Food and fibre

Introduction

The Australian Curriculum addresses learning about food and fibre production in two ways:

- in content descriptions as in F–6/7 HASS/Geography, Science and Technologies, noting that in Technologies there will be a stronger inclusion than in the other two areas
- where it is identified in content elaborations in other learning areas, such as Mathematics.

The scope of learning in food and fibre reflects relevant content from across the Australian Curriculum.

The Australian Curriculum Connection: Food and fibre provides a framework for all young Australians to understand and value primary industries both across learning areas and specifically within the Technologies learning area as a technologies context in core learning across Foundation to Year 8 and as additional learning opportunities offered by states and territories in Years 9–10

The food and fibre connection has been presented in bands of schooling. In Foundation – Year 6, the connection is described as learning about producing food and fibre. In Years 7–10, it is described as food and fibre production.

Relationship of learning about producing food and fibre (F–6) to the learning areas of the Australian Curriculum

The following table identifies how the scope of food and fibre production is evident in content descriptions from across the Australian Curriculum. From this information, teachers could develop a sequential program for food and fibre production.

Year 3

Learning area/subject	Strand/sub-strand	Year 3 content descriptions	Year 3 content elaborations
Design and Technologies (Years 3 and 4)	Design and technologies knowledge and understanding	Recognise the role of people in design and technologies occupations and explore factors, including sustainability that impact on the design of products, services and environments to meet community needs (ACTDEK010)	• considering the impact of environments on users, for example a school vegetable garden, a protected outdoor play area • critiquing designed products, services and environments to establish the factors that influence the design and use of common technologies, for example the characteristics that contribute to energy-efficient cooking such as wok cooking; the suitability and sustainable use of particular timbers
		Investigate food and fibre production and food technologies used in modern and traditional societies (ACTDEK012)	• exploring tools, equipment and procedures to improve plant and animal production, for example when growing vegetables in the school garden and producing plant and animal environments such as a greenhouse, animal housing, safe bird shelters • identifying the areas in Australia and Asia where major food or fibre plants and animals are grown or bred, for example the wheat and sheep belts, areas where sugar cane or rice are grown, northern Australia's beef industry, plantation and native forest areas • describing ideal conditions for successful plant and animal production including how climate and soils affect production and availability of foods, for example Aboriginal seasons and food availability

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	Design and technologies processes and production skills	Critique needs or opportunities for designing and explore and test a variety of materials, components, tools and equipment and the techniques needed to produce designed solutions (ACTDEP014)	• examining the structure and production of everyday products, services and environments to enhance their own design ideas
		Generate, develop, and communicate design ideas and decisions using appropriate technical terms and graphical representation techniques (ACTDEP015)	• generating a range of design ideas for intended products, services, environments
		Select and use materials, components, tools, equipment and techniques and use safe work practices to make designed solutions (ACTDEP016)	• using tools and equipment accurately when measuring, marking and cutting; and explaining the importance of accuracy when designing and making, for example creating a template, measuring ingredients in a recipe, sowing seeds • selecting and using materials, components, tools, equipment and processes with consideration of the environmental impact at each stage of the production process
		Evaluate design ideas, processes and solutions based on criteria for success developed with guidance and including care for the environment (ACTDEP017)	• reflecting on designed solutions to critique and assess suitability, sustainability and enterprise opportunities and determine how well they meet success criteria
		Plan a sequence of production steps when making designed solutions individually and collaboratively (ACTDEP018)	• managing time and resource allocation throughout production, for example materials, tools, equipment and people
Science	Science understanding *Biological sciences*	Living things can be grouped on the basis of observable features	• recognising characteristics of living things such as growing, moving, sensitivity and reproducing

