Year 9 - Design & Technology 2023

<table>
<tr><th colspan="3">TERM 1</th></tr>
<tr><td rowspan="2">TIMING
Weeks: 1 – 11</td><td colspan="2">Agriculture – Plant Enterprise
A Holistic Approach
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.
Design Processes
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.
Activity of Designers
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
• Demonstrate an understanding of design, technology and appropriate technology
• Identify the purpose of design across a number of focus areas of design
• Outline, apply and reflect on a variety of collaborative and interdisciplinary methods when developing design solutions
• Analyse the interrelationship of design with technology
• Apply the principles of design to new situations, scenarios, problems and projects
• Explore the implications of design practices and factors that affect a project’s development
• Investigate the impact of historical and contemporary design solutions
• Understand ethical responsibilities surrounding indigenous cultural and intellectual property
• Analyse the importance of environmental sustainability practices as a design ideal in design projects, recycled
• Select, justify and use appropriate technologies and available resources in the development of design projects, materials
• Develop criteria for success for design projects
• Research appropriate materials, processes and production methods for design projects
• Undertake tests and experiments to develop design ideas
• Assess the suitability of design ideas by testing and experimenting
• Investigate how designers respond ethically and responsibly to design issues when they develop design ideas and solutions
• Develop design ideas and solutions considering ethical and responsible design practices
• Investigate the design practices and solutions developed by Aboriginal and/or Torres Strait Islander People and other Indigenous Peoples</td><td>ASSESSMENT
Task Number: 1
Nature of Task:
Cumulative Practical Assessment
Percentage: 10%
Week: Ongoing - Term 1
Reported: Semester 1</td></tr>
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<table>
<tr><th colspan="3">TERM 2</th></tr>
<tr><td rowspan="3">TIMING
Weeks: 1 – 2</td><td colspan="2">Agriculture – Plant Enterprise
Activity of Designers
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>As Term 1 – see above</td><td>Task Number: 2
Nature of Task:
Work booklet and
Practical Task
Percentage: 90%
Week: Term 2, Week 2
Reported: Semester 1</td></tr>
<tr><td rowspan="3">TIMING
Weeks: 3 – 10</td><td colspan="2">Information and Communication Technologies – Architecture
A Holistic Approach
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.
Design Processes
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>• Demonstrate an understanding of design, technology and appropriate technology
• Identify the purpose of design across a number of focus areas of design
• Apply the principles of design to new situations, scenarios, problems and projects
• Explain how the needs of individuals and society influence the development of a design project
• Consider the requirements of end users and stakeholders
• Evaluate the quality of a designed solution against criteria for success
• Employ technological processes commonly used in commercial enterprises to develop design projects
• Select and use a variety of materials, techniques, tools and equipment appropriate to the focus area of design
• Justify techniques and resources being used in the creation of products, systems and environments for a preferred future
• Design and produce practical projects in a safe manner
• Generate ideas, research solutions and employ collaborative techniques when developing creative design ideas
• Self-assess and peer-assess design processes and solutions
• Investigate career opportunities and pathways in design manufacture</td><td></td></tr>
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<table>
<tr><th colspan="3">TERM 3</th></tr>
<tr><td rowspan="3">TIMING
Weeks: 1 – 2</td><td colspan="2">Information and Communication Technologies – Architecture
Activity of Designers
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>See above – Term 2</td><td>Task Number: 3
Nature of Task:
Folio and Practical Task
Percentage: 40%
Week: Term 3, Week 2
Reported: Semester 2</td></tr>
<tr><td rowspan="3">TIMING
Weeks: 3 – 10</td><td colspan="2">Materials Technologies - Polymers
A Holistic Approach
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.
Activity of Designers
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>• Apply a holistic approach by considering the factors affecting design and production in a design project
• Analyse the needs of a design project and end-user aspirations
• Explain how the needs of individuals and society influence the development of a design project, for example:
• Predict the outcome of a project and its effect on preferred futures
• Establish and document the requirements and design considerations for a design project undertake tests and experiments to develop design ideas
• Undertake tests and experiments to develop design ideas
• Assess the suitability of design ideas by testing and experimenting
• Refine design ideas to address needs and opportunities
• Experiment to optimise solutions for design projects
• Employ technological processes commonly used in commercial enterprises to develop design projects
• Develop design ideas and solutions considering ethical and responsible design practices
• Evaluate and explain the impact of past, current and emerging technologies on the individual, society and environments, people with disability</td><td></td></tr>
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<table>
<tr><th colspan="3">TERM 4</th></tr>
<tr><td rowspan="3">TIMING
Weeks: 1 – 3</td><td colspan="2">Materials Technology – Polymers
Design Processes
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<tr><td>UNIT OVERVIEW</td><td>ASSESSMENT</td></tr>
<tr><td>See above – Term 3</td><td>Task Number: 4
Nature of Task:
Folio and Practical Product
Percentage: 40%
Week: Term 4, Week 3
Reported: Semester 2</td></tr>
<tr><td rowspan="3">TIMING
Weeks: 4 – 6</td><td colspan="2">A Holistic Approach
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.
Design Processes
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<tr><td>UNIT OVERVIEW</td><td>ASSESSMENT</td></tr>
<tr><td>• Analyse the importance of environmental sustainability practices as a design ideal in design projects
• Investigate how designers respond ethically and responsibly to design issues when they develop design ideas and solutions
• Apply the principles of design to new situations, scenarios, problems and projects
• Explain how the needs of individuals and society influence the development of a design project
• Establish and document the requirements and design considerations for a design project undertake tests and experiments to develop design ideas
• Investigate the design practices and solutions developed by Aboriginal and/or Torres Strait Islander People and other Indigenous Peoples
• Describe how industrial practices and workplace legislation have an impact on design and production
• Analyse the importance of environmental sustainability practices as a design ideal in design projects
• Analyse the social, financial and environmental impact of design projects</td><td>Task Number: 5
Nature of Task:
Yearly Examination
Percentage: 20%
Week: Term 4, Week 6
Reported: Semester 2</td></tr>
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<tr><td rowspan="3">TIMING
Weeks: 7 - 10</td><td colspan="2">Design Processes
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<tr><td>UNIT OVERVIEW</td><td>ASSESSMENT</td></tr>
<tr><td>Design and produce practical projects in a safe manner
Employ technological processes commonly used in commercial enterprises to develop design projects,
Select and use a variety of materials, techniques, tools and equipment appropriate to the focus area of design</td><td></td></tr>
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