

Years 1–2 Design and Technologies Curriculum and assessment plan

Example

Level description	Context and cohort considerations
<p>By the end of Year 2 students should have had the opportunity to create 3 types of designed solutions, and addressed each of these 2 technologies contexts:</p> <ul style="list-style-type: none"> • Engineering principles and systems; Materials and technologies specialisations • Food and fibre production; Food specialisations. <p>Students should have opportunities to experience designing and producing products, services and environments. There are rich connections to Digital Technologies, and other learning areas, including Science and Humanities and Social Sciences.</p> <p>Students explore and investigate technologies – tools, equipment, processes, materials, systems and components – including their purposes and how they meet personal and social needs within local settings. Students learn about how society and environmental sustainability factors influence design and technologies decisions. They begin to consider the impact of their decisions and of technologies on others and the environment.</p> <p>They evaluate designed solutions using questions such as: How does it work? What purpose does it meet? Who will use it? What do I like about it? How can it be improved? They reflect on their participation in a design process. This involves students developing new perspectives and engaging in different forms of evaluating products, services and environments based on their personal preferences.</p> <p>Students use a range of technologies to communicate and explain design ideas, including drawings and models. They label drawings and draw objects as 2-dimensional images from different views.</p> <p>They plan steps, follow directions and manage their own role to complete their own or group design projects. Students are aware of the need to work safely and cooperatively when making designed solutions.</p>	<p>Design and Technologies is timetabled for one hour each week, for one term in Year 1 and one term in Year 2. It is facilitated by a classroom teacher in a regular classroom space.</p> <p>For Unit 1, a visit to a local farm is planned. If this excursion is unable to proceed (e.g. due to weather), it will be replaced with an interaction with a farmer via video link.</p> <p>Note: Digital Technologies is also studied for one term each year.</p>


Unit 1 — Farming for food	Unit 2 — Cards that pop
<p>Timing: Year 1, Term 3 Duration: 10 weeks</p> <p>In this unit, students explore the question, ‘How does food get to my plate?’. They learn about where their food comes from, and the processes involved in food production. They also begin to understand the impact of food decisions on themselves and the environment.</p> <p>Students explore texts to learn how plants and animals are grown on farms and then harvested for food, clothing and shelter. They explore farming tools and technologies used on different types of farms (e.g. agricultural farm, dairy farm) by viewing images and videos. In addition, students visit a local farm or interact with a farmer via video link to explore how farm design and sustainability decisions meet their own and community needs. These could include decisions to plant in rows for ease of harvesting and to use water conservation systems, e.g. drip irrigation.</p> <p>As a practical component of the unit, students choose a quick-growing seed or seedling (e.g. green beans, radish) to plant and grow in an individual edible garden. To do this, they establish a mini garden (environment) out of a reused container (e.g. small ice cream tub) to grow this food. Students access teacher-selected online sources to investigate how their chosen food can be prepared for eating. A digital tool (e.g. a word-processing program) is then used to design an information label for their mini edible garden, promoting a way to use this food to the school community (service). As an example, students may suggest serving green beans with dip as a snack or steamed as a side dish for dinner.</p>	<p>Timing: Year 2, Term 3 Duration: 10 weeks</p> <p>When students explore engineered designed solutions, they investigate questions such as: How does it work? What purpose does it meet? Who will use it? What do I like about it? How can it be improved? In asking and answering these questions, they are developing simple engineering understandings and the foundations of design thinking in order to produce their own designed solutions.</p> <p>In this unit, students explore movement when making simple craft products (e.g. chatterbox, jumping frog, moving caterpillar, pinwheel), using recycled materials where possible. They use techniques such as concertina folds to create springs and materials such as split pins to show rotation. For one craft product, they use a digital tool (e.g. a drawing application) to generate and communicate their design ideas. Students evaluate and share the success of their design ideas and solutions with their peers.</p> <p>Students consider how greeting cards meet personal and social needs. They consider how card designs can achieve different outcomes, e.g. by creating humour. Students explore front and inside views and moving components of pop-up greeting cards and evaluate them based on personal preferences. They consider the lifespan of greeting cards and identify how recycled materials could be used in their constructions to limit environmental impact.</p> <p>As a practical aspect of the unit, students design and produce thank you cards (product) to show appreciation to members of the school community, e.g. teachers who led clubs, teacher aides who supported the class, canteen volunteers. They design and create their cards, which incorporate moving components, using recycled materials where possible.</p>

