



# Western Australian Curriculum

## Technologies | Design and Technologies

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Proposed Comparison of Curriculum | Pre-primary–Year 6  
Draft for consultation | Not for implementation

DRAFT

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## Overview

The current Western Australian Curriculum: Technologies was adopted from the Australian Curriculum version 8.1.

Western Australia provided feedback to the Australian Curriculum, Assessment and Reporting Authority (ACARA) during the consultation for the Australian Curriculum.

The proposed revisions to the Western Australian Curriculum: Technologies are adopted and adapted from the Australian Curriculum version 9.

### Guide to reading this document

This document shows the proposed content across year levels so that a sequence of content can be viewed across the years of schooling from Pre-primary to Year 6.

In each year, students will have opportunities to create designed solutions in at least one of the technologies contexts: Engineering principles and systems; Food and fibre production; Food specialisations; and Materials and technologies specialisations.

In the Australian Curriculum where two contexts have been combined, this is shown in **bold**.

## Pre-primary–Year 2

### Knowledge and understanding

Technologies and society			
	Pre-primary	Year 1	Year 2
<b>Current WA Curriculum</b>	People produce familiar products to meet personal and community needs	People produce familiar products and services to meet personal and community needs	People design and produce familiar products, services and environments to meet local and community needs
<b>Australian Curriculum v9</b>	explore how familiar products, services and environments are designed by people	identify how familiar products, services and environments are designed and produced by people to meet personal or local community needs and sustainability	
<b>Proposed WA Curriculum</b>	<p>Explore familiar technologies to meet personal needs</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• EP&amp;S: technology appliances/devices for personal use, such as a night light and an electric toothbrush</li> <li>• F&amp;FP: a range of footwear or clothes for specific activities, such as a sport, dance or family outing</li> <li>• FS: a range of utensils required for food preparation</li> <li>• M&amp;TS: various closures/fasteners on a range of shoes and jackets to secure, keep warm, such as a hook and loop fastener, and zipper</li> </ul>	<p>People use technologies to create products for personal needs</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• EP&amp;S: electric blender to create a juice/smoothie for breakfast</li> <li>• F&amp;FP: tractor to dig holes for planting of trees/hedges to create shelter for animals</li> <li>• FS: barbecue to cook food</li> <li>• M&amp;TS: use materials to create an umbrella to protect from rain and/or the sun</li> </ul>	<p>People use selected technologies to make familiar products and environments to meet local needs</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• EP&amp;S: design features and selected technologies of playground equipment for the needs of a child</li> <li>• F&amp;FP: hot house environment for growing food, such as tomatoes, cucumbers to meet needs of local people</li> <li>• FS: selected technologies, such as an electric food mixer, measuring scales used in the production of bread including a warm environment provided by a pizza oven</li> <li>• M&amp;TS: design shelving for extra storage in the classroom and identify appropriate technologies and materials, such as timber, metal for the designer to consider</li> </ul>

## Technologies contexts

### Engineering principles and systems

	Pre-primary	Year 1	Year 2
<b>Current WA Curriculum</b>	Ways in which objects move: push, pull, bounce, slide, fall, spin, float	Ways objects can be moved using technology	Forces create movement in objects
<b>Australian Curriculum v9</b>	N/A	<b>Technologies context: Engineering principles and systems; Materials and technologies specialisations</b> explore how technologies including materials affect movement in products	
<b>Proposed WA Curriculum</b>	Explore ways objects can be moved: push, pull, bounce, slide, fall, spin, float For example: <ul style="list-style-type: none"> <li>ways toys move including use of different actions/forces for different results, such as fast, slow</li> <li>movement; bodies can move in different ways</li> </ul>	Force generates motion in objects and is affected by materials For example: <ul style="list-style-type: none"> <li>rice grains moving on thin plastic when stretched over a speaker or cup</li> <li>move objects on surfaces, such as carpet, concrete, wet and dry sand, and effect of distance, shape, size, weight on motion</li> <li>move objects of different shapes and materials down a slope, with and without water, sand</li> <li>varying force required to push or pull a toy on different materials/surfaces</li> </ul>	Ways force can move objects within a system For example: <ul style="list-style-type: none"> <li>use of large and small cogs</li> <li>a system of different wheels in forward and reverse motion</li> <li>round object, such as a marble, small ball, down a slope, through bends, 'S' curves, and/or straights</li> <li>push a swing, ride a seesaw, slide down a slide, glide on a flying fox (zip-line)</li> </ul>

