

Produce - They learn a variety of construction methods and processes to make their projects with a focus on how to safely use tools and machinery.

Evaluate - Finally, students use criteria developed in the design brief to evaluate the quality of their projects, their methods and identify any problems that need improvement.

Information Technology

SUBJECT DESCRIPTION:

Students will build on the skills that they developed in the Year 8 Information Technology subject in order to further develop their problem solving skills while facing various technical and design problems through the completion of two major projects.

The first major project will be the design and development of a complete web site using HTML (Hypertext Markup Language) and CSS (Cascading Style Sheet) coding languages. Students will use various programs to code their own web pages from scratch as well as populating those web pages with information and various forms of media.

The second major project will be the production of an animation using Adobe Animate CC. Students will use planning tools in the creation of character and background art, as well as storyboards, in order to produce a digital animation with a basic plot.

Throughout the process, students will learn to use a number of different programs and planning techniques in the creation of a single project outcome.

CAD

SUBJECT DESCRIPTION:

The aim of this subject is to provide students with experiences in the use of computer aided design (CAD) and computer aided machining (CAM). Students will build on the skills previously developed in the year 8 CAD program. They will use explore the production process as prescribed within Design & Technology but specialise through digital applications. Fusion 360 will be used to generate three dimensional models that will be subsequently be formed on a 3D printer.

(Note: you do not need to have completed Year 8 CAD to do this subject.)

Students will develop further skills in use of CAD drawing software. Using Adobe Illustrator and Fusion 360 students will be provided the opportunity to develop the following skills:

- Generate basic objects
- Generate complex objects with moving parts
- Create and print orthogonal views of designs
- Develop the skills and knowledge required to Prepare a CAD drawing for printing on a 3D printer.

Develop ideas, designs and drawings into physical objects that can be used, e.g. balloon powered cars