



SAMPLE TEACHING AND LEARNING OUTLINE

TECHNOLOGIES

DESIGN AND TECHNOLOGIES: FOOD SPECIALISATIONS

YEAR 5

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Disclaimer

Any resources such as texts, websites and so on that may be referred to in this document are provided as examples of resources that teachers can use to support their teaching and learning programs. Their inclusion does not imply that they are mandatory or that they are the only resources relevant to the learning area syllabus.

This document is an introduction to planning a teaching and learning outline with syllabus content for Year 5 Design and Technologies: Food specialisations context. It provides suggested sequencing and timing for teaching the syllabus content, giving students the opportunity to study at least one of the contexts for Design and Technologies. For further details on curriculum requirements and available options, teachers should refer to the School Curriculum and Standards Authority's (the Authority's):

- *Policy Standards for Pre-primary to Year 10: Teaching, Assessing and Reporting*
- Table 1: *Western Australian Curriculum and Assessment Outline: curriculum requirements and available options.*

Schools may choose to teach the syllabus content for two hours per week for a semester, **or** one hour per week for the year. Sample plans provide a range of possible learning experiences from which assessment should be drawn. This *Year 5 Sample Teaching and Learning Outline* provides teachers with possible learning experiences over eight weeks and unpacks the syllabus content to support teachers in their understanding.

A presentation (*Western Australian Curriculum Technologies Presentation*), which unpacks the process to develop this plan, is available on the Presentations page of the [Authority website](https://k10outline.scsa.wa.edu.au/home/resources/presentations) (<https://k10outline.scsa.wa.edu.au/home/resources/presentations>).

Year 5 Syllabus Content – Design and Technologies: Food specialisations context

Content	Description
Technologies and society	How people address competing considerations when designing products, services and environments
Food specialisations	Food safety and hygiene practices
Investigating and defining	Define a problem, and set of sequenced steps, with users making a decision to create a solution for a given task Identify available resources
Designing	Develop and communicate alternative solutions, and follow design ideas, using annotated diagrams, storyboards and appropriate technical terms
Producing and implementing	Select, and apply, safe procedures when using components and equipment to make solutions
Evaluating	Develop negotiated criteria to evaluate and justify design processes and solutions
Collaborating and managing	Work independently, or collaboratively when required, to plan, safely develop and communicate ideas and information for solutions

Year Level Description

Learning in Design and Technologies builds on the range of concepts, skills and processes developed in previous years.

In Year 5, students have opportunities to learn about technologies in society through different technology contexts as they create solutions in at least one of the following technologies contexts: Engineering principles and systems; Food and fibre production; Food specialisations; and Materials and technologies specialisations. Students are provided with opportunities to produce products and develop an understanding that designs for services and environments meet community needs.

Students have opportunities to explore technologies that incorporate materials, components, and equipment used in the home and wider community. They continue to consider society, cultural needs and environmental factors, paying attention to sustainable practices. Students question why and for whom technologies are developed.

Students begin to engage with ideas beyond the familiar, exploring how the people working in a range of technologies contexts contribute to society. They are provided with opportunities to explore innovative design solutions that build on their own design capabilities.

Using a range of techniques, students explore how to represent objects and ideas in a variety of forms, such as thumbnail sketches, models, drawings, diagrams and storyboards to communicate the development of designed solutions.

Year 5 Learning Area: Technologies – Design and Technologies (context: Food specialisations)

Year 5 Achievement Standard

At Standard, students identify ways people address and overcome competing considerations when designing products, services and environments. In Engineering principles and systems, students distinguish various ways forces control movement, sound or light in a product or system. In Food and fibre production, students identify ways people in design and technology occupations aim to increase the efficiency of production systems or consumer satisfaction of food and natural fibre products. In Food specialisations, students identify and implement a variety of food and hygiene practices. In Materials and technologies specialisations, students outline and apply suitable and safe practices and are able to classify the characteristics and properties of a range of materials and components.

With all Design and Technologies contexts, students define a problem, identify available resources and create sequenced steps to assist in decision making for a given task. They develop and communicate alternative solutions, and use annotated diagrams, storyboards and appropriate technical terms when following design ideas. Students select and apply safe procedures when using components and equipment. They develop negotiated criteria to evaluate and justify design processes and solutions. Students work independently, or collaboratively, to plan, safely develop and communicate ideas and information.

