

**Structure:** Three lessons a week for half a year. Students develop a portfolio of work exploring Product & Spatial Design topics. The design process encompasses ideation, exploration, development, and the production of design ideas into workable outcomes that serve a purpose. Key competencies and the Rangi Graduate dispositions and values are embedded in all learning activities.

**Rationale:** Tikanga, voice, purpose, knowledge, and visual communication are all vital components that create the skills and capabilities of all designers. These components encourage learners to bring their own strengths, talents, tastes and styles with them as valued assets and contributions.

**Learning Objective:**

- Investigate knowledge of designing and design principles.
- Develop design thinking through generating, exploring and communicating design ideas.
- Develop skills in drawing and layout.

Topic framework	Learning outcomes	Evidence of learning	Resources
<p><b>4 Units of work:</b> Creative thinking exercises</p> <p>Ideation</p> <p>Spatial Design – ‘Green House’</p> <p>Product Design – ‘Sensory Toy’</p> <p>Units of work consist of three hours per week for practical and theory tasks.</p>	<p><b>Understand</b></p> <ul style="list-style-type: none"> <li>• Understand that the purpose of design is to enhance people's lives and their environments using aspects of kaitiakitanga, hauora, alofa, and empathy.</li> <li>• Understand that designing is the consideration of divergent and convergent possibilities in ways that are purposeful to a spatial design context.</li> <li>• Understand how design principles of aesthetics and function are used in their own design thinking.</li> <li>• Understand that drawing is the communication of design thinking through media, materials, equipment, and drawing systems.</li> </ul> <p><b>Know</b></p> <ul style="list-style-type: none"> <li>• Students will develop the practice of generating design ideas that explore possibilities beyond first thoughts.</li> <li>• Students will use both divergent and convergent thinking in developing design outcomes.</li> <li>• Students will develop knowledge and visual skills in generating, exploring and communicating design ideas.</li> <li>• Students will engage with decision-making that is connected to people and design knowledge in developing design outcomes.</li> <li>• Students will use visual communication and visual presentation techniques to represent the qualities of their design ideas and outcomes.</li> <li>• Students will develop good practice in the attribution and acknowledgement of sources when using third-party content.</li> </ul> <p><b>Do</b></p> <ul style="list-style-type: none"> <li>• Students will be able to sketch using 2D &amp; 3D drawing techniques.</li> <li>• Students will show skill in developing unique forms through ideation &amp; modelling.</li> <li>• Students will use photo manipulation software to convey design ideas.</li> </ul>	<p>Ongoing teacher feedback &amp; feedforward.</p> <p>Ākonga involvement in discussions, class critiques and activities.</p> <p>Ākonga reflections.</p> <p>A3 folio of work that showcases student learning over the term.</p>	<p>OneNote</p> <p>Physical exemplars provided as/when necessary</p> <p>Drawing exercises &amp; resources available as/when needed</p> <p>Practical drawing demonstrations</p>

	<ul style="list-style-type: none"> <li>• Students will explore a range of materials used in modelling 3D forms</li> <li>• Students will use 3D modelling software to explore and visualise design ideas.</li> <li>• Students will use rendering techniques to give shape, form, materials and textural details to ideas.</li> <li>• Students will learn to plan and layout 2D interior spaces.</li> <li>• Students will sketch 3D interior pictorials and exterior views and elevations.</li> </ul>		
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Rangi Values	Graduate Dispositions
<p><b>Respect</b></p> <ul style="list-style-type: none"> <li>• Respect shown to design tikanga, and practices from te ao Maori and indigenous cultures.</li> <li>• Respectfully develop an understanding of the people and places students design for.</li> <li>• Show respect and consideration of the ideas of other students when discussing ideas during class critiques.</li> <li>• Give fair acknowledgement to the designers whose work students draw from, reimagine, and are inspired by.</li> </ul> <p><b>Arhoa</b></p> <ul style="list-style-type: none"> <li>• Build from each other's strengths and talents with respect and empathy.</li> <li>• Engage in critical inquiry in order to understand and empathise with the user to better meet their needs.</li> <li>• Ākonga can examine, critique, and be influenced by the perspectives and inputs of others in a supportive, and collaborative learning environment.</li> </ul> <p><b>Endeavour &amp; Enthusiasm</b></p> <ul style="list-style-type: none"> <li>• Develop skills and confidence in presenting ideas and opinions to peers, community, whānau, and the potential users of design outcomes.</li> <li>• Students will develop resilience and confidence through feedback and critique of design decisions, reframing 'mistakes' as valuable learning opportunities. Over time, students will be able to convey their personal aspirations with a clearer vision of the pathways available to them as designers.</li> </ul> <p><b>Generosity of Spirit</b></p> <ul style="list-style-type: none"> <li>• Practise collaboration and critique peers constructively within the learning environment.</li> <li>• Consider the ideas of other students.</li> </ul>	<p><b>Be You!</b></p> <p>Product &amp; Spatial design encourages students to explore how designers bring their own unique voice that draws from their personal experiences, cultures, values, and perspectives as well as those of other people, with particular attention given to personal perspectives. Students are encouraged to share their personal perspectives, background stories and creative heritage they bring to their work.</p> <p><b>Be the change</b></p> <p>Product &amp; Spatial design encourages students to develop connections with their audiences and users to resolve issues in ways that translate into valuable industry skills. Students of Product &amp; Spatial design are encouraged to design for their communities and to see the potential lying in everyday situations and environments. Ākonga will ask questions, propose scenarios, and reframe perceptions to generate ideas while using design tools and technologies. Students will engage with hands-on, practical exercises which will allow them to think about the function and purpose of design outcomes. They will learn about 'how stuff works' and how old design ideas can be built upon to inspire and create innovative new solutions.</p> <p><b>Belong</b></p> <p>Understand that the purpose of design is to enhance people's lives and their environments using aspects of kaitiakitanga, hauora, alofa, and empathy. Product &amp; Spatial design students will engage with decision-making that is connected to people, places, cultures, and design knowledge in developing design outcomes. Students will understand that collaboration and teamwork can inspire new ideas.</p>

- Build from each other's strengths and talents with respect and empathy.

**Integrity**

- Connect with place and the whakapapa of the people they are designing for.
- Develop the confidence to reflect on and commit to their ideas.
- Know when to take risks and when to follow established procedure to achieve the best results.
- Take ownership of their own processes and ways of working, including the curation of their design portfolios.

**Literacy**

A full subject specific vocab list is provided to students  
Ongoing discussion and explanation of subject specific literacy throughout the project as and when needed.

**Connections**

Design and Visual Communication integrates with the other Technology subjects of Digital Technologies, Computer Science, and Materials and Processing Technology. Students who take more than one Technology subject will have the opportunity to further refine their design thinking and to apply it in diverse contexts.

Knowledge from the Learning Areas of Science and Mathematics and Statistics will support students in their development of ideas and provide a good understanding of materials and physical principles when designing for fit for purpose outcomes.

The subjects of History, Pacific Studies, Geography, and Social Studies will support students to meaningfully incorporate their learning of place into their design ideas.

Design and Visual Communication connects well with the Social Sciences Learning Area, with a focus on finding solutions that work for people and the environment, while at the same time, incorporating historical or culturally-based knowledges.

Health Studies will support the development of design ideas that seek to improve others' wellbeing and that keep considerations of people at the centre of their design thinking.

The creative skills developed in Visual Arts will complement those learnt in Design and Visual Communication and will support students to develop their ability to communicate ideas visually in different contexts.

**Assessment**

Summative assessment on completion of folio

Written report to parents.