Learning area/subject	Strand/sub-strand	Year 3 content descriptions	Year 3 content elaborations
		and can be distinguished from non-living things (ACSSU044)	• recognising the range of different living things • exploring differences between living, once living and products of living things
	Science as a human endeavour *Nature and development of science*	Science involves making predictions and describing patterns and relationships (ACSHE050)	• making predictions about change and events in our environment •
	Use and influence of science	Science knowledge helps people to understand the effect of their actions (ACSHE051)	• investigating how science helps people such as nurses, doctors, dentists, mechanics and gardeners
F–6/7 HASS	Knowledge and understanding *Geography*	The similarities and differences between places in terms of their type of settlement, demographic characteristics and the lives of people who live there (ACHGK019)	• exploring different types of settlement, and classifying them into hierarchical categories, for example isolated dwellings, outstations, villages, towns, regional centres and large cities • discussing the similarities and differences in the types of work people do in their own place with a different type of place in Australia and a place in another country
	Historical knowledge and understanding *History*	How the community has changed and remained the same over time, and the role that people of diverse backgrounds have played in the development and character of the local community (ACHASSK063)	• exploring photographs, newspapers, oral histories, diaries and letters to investigate how an aspect of life in the local community (for example, transport, entertainment, the natural and built environment, technology) has changed over time (for example, from the time of European settlement to the present day) • comparing photographs from the past and present of a specific location to identify the change or continuity (similarities and differences over time) associated with people, events/developments, places or ecosystems

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Mathematics	Measurement and geometry *Location and transformation*	Create and interpret simple grid maps to show position and pathways (ACMMG065)	• creating a map of the classroom or playground
	Statistics and probability *Data representation and interpretation*	Collect data, organise into categories and create displays using lists, tables, picture graphs and simple column graphs, with and without the use of digital technologies (ACMSP069)	• collecting data to investigate features in the natural environment

Year 4

Learning area/subject	Strand/sub-strand	Year 4 content descriptions	Year 4 content elaborations
Design and Technologies (Years 3 and 4)	Design and technologies knowledge and understanding	Recognise the role of people in design and technologies occupations and explore factors, including sustainability that impact on the design of products, services and environments to meet community needs (ACTDEK010)	• considering the impact of environments on users, for example a school vegetable garden, a protected outdoor play area • critiquing designed products, services and environments to establish the factors that influence the design and use of common technologies, for example the characteristics that contribute to energy-efficient cooking such as wok cooking; the suitability and sustainable use of particular timbers
		Investigate food and fibre production and food technologies used in modern and traditional societies (ACTDEK012)	• exploring tools, equipment and procedures to improve plant and animal production, for example when growing vegetables in the school garden and producing plant and animal environments such as a greenhouse, animal housing, safe bird shelters • identifying the areas in Australia and Asia where major food or fibre plants and animals are grown or bred, for example the wheat and sheep belts, areas where sugar cane or rice are grown, northern Australia's beef industry, plantation and native forest areas • describing ideal conditions for successful plant and animal production including how climate and soils affect production and availability of foods, for example Aboriginal seasons and food availability
	Design and technologies processes and production skills	Critique needs or opportunities for designing and explore and test a variety of materials, components, tools and equipment and the techniques needed to produce designed solutions (ACTDEP014)	• examining the structure and production of everyday products, services and environments to enhance their own design ideas

Learning area/subject	Strand/sub-strand	Year 4 content descriptions	Year 4 content elaborations
		Generate, develop, and communicate design ideas and decisions using appropriate technical terms and graphical representation techniques (ACTDEP015)	• generating a range of design ideas for intended products, services, environments
		Select and use materials, components, tools, equipment and techniques and use safe work practices to make designed solutions (ACTDEP016)	• using tools and equipment accurately when measuring, marking and cutting; and explaining the importance of accuracy when designing and making, for example creating a template, measuring ingredients in a recipe, sowing seeds • selecting and using materials, components, tools, equipment and processes with consideration of the environmental impact at each stage of the production process
		Evaluate design ideas, processes and solutions based on criteria for success developed with guidance and including care for the environment (ACTDEP017)	• reflecting on designed solutions to critique and assess suitability, sustainability and enterprise opportunities and determine how well they meet success criteria
		Plan a sequence of production steps when making designed solutions individually and collaboratively (ACTDEP018)	• managing time and resource allocation throughout production, for example materials, tools, equipment and people
Science	Science understanding *Biological sciences*	Living things have life cycles (ACSSU072)	• making and recording observations of living things as they develop through their life cycles • describing the stages of life cycles of different living things such as insects, birds, frogs and flowering plants • comparing life cycles of animals and plants • recognising that environmental factors can affect life cycles such as fire and seed germination

