


Year Level Plan		Year 10		Business, Digital and Design Technologies			
Food and Fibre / Food Specialisation							
<p>Overview</p> <p>The Technologies curriculum provides students with opportunities to consider how solutions that are created now will be used in the future. Students will identify the possible benefits and risks of creating solutions. They will use critical and creative thinking to weigh up possible short-term and long-term impacts. As students' progress through the Technologies curriculum, they will begin to identify possible and probable futures, and their preferences for the future. They develop solutions to meet needs considering impacts on liveability, economic prosperity and environmental sustainability. Students will learn to recognise that views about the priority of the benefits and risks will vary and that preferred futures are contested.</p> <ul style="list-style-type: none"> • Design and Technologies, in which students use design thinking and technologies to generate and produce designed solutions for authentic needs and opportunities <p>The Australian Curriculum: Technologies will ensure that all students benefit from learning about and working with traditional, contemporary and emerging technologies that shape the world in which we live. This learning area encourages students to apply their knowledge and practical skills and processes when using technologies and other resources to create innovative solutions, independently and collaboratively, that meet current and future needs.</p> <p>The practical nature of the Technologies learning area engages students in critical and creative thinking, including understanding interrelationships in systems when solving complex problems. A systematic approach to experimentation, problem-solving, prototyping and evaluation instils in students the value of planning and reviewing processes to realise ideas.</p> <p>Brief Description of Subject</p> <p>Learning in Design and Technologies builds on concepts, skills and processes developed in earlier years, and teachers will revisit, strengthen and extend these as needed.</p> <p>By the end of Year 10 students will have had the opportunity to design and produce at least four designed solutions focused on one or more of the five technologies contexts content descriptions. There is one optional content description for each of the following: Engineering principles and systems, Food and fibre production, Food specialisations and Materials and technologies specialisations. There is an additional open content description to provide flexibility and choice. Students should have opportunities to experience creating designed solutions for products, services and environments.</p> <p>In Year 9 and 10 students use design and technologies knowledge and understanding, processes and production skills and design thinking to produce designed solutions to identified needs or opportunities of relevance to individuals and regional and global communities. Students work independently and collaboratively. Problem-solving activities acknowledge the complexities of contemporary life and make connections to related specialised occupations and further study. Increasingly, study has a global perspective, with opportunities to understand the complex interdependencies involved in the development of technologies and enterprises. Students specifically focus on preferred futures, taking into account ethics; legal issues; social values; economic, environmental and social sustainability factors and using strategies such as life cycle thinking. Students use creativity, innovation and enterprise skills with increasing confidence, independence and collaboration. Using a range of technologies including a variety of graphical representation techniques to communicate, students generate and represent original ideas and production plans in two and three-dimensional representations using a range of technical drawings including perspective, scale, orthogonal and production drawings with sectional and exploded views. They produce rendered, illustrated views for marketing and use graphic visualisation software to produce dynamic views of virtual products.</p> <p>Students identify the steps involved in planning the production of designed solutions. They develop detailed project management plans incorporating elements such as sequenced time, cost and action plans to manage a range of design tasks safely. They apply management plans, changing direction when necessary, to successfully complete design tasks. Students identify and establish safety procedures that minimise risk and manage projects with safety and efficiency in mind, maintaining safety standards and management procedures to ensure success. They learn to transfer theoretical knowledge to practical activities across a range of projects.</p>							
<p>Unit 1 - Food and fibre production: <i>Being You</i></p> <p>Students investigate and make judgments on the production of food and fibre. They critically analyse factors (including social, ethical considerations) that impact on designed solutions. They then apply design thinking as they develop a proposal for an managed environment that enhances food and fibre production in a specific context</p>		<p>Unit 2 - Food and fibre production: <i>A Sustainable World</i></p> <p>Students investigate and make judgments on the ethical and sustainable production and marketing of food and fibre. They critically analyse factors (including social, ethical and sustainability considerations) that impact on designed solutions for global preferred futures. They then apply design thinking as they develop a proposal for an innovative managed environment that enhances food or fibre production in a specific context.</p>		<p>Unit 1 - Food specialisations: <i>Make a Smart Food Choice</i></p> <p>Students investigate and make judgments on how the principles of food safety, preparation, presentation and sensory perceptions influence the creation of food solutions. They critically analyse factors - social, ethical that impact on designed solutions for global preferred futures and apply design thinking as they develop a specialised food product, service for a challenging client.</p>		<p>Unit 2 - Food specialisations: <i>Solving Food Problems</i></p> <p>Students investigate and make judgments on how the principles of food safety, preservation, preparation, presentation and sensory perceptions influence the creation of food solutions for healthy eating. They critically analyse factors (including social, ethical considerations) that impact on designed solutions for global preferred futures and apply design thinking as they develop a specialised food product, service or environment for a challenging client e.g. The Elderly.</p>	