# Year 10 - Design & Technology 2023

<table>
<tr><th colspan="3">TERM 1</th></tr>
<tr><td rowspan="3">TIMING<br>Weeks 1 – 8</td><td colspan="2">Materials Technologies – Electronics<br>A Holistic Approach<br>A holistic approach to design and technology provides a framework for the understanding of the concepts of design, and for design decisions and reflection. An awareness of the interdisciplinary nature of design provides students with opportunities to consider a broader perspective of the interrelationship of design with other areas of study. Students engage in a range of practical activities during the development of a design project.<br>Design Processes<br>This area of core content provides a framework for the application of an appropriate design process, to produce quality designed solutions. Each phase of the design process should be applied in varying depths appropriate to the design project.<br>Activity of Designers<br>This area of core content examines the activities of designers over time and across a range of focus areas. The interrelationship of enterprising activity with innovation is explored to give insights into trends and preferred futures. Problem-solving techniques that are used by designers can be applied by students to their designed solutions. The impact of technologies is investigated and evaluated as they affect individuals, society and environments.</td></tr>
<tr><td>UNIT OVERVIEW</td><td>ASSESSMENT</td></tr>
<tr><td>• Select, justify, and use appropriate technologies and available resources in the development of design projects<br>• Investigate human, technical, and environmental factors affecting design and production in design projects<br>• Identify opportunities for new and better solutions<br>• Evaluate the quality of a designed solution against criteria for success<br>• Implement and evaluate a process of design<br>• Calculate financial costs of design projects<br>• Manage materials, tools and techniques when developing a design project<br>• Evaluate the role of project management when developing a design project<br>• Generate ideas, research solutions, and employ collaborative techniques when developing creative design ideas<br>• Develop criteria for success for design projects<br>• Justify and document decisions made during development of design projects<br>• Initiate and manage action to successful completion in response to needs and opportunities when developing design projects</td><td>Task Number: 1<br>Nature of Task:<br>Written Folio and Product<br>Percentage: 25%<br>Week: Term 1, Week 8<br>Reported: Semester 1</td></tr>
<tr><td rowspan="3">TIMING<br>Weeks 9 – 10</td><td colspan="2">Design Processes<br>This area of core content provides a framework for the application of an appropriate design process, to produce quality designed solutions. Each phase of the design process should be applied in varying depths appropriate to the design project.</td></tr>
<tr><td>UNIT OVERVIEW</td><td>ASSESSMENT</td></tr>
<tr><td>• Maintain a safe work environment when producing a design project<br>• Analyse the social, financial and environmental impact of design projects<br>• Evaluate the short and long-term consequences of design projects on the individual, society and the environment</td><td></td></tr>
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# Year 10 - Design & Technology 2023

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<tr><th colspan="3">TERM 2</th></tr>
<tr><td rowspan="3">TIMING<br>Weeks 1 – 7</td><td colspan="2">Information and Communication Technologies<br>Design Processes<br>This area of core content provides a framework for the application of an appropriate design process, to produce quality designed solutions. Each phase of the design process should be applied in varying depths appropriate to the design project.<br>Activity of Designers<br>This area of core content examines the activities of designers over time and across a range of focus areas. The interrelationship of enterprising activity with innovation is explored to give insights into trends and preferred futures. Problem-solving techniques that are used by designers can be applied by students to their designed solutions. The impact of technologies is investigated and evaluated as they affect individuals, society and environments.</td></tr>
<tr><td>UNIT OVERVIEW</td><td>ASSESSMENT</td></tr>
<tr><td>• Develop a range of appropriate techniques to communicate and present design ideas to a targeted audience<br>• Design and produce solutions using ICT as appropriate<br>• Evaluate the impact of trends on society<br>• Identify how designers use ICT and emerging technologies in their work<br>• Investigate how designers respond ethically and responsibly to design issues when they develop design ideas and solutions<br>• Define and describe innovation<br>• Outline types and examples of innovation<br>• Identify the impact of past, current, and emerging technologies and innovations across a range of focus areas<br>• Assess the impact of past, current, and emerging technologies and innovation on society and environments</td><td>Task Number: 2<br>Nature of Task: Written Report and Oral Presentation<br>Percentage: 20%<br>Week: Week 7<br>Reported: Semester 2</td></tr>
<tr><td rowspan="3">TIMING<br>Weeks 8 – 10</td><td colspan="2">Activity of Designers<br>This area of core content examines the activities of designers over time and across a range of focus areas. The interrelationship of enterprising activity with innovation is explored to give insights into trends and preferred futures. Problem-solving techniques that are used by designers can be applied by students to their designed solutions. The impact of technologies is investigated and evaluated as they affect individuals, society and environments.</td></tr>
<tr><td>UNIT OVERVIEW</td><td>ASSESSMENT</td></tr>
<tr><td>• Demonstrate design ideas and solutions that are innovative and enterprising<br>• Explore the work of past and current designers in commercial, historical and industrial settings from different focus areas of design</td><td>Task Number: 3<br>Nature of Task: Cumulative Practical Assessment<br>Percentage: 10%<br>Week:<br>Ongoing -Term 2<br><br>Reported: Semester 2</td></tr>
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# Year 10 - Design & Technology 2023

