TECHNOLOGY

By the end of **Year 3**

Technology as a human endeavour

Technology is part of our everyday lives and activities.

- Products include artefacts, systems and environments
  - *e.g. designing and making a greeting card; designing a lending system to keep track of books in a library; making an environment for a pet to live in.*
- Designs for products are influenced by purpose, audience and availability of resources
  - *e.g. forms of transport and transportation systems have changed over time; toys and games are designed to meet the needs of particular age groups.*
- Technology and its products impact on everyday lives in different ways
  - *e.g. computers, software and mobile phones have simplified everyday activities; products, including fishing boats, rods and reels, help us catch fish; shopping trolleys carry groceries.*

Information, materials and systems (resources)

Resources are used to make products for particular purposes and contexts.

- Resources have characteristics that can be matched to design requirements
  - *e.g. a website can be made more appealing by the use of bright colours and animations; selecting materials that will float to make a boat; characteristics of Australian plants affect the types of string and rope made by Indigenous peoples.*
- Simple techniques and tools are used to manipulate and process resources
  - *e.g. cutting, pasting and presenting images and text on a poster; shaping clay to make a decoration.*

By the end of **Year 5**

Technology as a human endeavour

Technology influences and impacts on people, their communities and environments.

- Different ideas for designs and products are developed to meet needs and wants of people, their communities and environments
  - *e.g. playgrounds are designed for children; community swimming pools are designed to cater for specific needs and all age groups; community centres are designed to accommodate a range of activities.*
- Aspects of appropriateness influence product design and production decisions
  - *e.g. team uniforms are designed to have specific functions and to look good; cultural protocols are followed when an Aboriginal person uses traditional designs on a product.*
- The products and processes of technology can have positive or negative impacts
  - *e.g. cars are a convenient method of transportation but impact on the environment; mining for resources can contribute to a community's economy and impact on the natural environment.*

Information, materials and systems (resources)

The characteristics of resources are matched with tools and techniques to make products to meet design challenges.

- Resources have particular characteristics that make them more suitable for a specific purpose and context
  - *e.g. selecting and using suitable information sources to investigate a game; designing shoes and uniforms based on function and aesthetics; selecting suitable materials to create an eco-friendly compost system.*
- Techniques and tools are selected to appropriately manipulate characteristics of resources to meet design ideas
  - *e.g. circulating information using electronic or paper means; selecting suitable equipment that conducts heat when melting resources.*

By the end of **Year 7**

Technology as a human endeavour

Technology influences and impacts on people, their communities and environments.

- Design and development of products are influenced by societies' changing needs and wants, and include artefacts, systems, environments and services
  - *e.g. telephone technologies continue to develop as lifestyles change and demand more time-efficient practices.*
- Product design and production decisions are influenced by specifications, constraints and aspects of appropriateness including functions, aesthetics, ethics, culture, available finances and resources, and sustainability
  - *e.g. menu design is influenced by type of cuisine, cultural theme and cost.*
- Decisions made about the design, development and use of products can impact positively or negatively on people, their communities and environments
  - *e.g. food packages can be designed and developed using recycled materials.*

Information, materials and systems (resources)

The characteristics of resources are matched with tools and techniques to make products to meet design challenges.

- Resources are selected according to their characteristics, to match requirements of design challenges and suit the user
  - *e.g. an indoor or outdoor hydroponics garden and irrigation system can be designed based on suitability of materials and characteristics.*
- Techniques and tools are selected to manipulate or process resources to enhance the quality of products and to match design ideas, standards and specifications
  - *e.g. a story can be recreated with digital media to make it more appealing.*

By the end of **Year 9**

Technology as a human endeavour

Technology influences and impacts on people, their communities and environments in local and global contexts.

- New products and technologies are designed and developed to meet changing needs and wants of intended audiences, and include artefacts, systems, environments, services and processes
  - *e.g. mobile phones and email meet the need for improved efficiency of communication methods.*
- Product design and production decisions are influenced by aspects of appropriateness and by detailed specifications, constraints and standards of production
  - *e.g. globalisation and cultural, social and political factors influence the design and development of products, as in designing canteen menus to meet the requirements of the Smart Choices strategy; accurately machining a product component to match specifications.*
- People can influence decisions made about the design, development and use of technology to change the impact on people, their communities and environments at local and global levels
  - *e.g. the design and development of energy-efficient light globes to help reduce greenhouse gases and global warming; recognising the impact that technology (mass production, high-speed sewing), culture (Indigenous perspectives, popular culture) and history (tradition, fashion trends) have had on fashion design.*

Information, materials and systems (resources)

Resources originate from different sources, exist in various forms and are manipulated to meet specifications and standards to make products.

- Characteristics of resources are compared, contrasted and selected to meet detailed specifications and predetermined standards of production to best suit the user
  - *e.g. materials can be compared to determine those most appropriate to the task, such as selecting from a variety of timbers taking account of size, strength, finish and durability; choosing from natural resources to produce a product.*
- Techniques and tools are selected, controlled and managed to manipulate or process resources to meet detailed specifications and predetermined standards of production
  - *e.g. an outdoor shelter can be designed accurately using CAD software*.