

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 5

Learning area/subject	Strand/sub-strand	Year 5 content descriptions	Year 5 content elaborations
Design and Technologies (Years 5 and 6)	Design and technologies knowledge and understanding	Examine how people in design and technologies occupations address competing considerations, including sustainability in the design of products, services and environments for current and future use (ACTDEK019)	<ul style="list-style-type: none"> identifying the components of a service or system that contribute to its success and assessing potential risk or failure, for example, communication in the school or communication of a message to a wide audience; a system that manages an aspect of the environment; a campaign such as Clean Up Australia Day in different communities
		Investigate how and why food and fibre are produced in managed environments and prepared to enable people to grow and be healthy (ACTDEK021)	<ul style="list-style-type: none"> investigating and experimenting with different tools, equipment and methods of preparing soil and the effect on soil quality and sustainability, including conserving and recycling nutrients, for example when designing a sustainable school vegetable garden or cropping area describing the relationship between plant types and animal breeds and their environmental suitability when selecting suitable plants or animals for an environment sequencing the process of converting 'on-farm' food or fibre products into a product suitable for retail sale, that is, the 'paddock to plate' supply chain, or when making yarn or fabric from fibre
	Design and technologies processes and production skills	Critique needs or opportunities for designing, and investigate materials, components, tools, equipment and processes to achieve intended designed solutions (ACTDEP024)	<ul style="list-style-type: none"> investigating how to minimise material use and manage waste by critiquing the environmental and social impacts of materials, components, tools and equipment

		Generate, develop and communicate design ideas and processes for audiences using appropriate technical terms and graphical representation techniques (ACTDEP025)	<ul style="list-style-type: none"> generating a range of design ideas for products, services or environments using prior knowledge, skills and research
		Select appropriate materials, components, tools, equipment and techniques to make designed solutions and apply safe procedures (ACTDEP026)	<ul style="list-style-type: none"> using appropriate personal protective equipment required for the use of some tools and equipment, for example protective eyewear manipulating materials with appropriate tools, equipment and techniques, for example when preparing food, cultivating garden beds, constructing products
		Negotiate criteria for success that include sustainability to evaluate design ideas, processes and solutions (ACTDEP027)	<ul style="list-style-type: none"> independently and collaboratively identifying criteria for success, processes and planning, for example using visual representations such as a flowchart evaluating the suitability of materials, tools and equipment for specific purposes evaluating products, services and environments from a range of technologies contexts with consideration of ethics and sustainability
		Develop project plans that include consideration of resources when making designed solutions individually and collaboratively (ACTDEP028)	<ul style="list-style-type: none"> outlining the planning and production steps needed to produce a product, service or environment using digital technologies
Science	Science understanding <i>Biological sciences</i>	Living things have structural features and adaptations that help them to survive in their environment (ACSSU043)	<ul style="list-style-type: none"> exploring general adaptations for particular environments such as adaptations that aid water conservation in deserts
		Scientific knowledge is used to solve problems and inform	<ul style="list-style-type: none"> considering how best to ensure growth of plants

		personal and community decisions (ACSHE083)	
F-6/7 HASS	Knowledge and understanding <i>Geography</i>	The influence of people on the environmental characteristics of places in Europe and North America and the location of their major countries in relation to Australia (ACHASSK111)	<ul style="list-style-type: none"> using geographical tools, for example, a globe, wall map or digital application like Google Earth, to identify the relative location of the major countries of Europe and North America and their environmental characteristics researching the changes made by people to a particular environment in a country in Europe and a country North America
		The influence of people, including Aboriginal and Torres Strait Islander Peoples, on the environmental characteristics of Australian places (ACHASSK112)	<ul style="list-style-type: none"> identifying how Aboriginal and Torres Strait Islander communities altered the environment and sustained ways of living through their methods of land and resource management
		The environmental and human influences on the location and characteristics of a place and the management of spaces within them (ACHASSK113)	<ul style="list-style-type: none"> examining how the use of the space within their local place is organised through zoning comparing how people have responded to climatic conditions in similar and different places and explaining why most Australians live close to the coast compared to inland Australia investigating the influence of landforms (for example, river valleys such as the Murray-Darling, Yellow (Huang He), Yangtze, Amazon, Mekong or Ganges), on the development of settlements that are involved in food and fibre production examining the effects of landforms (for example, valleys, hills, natural harbours and rivers), on the location and characteristics of their place and other places they know investigating a current local planning issue (for example, redevelopment of a site, protection of a unique species), preservation of open space, exploring why people have different views on the issue, and developing a class response to it

