

Technology

What is technology about?

People use technology to expand their possibilities, intervening in the world through the development of products, systems, and environments. To do this, they apply available intellectual and practical resources. Technology is continually changing. It is influenced by and in turn impacts upon the cultural, ethical, environmental, political, and economic factors of the day, both local and global.

Why study technology?

The aim is for students to develop a broad technological literacy that will equip them to participate in society as informed citizens. To develop such literacy, students need to experience and explore a wide range of technologies in a variety of contexts. These include control, food, communications, structural, dynamic, and bio-related technologies, along with creative design processes and materials.

Technology education connects students with a range of employment opportunities, particularly those that are enterprising and innovative by nature.

How is the learning area structured?

Students develop their technological literacy by learning in three interrelated strands: Technological Practice, Nature of Technology, and Technological Knowledge. A balanced teaching and learning programme for students will integrate all three strands, although specific units of work may focus on one or two at a time.

The **Technological Practice** strand provides opportunity for students to undertake technological practice and examine the practice of others. Technological practice includes identifying and investigating issues and existing outcomes. This requires consideration of ethics, legal requirements, protocols, codes of practice, and the needs of and potential impacts on stakeholders. Through technological practice, students develop and communicate concepts, plans, briefs, technological models, and technological outcomes.

The **Nature of Technology** strand provides opportunity for students to develop a philosophical understanding of technology, including how it is differentiated from other domains of human activity. This strand supports the development of a critical understanding of technology and allows for informed debate of historical and contemporary issues and future scenarios.

The **Technological Knowledge** strand provides opportunity for students to develop technological knowledge that is generic to all technological endeavours. Key ideas included in this strand are: functional modelling and prototyping, material use and development, and components of technological systems and how they interact.