Unit 1— Farming for food		Unit 2 — Cards that pop			
Assessment 1 — Edible garden project		Term/week	Assessment 2 — Thank you card project	Term/week	
Assessment	<p>Students produce a mini edible garden, including a weather-safe food information label. They choose a preferred seed or seedling to plant and investigate how this plant can be prepared for eating. Students follow sequenced steps to safely produce their mini edible garden. They select from information label design ideas and design and produce a food information label that promotes their food, through an annotated digital drawing.</p> <p>Throughout the process of creating gardens and labels, teachers observe students and ask questions.</p> <p>Technique: Project</p> <p>Mode: Multimodal</p> <p>Conditions:</p> <ul style="list-style-type: none"> labelled two-dimensional drawing on A4 paper designed solution spoken/signed description using sentence starters 	Term 3 Week 10	<p>Students produce a thank you card as a designed solution. They select ideas from existing pop-up greeting card designs to design their own pop-up thank you card, by labelling drawings of different views (front, inside). Students follow sequenced steps and use construction materials to safely produce their pop-up thank you card.</p> <p>Throughout the process of creating cards, teachers will observe students and ask questions.</p> <p>Technique: Project</p> <p>Mode: Multimodal</p> <p>Conditions:</p> <ul style="list-style-type: none"> labelled two-dimensional drawings of front and inside views designed solution spoken/signed answers 	Term 3 Week 10	
	Achievement standard	By the end of Year 2 students describe the purpose of familiar products, services and environments. For each of the 2 prescribed technologies contexts they describe the features and uses of technologies and create designed solutions. Students select design ideas based on their personal preferences. They communicate design ideas using models and drawings and follow sequenced steps to safely produce designed solutions.		By the end of Year 2 students describe the purpose of familiar products, services and environments. For each of the 2 prescribed technologies contexts they describe the features and uses of technologies and create designed solutions. Students select design ideas based on their personal preferences. They communicate design ideas using models and drawings and follow sequenced steps to safely produce designed solutions.	
	Moderation	<p>Consensus:</p> <p>Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.</p>		<p>Calibration:</p> <p>Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.</p>	

Content descriptions	Unit		Content descriptions	Unit	
Knowledge and understanding	1	2	Processes and production skills	1	2
<p>Technologies and society</p> <p>identify how familiar products, services and environments are designed and produced by people to meet personal or local community needs and sustainability</p> <p>AC9TDE2K01</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<p>Generating and designing</p> <p>generate and communicate design ideas through describing, drawing or modelling, including using digital tools</p> <p>AC9TDE2P01</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Technologies context: Engineering principles and systems; Materials and technologies specialisations</p> <p>explore how technologies including materials affect movement in products</p> <p>AC9TDE2K02</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>Producing and implementing</p> <p>use materials, components, tools, equipment and techniques to safely make designed solutions</p> <p>AC9TDE2P02</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Technologies context: Food and fibre production; Food specialisations</p> <p>explore how plants and animals are grown for food, clothing and shelter</p> <p>AC9TDE2K03</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Evaluating</p> <p>evaluate the success of design ideas and solutions based on personal preferences and including sustainability</p> <p>AC9TDE2P03</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>explore how food can be selected and prepared for healthy eating</p> <p>AC9TDE2K04</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Collaborating and managing</p> <p>sequence steps for making designed solutions cooperatively</p> <p>AC9TDE2P04</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

General capabilities	Unit	
	1	2
Critical and creative thinking	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Digital literacy	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Ethical understanding	<input type="checkbox"/>	<input type="checkbox"/>
Intercultural understanding	<input type="checkbox"/>	<input type="checkbox"/>
Literacy	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Numeracy	<input type="checkbox"/>	<input type="checkbox"/>
Personal and social capability	<input type="checkbox"/>	<input type="checkbox"/>

Cross-curriculum priorities	Unit	
	1	2
Aboriginal and Torres Strait Islander histories and cultures	<input type="checkbox"/>	<input type="checkbox"/>
Asia and Australia's engagement with Asia	<input type="checkbox"/>	<input type="checkbox"/>
Sustainability	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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