

| Foundation – Level 2 | | Levels 3 and 4 | Levels 5 and 6 |
|--|---|---|----------------|
| Technologies and Society | | | |
| Identify how people create familiar designed solutions and consider sustainability to meet personal and local community needs | Recognise the role of people in design and technologies occupations and explore factors, including sustainability, that impact on the design of solutions to meet community needs | Investigate how people in design and technologies occupations address competing considerations, including sustainability, in the design of solutions for current and future use | |
| Technologies Contexts | | | |
| Engineering principles and systems | | | |
| Explore how technologies use forces to create movement in designed solutions | Investigate how forces and the properties of materials affect the behaviour of a designed solution | Investigate how forces or electrical energy can control movement, sound or light in a designed product or system | |
| Food and fibre production | | | |
| Explore how plants and animals are grown for food, clothing and shelter | Investigate food and fibre production used in modern or traditional societies | Investigate how and why food and fibre are produced in managed environments | |
| Food specialisations | | | |
| Explore how food is selected and prepared for healthy eating | Investigate food preparation techniques used in modern or traditional societies | Investigate the role of food preparation in maintaining good health and the importance of food safety and hygiene | |
| Materials and technologies specialisations | | | |
| Explore the characteristics and properties of materials and components that are used to create designed solutions | Investigate the suitability of materials, systems, components, tools and equipment for a range of purposes | Investigate characteristics and properties of a range of materials, systems, components, tools and equipment and evaluate the impact of their use | |
| Creating Designed Solutions | | | |
| Investigating | | | |
| Explore needs or opportunities for designing, and the technologies needed to realise designed solutions | Critique needs or opportunities for designing and explore and test a variety of materials, components, tools and equipment and the techniques needed to create designed solutions | Critique needs or opportunities for designing, and investigate materials, components, tools, equipment and processes to achieve intended designed solutions | |
| Generating | | | |
| Visualise, generate, and communicate design ideas through describing, drawing and modelling | Generate, develop, and communicate design ideas and decisions using appropriate technical terms and graphical representation techniques | Generate, develop, communicate and document design ideas and processes for audiences using appropriate technical terms and graphical representation techniques | |
| Producing | | | |
| Use materials, components, tools, equipment and techniques to produce designed solutions safely | Select and use materials, components, tools and equipment using safe work practices to produce designed solutions | Apply safe procedures when using a variety of materials, components, tools, equipment and techniques to produce designed solutions | |
| Evaluating | | | |
| Use personal preferences to evaluate the success of design ideas, processes and solutions including their care for environment | Evaluate design ideas, processes and solutions based on criteria for success developed with guidance and including care for the environment and communities | Negotiate criteria for success that include consideration of environmental and social sustainability to evaluate design ideas, processes and solutions | |
| Planning and managing | | | |
| Sequence steps for making designed solutions | Plan a sequence of production steps when making designed solutions | Develop project plans that include consideration of resources when making designed solutions | |
| Achievement Standard | | | |
| By the end of Level 2, students describe the purpose of familiar designed solutions and how they meet the needs of users and affect others and environments. They identify the features and uses of some technologies for each of the prescribed technologies contexts. With guidance, students create designed solutions for each of the prescribed technologies contexts. They describe given needs or opportunities. Students create and evaluate their ideas and designed solutions based on personal preferences. They communicate design ideas for their designed solutions, using modelling and simple drawings. Following sequenced steps, students demonstrate safe use of tools and equipment when producing designed solutions. | By the end of Level 4 students explain how solutions are designed to best meet needs of the communities and their environments. They describe contributions of people in design and technologies occupations. Students describe how the features of technologies can be used to create designed solutions for each of the prescribed technologies contexts. Students create designed solutions for each of the prescribed technologies contexts. They explain needs or opportunities and evaluate ideas and designed solutions against identified criteria for success, including sustainability considerations. They develop and expand design ideas and communicate these using models and drawings including annotations and symbols. Students plan and sequence major steps in design and production. They identify appropriate technologies and techniques and demonstrate safe work practices when creating designed solutions. | By the end of Level 6 students describe some competing considerations in the design of solutions taking into account sustainability. They describe how design and technologies contribute to meeting present and future needs. Students explain how the features of technologies impact on designed solutions for each of the prescribed technologies contexts. Students create designed solutions for each of the prescribed technologies contexts, suitable for identified needs or opportunities. They suggest criteria for success, including sustainability considerations and use these to evaluate their ideas and designed solutions. They combine design ideas and communicate these to audiences using graphical representation techniques and technical terms. Students record project plans including production processes. They select and use appropriate technologies and techniques correctly and safely to produce designed solutions. | |