

Design and Technology **M**

Design and Technology is a course that explores design in our world and the use of various technologies to produce meaningful work that has an impact on our lives. Students explore the positive contributions of designers on individuals, society and the environment and also look at the potential negative impact that humans in design and production can have on these realms and how we can make choices to minimise these. There is a focus on sustainable use of materials, technology and techniques and students take and use this knowledge and understanding and apply it to their own unique design problems.

The Preliminary Course will involve a minimum of two design projects. Each project will place emphasis on the development of different skills and knowledge in designing and producing. Students must participate in hands-on, practical activities to achieve the outcomes of this course. In the past, projects have included a lamp, chairs, leather wallets, hand tools and designing and making furniture from materials found in a pallet. The choice of project negotiated between the class teacher and the students. Students are taught to use various specialised technologies such as the laser cutter, 3-D printer, CNC router and others that their design work may require.

Design projects involve the design, production and evaluation of a product, system or environment and include evidence of design processes recorded in a design folio. Students communicate all their design work, project management and ideas using a range of media.

The HSC Course has the majority of course time given over to the development and realisation of the Major Design Project and folio. A case study of an innovation is also completed throughout the HSC year along with other teaching and learning activities. The comprehensive study of design, and the processes of designing and producing that were studied in the Preliminary Course, are reviewed, built upon and applied to new situations.

The Major Design Project involves students identifying a real world need or market opportunity and developing a solution to this. Students can work in any design discipline, and they are to take ownership of their project from the conception of the idea to project management, research, development of design ideas, experimentation, project development, testing and evaluation. Students can choose almost anything to design and as they launch into the process they get to work with their skills (or develop new ones), gifts, areas of interest and passions.

The Preliminary Course

- Design Projects 1 and 2. Projects have included lamps, desk organisers, hand tools, furniture from recycled pallets, leather wallets and phone cases.
- Case study of a designer (student choice).

The HSC Course

- Innovation and Emerging Technologies.
- Designing and producing through the development of the Major Design Project. This project differs according to the choices of individual students based on their identified need or problem.

The major work is assessed by external markers from NESA.

For more information on Design and Technology visit the NESA website at:

<https://educationstandards.nsw.edu.au/wps/portal/nesa/11-12/stage-6-learning-areas/technologies/design-and-technology-syllabus>