<table>
<tr><th colspan="3">TERM 3</th></tr>
<tr><td rowspan="2">TIMING<br>Weeks 1 – 10</td><td colspan="2">Materials Technologies<br>Design Processes<br>This area of core content provides a framework for the application of an appropriate design process, to produce quality designed solutions. Each phase of the design process should be applied in varying depths appropriate to the design project.<br>Activity of Designers<br>This area of core content examines the activities of designers over time and across a range of focus areas. The interrelationship of enterprising activity with innovation is explored to give insights into trends and preferred futures. Problem-solving techniques that are used by designers can be applied by students to their designed solutions. The impact of technologies is investigated and evaluated as they affect individuals, society and environments.</td></tr>
<tr><td>UNIT OVERVIEW</td><td>ASSESSMENT</td></tr>
<tr><td></td><td>• Identify opportunities for new and better solutions<br>• Consider the requirements of end users and stakeholders<br>• Generate ideas, research solutions and employ collaborative techniques when developing creative design ideas<br>• Apply design thinking when developing and producing design projects for preferred futures<br>• Develop criteria for success for design projects<br>• Access, identify and summarise information and data<br>• Interpret and manipulate data to aid the development of design ideas<br>• Research appropriate materials, processes and production methods for design projects<br>• Apply and communicate research findings to design projects<br>• Analyse the social, financial and environmental impact of design projects<br>• Refine design ideas to address needs and opportunities<br>• Develop a range of appropriate techniques to communicate and present design ideas to a targeted audience<br>• Calculate material and resource requirements<br>• Select and use a variety of materials, techniques, tools and equipment appropriate to the focus area of design<br>• Justify techniques and resources being used in the creation of products, systems and environments for a preferred future<br>• Design and produce practical projects in a safe manner<br>• Document and evaluate design processes and solutions against criteria for success<br>• Justify and document decisions made during development of design projects<br>• Evaluate the short and long-term consequences of design projects on the individual, society and the environment<br>• Initiate and manage action to successful completion in response to needs and opportunities when developing design projects</td><td>Task Number:4<br>Nature of Task:<br>Self-directed Folio and Product Design<br>Percentage:25%<br>Week: Term 3, Week 10<br>Reported: Semester 2</td></tr>
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# Year 10 - Design & Technology 2023

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<tr><th colspan="3">TERM 4</th></tr>
<tr><td rowspan="3">TIMING<br>Weeks 1 – 4</td><td colspan="2">A Holistic Approach<br>A holistic approach to design and technology provides a framework for the understanding of the concepts of design, and for design decisions and reflection. An awareness of the interdisciplinary nature of design provides students with opportunities to consider a broader perspective of the interrelationship of design with other areas of study. Students engage in a range of practical activities during the development of a design project.<br>Activity of Designers<br>This area of core content examines the activities of designers over time and across a range of focus areas. The interrelationship of enterprising activity with innovation is explored to give insights into trends and preferred futures. Problem-solving techniques that are used by designers can be applied by students to their designed solutions. The impact of technologies is investigated and evaluated as they affect individuals, society and environments.</td></tr>
<tr><td>UNIT OVERVIEW</td><td>ASSESSMENT</td></tr>
<tr><td>• Define and describe enterprising activity<br>• Investigate enterprising activity as related to designers and their work within a focus area of design<br>• Understand ethical responsibilities surrounding intellectual property, trademarks and copyright<br>• Define preferred futures<br>• Explore the possibilities for preferred futures given the constraints of our current thinking, available technologies and resources identify visions and specific examples of preferred futures<br>• Justify design solutions with consideration of preferred futures<br>• Identify what changes would need to occur to achieve preferred futures<br>• Analyse some exemplary designed solutions and predict future directions for a designed solution<br>• Predict the outcome of a project and its effect on preferred futures</td><td>Task Number: 5<br>Nature of Task:<br>Yearly Examination<br>Percentage: 20%<br>Week: Week 4<br>Reported: Semester 2</td></tr>
<tr><td rowspan="3">TIMING<br>Weeks 5 – 10</td><td colspan="2">Design Processes<br>This area of core content provides a framework for the application of an appropriate design process, to produce quality designed solutions. Each phase of the design process should be applied in varying depths appropriate to the design project.<br>Activity of Designers<br>This area of core content examines the activities of designers over time and across a range of focus areas. The interrelationship of enterprising activity with innovation is explored to give insights into trends and preferred futures. Problem-solving techniques that are used by designers can be applied by students to their designed solutions. The impact of technologies is investigated and evaluated as they affect individuals, society and environments.</td></tr>
<tr><td>UNIT OVERVIEW</td><td>ASSESSMENT</td></tr>
<tr><td>• Identify opportunities for new and better solutions<br>• Initiate and manage action to successful completion in response to needs and opportunities when developing design projects<br>• Self-assess and peer-assess design processes and solutions<br>• Employ technological processes commonly used in commercial enterprises to develop design projects<br>• Generate ideas, research solutions and employ collaborative techniques when developing creative design ideas<br>• Maintain a safe work environment when producing a design project</td><td></td></tr>
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