### Food and fibre production

	Pre-primary	Year 1	Year 2
<b>Current WA Curriculum</b>	Plant and animal products are used in everyday life for food, clothing and shelter	Plants and animals used for production have basic needs, such as food/nutrients, water, space, protection	Food and fibre choices for healthy living
<b>Australian Curriculum v9</b>	N/A	<b>Technologies context: Food and fibre production; Food specialisations</b> explore how plants and animals are grown for food, clothing and shelter explore how food can be selected and prepared for healthy eating	
<b>Proposed WA Curriculum</b>	Explore ways animals and plants are used in everyday life for food and clothing For example: <ul style="list-style-type: none"> <li>awareness of processes for 'farm to fridge'</li> <li>sustainable achievement through student collection of food scraps for compost</li> </ul>	Animals and plants have essential needs, including food, water, space, shelter and protection from predators For example: <ul style="list-style-type: none"> <li>various ways to provide homes and shelter for animals</li> <li>ways seed planting needs to be considered to maximise growth, such as different growing conditions, plant spacings and growth patterns</li> </ul>	Food and fibre are produced in different seasons and environments For example: <ul style="list-style-type: none"> <li>different foods and fibres available in each of the seasons</li> <li>plants grow in different seasons</li> <li>environment required for silk production, fish farming and/or greenhouse tomatoes</li> <li>system (process layout) for egg, wheat production or print on a T-shirt</li> </ul>

## Food specialisations

	Pre-primary	Year 1	Year 2
<b>Current WA Curriculum</b>	This sequence starts at Year 5		
<b>Australian Curriculum v9</b>	N/A	<b>Technologies context: Food and fibre production; Food specialisations</b> explore how plants and animals are grown for food, clothing and shelter explore how food can be selected and prepared for healthy eating	
<b>Proposed WA Curriculum</b>	<p>Foods are explored for colour, texture, flavour and shape</p> <p>Hygiene practices for food handling</p> <p>For example:</p> <ul style="list-style-type: none"> <li>from a range of prepared food, such as sliced, grated, and chopped, explore colour, texture, flavour, taste and shape</li> <li>use hygiene practices, such as wash and dry hands, secure hair, clean surfaces before and after handling food</li> </ul>	<p>Various sources of familiar food</p> <p>Ways to prepare selected foods for consumption</p> <p>For example:</p> <ul style="list-style-type: none"> <li>various food sources and familiar foods, such as dairy cow - cheese, milk; hen - egg; wheat grains - flour/bread</li> <li>prepare selected foods for a class green salad, such as wash and tear leafy vegetables, remove stalks, break down broccoli florets</li> </ul>	<p>Staple foods selected to create a range of food products, considering local sources</p> <p>For example:</p> <ul style="list-style-type: none"> <li>ways staple foods are used to prepare a local dish, such as oats rolled for porridge; wheat flour for bread, pasta, noodles; tomatoes for sauce, pizza; rice for sushi, fried rice; potatoes and yams, basis for meals</li> </ul>

## Materials and technologies specialisations

	Pre-primary	Year 1	Year 2
<b>Current WA Curriculum</b>	Characteristics of materials can be explored using senses	Characteristics and behaviours of individual materials used in products	Characteristics and properties of materials and individual components that are used to produce design solutions
<b>Australian Curriculum v9</b>	N/A	<b>Technologies context: Engineering principles and systems; Materials and technologies specialisations</b> explore how technologies including materials affect movement in products	
<b>Proposed WA Curriculum</b>	<p>Explore colour, texture and feel of materials through play</p> <p>For example:</p> <ul style="list-style-type: none"> <li>cut-outs made from different textured materials and coloured shapes to make patterns</li> <li>stepping stones; walk barefoot over squares of different materials with different surfaces and textures</li> <li>weave with various natural and man-made materials</li> <li>take a barefoot walk on Country to discover different surfaces and textures</li> </ul>	<p>Properties of materials determine selection for a specified purpose</p> <p>For example:</p> <ul style="list-style-type: none"> <li>materials with protective qualities, such as for warmth, waterproofing, strength and durability</li> <li>pass light over a selection of materials to observe range and quality of light penetration, such as a 'rash guard fitted swim vest' (rashie) and T-shirt</li> <li>shapes created using different materials, such as wood, plastic, paper, card, solid or hollow blocks, and consider the purpose of the materials</li> <li>shadow puppets created</li> </ul>	<p>Properties of materials used to produce a product for a specified purpose</p> <p>For example:</p> <ul style="list-style-type: none"> <li>given a range of materials, select for product suitability, such as for a hat, toy boat, or simple bat</li> <li>different types of materials, such as foam, bubble wrap to create seat cushions</li> <li>materials suitable to protect from various weather conditions, such as sunshade for animals, rain jackets for children</li> <li>a range of materials provided for loose parts play</li> </ul>