Weeks	Syllabus content	Content unpacked	Suggested teaching and learning experiences
1	<p>Investigating and defining Define a problem, and set of sequenced steps, with users making a decision to create a solution for a given task</p> <p>Identify available resources</p> <p>Food specialisations Food safety and hygiene practices</p>	<ul style="list-style-type: none"> Break down features of the given task. Define the problem (product proposal, design brief) and relate to: <ul style="list-style-type: none"> food safety hygiene practices. Identify available resources, such as: <ul style="list-style-type: none"> services, including government agency (Department of Health), Knowledgeable Other or guest speaker primary/secondary resources components, equipment and tools for each resource identified, consider suitability, availability, cost, ease of use, location etc. Set of sequenced steps: <ul style="list-style-type: none"> given, such as recipe instructions break down steps within a sequence develop own set of sequenced steps. Create possible solution: <ul style="list-style-type: none"> identify possible, appropriate options consider a prototype review time, cost, skill constraints etc. 	<ul style="list-style-type: none"> Research information to understand and define food safety and hygiene practices. Investigate the associated consequences of not adhering to the relevant protocols regarding food safety and hygiene practices. Invite a guest speaker from the local health department or relevant community organisation/local industry/workplace to discuss: <ul style="list-style-type: none"> the purpose of effective food safety and good hygiene practices associated problems, specifically for home, school or a local industry/workplace, of not following recommended protocols relevant and appropriate practices and solutions for home and school, such as the school canteen. Establish a clear understanding of food safety and food hygiene practices. Develop a list of food safety and hygiene practices and differentiate characteristics for each list. Compare the difference between food safety and hygiene practices. Make decisions regarding food safety and food hygiene practices for the given task. <p>Further materials to support planning for teaching and learning is available on the Judging Standards page of the Authority website (https://k10outline.scsa.wa.edu.au/home/assessment/judgingstandards).</p>
2–4	<p>Technologies and society How people address competing considerations when designing products, services and environments</p> <p>Designing Develop and communicate alternative solutions, and follow design ideas, using annotated diagrams, storyboards and appropriate technical terms</p> <p>Collaborating and managing Work independently, or collaboratively when required, to plan, safely develop and communicate ideas and information for solutions</p>	<ul style="list-style-type: none"> Identify competing considerations, such as decision-making, priorities, lists etc. Consider design features for: <ul style="list-style-type: none"> products, such as size, colour, texture, ease of use etc. services, such as perceived benefits of the service, time frame and availability of a service and users of the service environments, such as: <ul style="list-style-type: none"> inside space, such as kitchen, wet area, home outside space, such as park, verandah, car park. Develop design ideas, such as: <ul style="list-style-type: none"> colour, size, shape, text/font design annotated diagrams/sketches storyboards. Communicate alternative solutions with partner or group. Include appropriate technical terms. Skills required to work collaboratively: 	<ul style="list-style-type: none"> Consider a solution to promote food safety and hygiene practices at home, school or for a particular local industry and/or workplace, using products such as a: <ul style="list-style-type: none"> fridge magnet poster badge. Identify perceived benefits of the service, for example, improved safe food handling practices at school and at home. Identify features of the environment for which the solution is designed; for example, kitchen, school, home, commercial/retail environment, outdoor space, other. Identify both the relevant food safety and food hygiene requirements of the environment for the developed solution. Consider the elements of design when looking at a series or collection of work: <ul style="list-style-type: none"> exemplify a series of posters, cards or other collections of work that exemplify the concept of a series identify common design features that connect items within the series. Develop design solutions for the given task. With a partner, plan a series of two fridge magnets to promote food safety and hygiene practices in the home: <ul style="list-style-type: none"> incorporate design ideas to include the shape, colours, fonts and their size, images and information to be placed on to the fridge magnets and develop annotated diagrams, storyboards etc. consider available resources and discuss the suitability of each feature for the solution. Examples may include, but are not limited to, colour, font, graphics, shape etc. Collaborate with a partner to select relevant design features and technical elements to be applied to the products (fridge magnets) to ensure a series is produced.