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		Living things, depend on each other and the environment to survive (ACSSU073)	• investigating how plants, provide shelter for animals • investigating the roles of living things in a habitat, for instance producers, consumers or decomposers • recognising that interactions between living things may be competitive or mutually beneficial
	Earth and space sciences	Earth's surface changes over time as a result of natural processes and human activity (ACSSU075)	• exploring a local area that has changed as a result of natural processes, such as an eroded gully, sand dunes or river banks • investigating the characteristics of soils • considering how different human activities cause erosion of the Earth's surface • considering the effect of events such as floods and extreme weather on the landscape, both in Australia and in the Asia region
	Use and influence of science	Science knowledge helps people to understand the effect of their actions (ACSHE062)	• investigating how a range of people, such as clothing designers, builders or engineers use science to select appropriate materials for their work • considering methods of waste management and how they can affect the environment • exploring how science has contributed to a discussion about an issue such as loss of habitat for living things or how human activity has changed the local environment • considering how to minimise the effects of erosion caused by human activity
F–6/7 HASS	Knowledge and understanding *Geography*	The main characteristics of the continents of Africa and South America and the location of their	• using geographical tools (for example a globe, a wall map or digital application like Google Earth), to identify the major countries of Africa and South America and their relative location

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		major countries in relation to Australia (ACHASSK087)	• researching the main types of natural vegetation and native animals in a climate zone in Australia and comparing them with those found in a similar climate in Africa or South America
		The importance of environments, including natural vegetation, to animals and people (ACHASSK088)	• exploring how vegetation has an important role in sustaining the environment by producing oxygen, protecting food-producing land from erosion, retaining rainfall, providing habitat for animals, sheltering crops and livestock, producing shade for people, cooling urban spaces, producing medicines, wood and fibre and making places appear more attractive
		The custodial responsibility Aboriginal and Torres Strait Islander Peoples have for Country/Place, and how this influences views about sustainability (ACHASSK089)	• investigating how knowledge and practices shared among Aboriginal and Torres Strait Islander Peoples are linked to sustainable use of resources and environments (such as rotational use and harvesting of resources, mutton bird harvesting in Tasmania, the use of fire and the collection of bush food from semi-arid rangelands)
		The use and management of natural resources and waste and the different views on how to do this sustainably (ACHASSK090)	• identifying some of the resources produced by the environment and where they come from (for example, water, food, and raw materials, such as fibres, timber and metals that make the things they use)
Mathematics	Number and algebra *Money and financial mathematics*	Solve problems involving purchases and the calculation of change to the nearest five cents with and without digital technologies (ACMNA080)	• carrying out calculations in another currency as well as in dollars and cents and identifying both as decimal systems
	Measurement and geometry *Location and transformation*	Use simple scales, legends and directions to interpret information contained in basic maps (ACMMG090)	• identifying the scale used on maps of cities and rural areas in Australia and a city in Indonesia and describing the difference

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			• using directions to find features on a map
	Data representation and interpretation	Select and trial methods for data collection, including survey questions and recording sheets (ACMSP095)	• comparing the effectiveness of different methods of collecting data • choosing the most effective way to collect data for a given investigation
		Construct suitable data displays, with and without the use of digital technologies, from given or collected data. Include tables, column graphs and picture graphs where one picture can represent many data values (ACMSP096)	• exploring ways of presenting data and showing the results of investigations • investigating data displays using many-to-one correspondence
		Evaluate the effectiveness of different displays in illustrating data features including variability (ACMSP097)	• interpreting data representations in the media and other forums in which symbols represent more than one data value • suggesting questions that can be answered by a given data display and using the display to answer questions