		<p>The impact of bushfires or floods on environments and communities, and how people can respond (ACHASSK114)</p>	<ul style="list-style-type: none"> mapping and explaining the location, frequency and severity of bushfires or flooding in Australia explaining the impacts of fire on Australian vegetation and the significance of fire damage on communities researching how the application of principles of prevention, mitigation and preparedness, minimises the harmful effects of bushfires or flooding
F-6/7 HASS	<p>Knowledge and understanding <i>History</i></p>	<p>The nature of convict or colonial presence, including the factors that influenced patterns of development, aspects of the daily life of the inhabitants (including Aboriginal Peoples and Torres Strait Islander Peoples), and how the environment changed (ACHASSK107)</p>	<ul style="list-style-type: none"> investigating colonial life to discover what life was like at that time for different inhabitants (for example, a European family and an Aboriginal or Torres Strait Islander Language group, a convict and a free settler, a sugar cane farmer and an indentured labourer) in terms of clothing, diet, leisure, paid and unpaid work, shopping or trade, language, housing and children's lives mapping local, regional and state/territory rural and urban settlement patterns in the 1800s, and noting factors such as geographical features, climate, water resources, the discovery of gold, transport and access to port facilities that shared these patterns investigating the impact of settlement on the environment and its ecosystems (for example, comparing the present and past landscape and the flora and fauna of the local community)
		<p>The impact of a significant development or event on a colony (ACHASSK108)</p>	<ul style="list-style-type: none"> investigating an event or development and explaining its economic, social and political impact on a colony (for example, the consequences of frontier conflict events such as the Myall Creek Massacre, the Pinjarra Massacre: the impact of South Sea Islanders on sugar farming and the timber industry; the impact of the Eureka Stockade on the development of democracy; the impact of internal exploration and the advent of rail on the expansion of farming)

		<p>The role that a significant individual or group played in shaping a colony (ACHASSK110)</p>	<ul style="list-style-type: none"> investigating the contribution or significance of an individual or group to the shaping of a colony in the 1800s (for example, explorers, farmers, pastoralists, miners, inventors, writers, artists, humanitarians, religious and spiritual leaders, political activists, including women, children, and people of diverse cultures) exploring the motivations and actions of an individual or group that shaped a colony
Mathematics	<p>Measurement and geometry <i>Location and transformation</i></p>	<p>Use a grid reference system to describe locations. Describe routes using landmarks and directional language (ACMMG113)</p>	<ul style="list-style-type: none"> comparing aerial views of Country, desert paintings and maps with grid references
	<p>Statistics and probability <i>Data representation and interpretation</i></p>	<p>Pose questions and collect categorical or numerical data by observation or survey (ACMSP118)</p>	<ul style="list-style-type: none"> posing questions posing questions about insect diversity in the playground, collecting data by taping a one metre square piece of paper to the playground and observing the type and number of insects on it over time
		<p>Construct displays, including column graphs, dot plots and tables, appropriate for data type, with and without the use of digital technologies (ACMSP119)</p>	<ul style="list-style-type: none"> identifying the best methods of presenting data to illustrate the results of investigations and justifying the choice of representations
		<p>Describe and interpret different data sets in context (ACMSP120)</p>	<ul style="list-style-type: none"> using and comparing data representations for different data sets to help decision making
F–6/7 HASS	<p>Knowledge and understanding <i>Economics and business</i></p>	<p>Types of resources (natural, human, capital) and the ways societies use them in order to satisfy the needs and wants of present and future generations (ACHASSK120)</p>	<ul style="list-style-type: none"> categorising resources as natural (water, coal, wheat), human (workers, business owners, designing, making, thinking) and capital (tools, machines, technologies)

Year 6

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Design and Technologies (Years 5 and 6)	Design and technologies knowledge and understanding	Examine how people in design and technologies occupations address competing considerations, including sustainability in the design of products, services and environments for current and future use (ACTDEK019)	<ul style="list-style-type: none"> identifying the components of a service or system that contribute to its success and assessing potential risk or failure, for example, communication in the school or communication of a message to a wide audience; a system that manages an aspect of the environment; a campaign such as Clean Up Australia Day in different communities
		Investigate how and why food and fibre are produced in managed environments and prepared to enable people to grow and be healthy (ACTDEK021)	<ul style="list-style-type: none"> investigating and experimenting with different tools, equipment and methods of preparing soil and the effect on soil quality and sustainability, including conserving and recycling nutrients, for example when designing a sustainable school vegetable garden or cropping area describing the relationship between plant types and animal breeds and their environmental suitability when selecting suitable plants or animals for an environment sequencing the process of converting 'on-farm' food or fibre products into a product suitable for retail sale, that is, the 'paddock to plate' supply chain, or when making yarn or fabric from fibre
	Design and technologies processes and production skills	Critique needs or opportunities for designing, and investigate materials, components, tools, equipment and processes to achieve intended designed solutions (ACTDEP024)	<ul style="list-style-type: none"> investigating how to minimise material use and manage waste by critiquing the environmental and social impacts of materials, components, tools and equipment
		Generate, develop and communicate and document design ideas and processes for audiences using appropriate technical terms	<ul style="list-style-type: none"> generating a range of design ideas for products, services or environments using prior knowledge, skills and research