Weeks	Syllabus content	Content unpacked	Suggested teaching and learning experiences
		<ul style="list-style-type: none"> ▪ goal setting ▪ share ideas/information ▪ plan together – allocate roles/tasks ▪ communication ▪ workload ▪ time management. 	<ul style="list-style-type: none"> • Collaborate to develop a storyboard or other suitable planning mechanism to illustrate the design concept. • Plan individually to develop the chosen products to promote either food safety or hygiene practices. The products must be connected as part of a series and share common elements of the design negotiated in the planning stage.
5	<p>Evaluating Develop negotiated criteria to evaluate and justify design processes and solutions</p>	<ul style="list-style-type: none"> • Develop criteria: <ul style="list-style-type: none"> ▪ negotiate with a partner, group etc. ▪ determine distinct criteria/categories ▪ consider suitability of proposed product, system or environment for given task. 	<ul style="list-style-type: none"> • Develop logical, negotiated and distinct criteria to evaluate and justify design processes and solutions. • Review suitability of the proposed fridge magnets, such as part of a series, size of font used, complimentary colours etc. • Check the product presents a clear message. • Review suitability for the selected environment. • Consider any improvements or changes.
6–7	<p>Collaborating and managing Work independently, or collaboratively when required, to plan, safely develop and communicate ideas and information for solutions</p> <p>Producing and implementing Select, and apply, safe procedures when using components and equipment to make solutions</p>	<ul style="list-style-type: none"> • Skills required to work independently: <ul style="list-style-type: none"> ▪ apply and refer to planned step-by-step instructions for safe procedures and production ▪ complete task within the designated time frame. • Skills required to work collaboratively: <ul style="list-style-type: none"> ▪ goal setting ▪ share ideas/information ▪ plan together – allocate roles/tasks ▪ communication ▪ workload ▪ time management. • Application of safe procedures for use of selected components, such as machinery, oven, trolley etc., including: <ul style="list-style-type: none"> ▪ directions for safe use, such as an emergency plan ▪ ease of use, including correct application, such as appropriate height, suitable weight and manipulation ▪ protective clothing/shoes/headwear ▪ avoid slips, trips and spills. • Application of safe procedures for use of selected equipment, such as utensils, tools, brushes etc. for: <ul style="list-style-type: none"> ▪ ease of use ▪ storage ▪ handling (of blades, knives, sharps). 	<ul style="list-style-type: none"> • Establish goals to work collaboratively and state ways to complete the task individually. • Develop an individual step-by-step work plan for producing the selected products (fridge magnets). • Complete production of individual fridge magnet within the agreed time frame. • Work collaboratively to: <ul style="list-style-type: none"> ▪ identify a time and place to stop in the work plan ▪ share ideas/information in a reflective manner ▪ review individual progress with partner. • Negotiate workload and time management for successful and timely completion of the final product. • Outline application of safe, explicit step-by-step instructions for production procedures during the use of selected components, materials and machines, such as laminating etc. • Outline safe procedures for use and storage of selected equipment during the production of the fridge magnet, including the handling of blades, knives, sharps etc. • Create/produce an individual fridge magnet highlighting relevant food safety and/or hygiene practices for use in the home.
8	<p>Evaluating Develop negotiated criteria to evaluate and justify design processes and solutions</p>	<ul style="list-style-type: none"> • Develop criteria: <ul style="list-style-type: none"> ▪ negotiate with a partner, group etc. ▪ determine distinct criteria/categories ▪ consider suitability of proposed product, system or environment for given task. • Evaluate and justify design process through: <ul style="list-style-type: none"> ▪ use and adjustment of annotated diagrams ▪ application of storyboard ideas ▪ size, colour, ease of use, clear message etc. of product, system or environment ▪ communication of ideas. • Evaluate and justify solutions through: <ul style="list-style-type: none"> ▪ management of step-by-step process ▪ usage/management of resources ▪ implementation of safety processes. 	<ul style="list-style-type: none"> • Apply the negotiated criteria developed with a partner (from Week 5) to evaluate the fridge magnet: <ul style="list-style-type: none"> ▪ determine if logical and distinct criteria have been developed ▪ describe how the two magnets are part of a series ▪ refer to agreed design features. • Outline and justify successful design features. • Suggest ways to improve and/or make changes to the fridge magnets, providing valid reasons. • Identify features that indicate both magnets are a part of a series. • Describe ways in which students work collaboratively to: <ul style="list-style-type: none"> ▪ communicate detailed and logically sequenced steps ▪ explain how processes were implemented safely ▪ evaluate application of design features ▪ determine the suitability of the fridge magnet with reference to the original given task.