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		and graphical representation techniques (ACTDEP025)	
		Select appropriate materials, components, tools, equipment and techniques and apply safe procedures to make designed solutions (ACTDEP026)	<ul style="list-style-type: none"> • using appropriate personal protective equipment required for the use of some tools and equipment, for example protective eyewear • manipulating materials with appropriate tools, equipment and techniques, for example when preparing food, cultivating garden beds, constructing products
		Negotiate criteria for success that include sustainability to evaluate design ideas, processes and solutions (ACTDEP027)	<ul style="list-style-type: none"> • independently and collaboratively identifying criteria for success, processes and planning, for example using visual representations such as a flowchart • evaluating the suitability of materials, tools and equipment for specific purposes • evaluating products, services and environments from a range of technologies contexts with consideration of ethics and sustainability
		Develop project plans that include consideration of resources when making designed solutions individually and collaboratively (ACTDEP028)	<ul style="list-style-type: none"> • outlining the planning and production steps needed to produce a product, service or environment using digital technologies • •
Science	Science understanding <i>Biological sciences</i>	The growth and survival of living things are affected by the physical conditions of their environment (ACSSU094)	<ul style="list-style-type: none"> • investigating how changing the physical conditions for plants impacts on their growth and survival such as salt water, use of fertilizers and soil types
	<i>Earth and space sciences</i>	Sudden geological changes and extreme weather events can affect Earth's surface (ACSSU096)	<ul style="list-style-type: none"> • considering the effect of drought on living and non-living aspects of the environment

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	Science as a human endeavour <i>Use and influence of science</i>	Scientific knowledge is used to solve problems and inform personal and community decisions (ACSHE100)	<ul style="list-style-type: none"> recognising that science can inform choices about where people live and how they manage natural disasters
F-6/7 HASS	Knowledge and understanding <i>Geography</i>	The geographic diversity of the Asia region and the location of its major countries in relation to Australia (ACHASSK138)	<ul style="list-style-type: none"> exploring the diversity of environments and types of settlements in the Asia region, or in part of the region, or in a country in either North-East or South-East or South Asia and discussing any patterns
		Australia's connections with other countries and how these change people and places (ACHASSK141)	<ul style="list-style-type: none"> researching connections between Australia and countries in the Asia region (for example, in terms of migration, trade, tourism, aid, education, defence or cultural influences) and explaining the effects of at least one of these connections on their own place and another place in Australia exploring the provision of Australian government or non-government aid to a country in the Asia and Pacific region or elsewhere in the world and analysing its effects on places in that country
Mathematics	Statistics and probability <i>Data representation and interpretation</i>	Interpret and compare a range of data displays, including side-by-side column graphs for two categorical variables (ACMSP147)	<ul style="list-style-type: none"> understanding that data can be represented in different ways, sometimes with one symbol representing more than one piece of data, and that it is important to read all information about a representation before making judgments
		Interpret secondary data presented in digital media and elsewhere (ACMSP148)	<ul style="list-style-type: none"> investigating data representations in the media and discussing what they illustrate and the messages the people who created them might want to convey identifying potentially misleading data representations in the media, such as graphs with broken axes or non-linear scales, graphics not drawn to scale, data not related to the population about which the claims are made, and pie charts in which the

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			<p>whole pie does not represent the entire population about which the claims are made</p>
<p>F–6/7 HASS</p>	<p>Knowledge and understanding <i>Economics and business</i></p>	<p>How the concept of opportunity cost involves choices about the alternative use of resources and the need to consider trade-offs (ACHASSK149)</p>	<ul style="list-style-type: none"> explaining why choices have to be made when faced with unlimited wants and limited resources, for example by compiling a list of personal needs and wants, determining priorities (including sustainability of natural environments), and identifying the needs and wants that can be satisfied with the resources available)
		<p>The effect that consumer and financial decisions can have on the individual, the broader community and the environment (ACHASSK150)</p>	<ul style="list-style-type: none"> investigating questions (for example ‘Does what my family buys in the supermarket affect what businesses might sell or produce?’)
		<p>The reasons businesses exist and the different ways they provide goods and services (ACHASSK151)</p>	<ul style="list-style-type: none"> identifying why businesses exist (for example to produce goods and services, to make a profit, to provide employment) and investigating the different ways that goods and services are provided to people, such as through shopping centres, local markets, online, small independent stores, remote community stores distinguishing between businesses in the primary, secondary and tertiary industry sectors and discussing what they produce or provide (such as agriculture and mining; textiles and food; and information, tourism and telecommunication)