## Creating solutions

### Investigating and defining

	Pre-primary	Year 1	Year 2
<b>Current WA Curriculum</b>	Explore needs for design	Explore opportunities for design	Explore design to meet needs or opportunities
<b>Proposed WA Curriculum</b>	Explore the purpose for design	Explore ideas and design opportunities for a personal need	Explore ideas and design opportunities for a known user

### Designing

	Pre-primary	Year 1	Year 2
<b>Current WA Curriculum</b>	Generate and record design ideas through describing, drawing, modelling and/or a sequence of written or spoken steps	Develop and communicate design ideas through describing, drawing, modelling and/or a sequence of written or spoken steps	Develop, communicate and discuss design ideas through describing, drawing, modelling and/or a sequence of steps
<b>Australian Curriculum v9</b>	generate, communicate and evaluate design ideas, and use materials, equipment and steps to safely make a solution for a purpose	generate and communicate design ideas through describing, drawing or modelling, including using digital tools	
<b>Proposed WA Curriculum</b>	Design solutions through discussion, drawing and/or modelling to meet a personal need	Design solutions through drawing, modelling and/or a sequence of steps	Design solutions generated and communicated through discussion, drawing, modelling and/or a sequence of steps

### Producing and implementing

	Pre-primary	Year 1	Year 2
<b>Current WA Curriculum</b>	Use given components and equipment to safely make simple solutions	Use given components and equipment to safely make solutions	Use components and given equipment to safely make solutions
<b>Australian Curriculum v9</b>		use materials, components, tools, equipment and techniques to safely make designed solutions	
<b>Proposed WA Curriculum</b>	Use available technologies and materials to safely create a solution	Use available technologies and materials to safely create a preferred solution	Use given equipment and technologies to safely create a solution



## Evaluating

	Pre-primary	Year 1	Year 2
<b>Current WA Curriculum</b>	Use personal preferences to evaluate the success of simple solutions	Use personal preferences to evaluate the success of design processes	Use simple criteria to evaluate the success of design processes and solutions
<b>Australian Curriculum v9</b>		evaluate the success of design ideas and solutions based on personal preferences and including sustainability	
<b>Proposed WA Curriculum</b>	Use personal preferences to evaluate the solution	Use personal preferences to evaluate the solution for a personal need	Use personal preferences and the needs of the known user to evaluate the solution

## Collaborating and managing

	Pre-primary	Year 1	Year 2
<b>Current WA Curriculum</b>	Work independently, or with others when required, for solutions	Work independently, or with others when required, to safely create and share sequenced steps for solutions	Work independently, or collaboratively when required, to organise information and ideas to safely create and share sequenced steps for solutions
<b>Australian Curriculum v9</b>		sequence steps for making designed solutions cooperatively	
<b>Proposed WA Curriculum</b>	Share ideas to develop a solution	Share ideas and work with others to develop a solution	Plan, share ideas and work with others to develop a solution for a known user

## Years 3–6

### Knowledge and understanding

Technologies and society				
	Year 3	Year 4	Year 5	Year 6
<b>Current WA Curriculum</b>	<p>Role of people in design and technologies occupations</p> <p>Ways products, services and environments are designed to meet community needs</p>	<p>Role of people in design and technologies occupations</p> <p>Ways products, services and environments are designed to meet community needs, including consideration of sustainability</p>	<p>How people address competing considerations when designing products, services and environments</p>	<p>How people address competing considerations, including sustainability when designing products, services and environments for current and future use</p>
<b>Australian Curriculum v9</b>	<p>examine design and technologies occupations and factors including sustainability that impact on the design of products, services and environments to meet community needs</p>		<p>explain how people in design and technologies occupations consider competing factors including sustainability in the design of products, services and environments</p>	
<b>Proposed WA Curriculum</b>	<p>Role of people in design and technologies occupations in the local community</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• EP&amp;S: electrician provides a service to repair fan, oven, lights and other electrical technologies used in the home</li> <li>• F&amp;FP: carer at an animal refuge uses a range of technologies to care for sick and injured animals</li> <li>• FS: canteen manager organises the production of lunches using a range of kitchen technologies, such as utensils, cooking equipment</li> <li>• M&amp;TS: picture framer uses a range of materials and specialised technologies to create a photo frame or digital frame</li> </ul>	<p>Diverse roles for people in design and technologies occupations</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• EP&amp;S: designer of prams and strollers considers ways forces and materials affect mobility for a safe and smooth ride for a baby/toddler</li> <li>• F&amp;FP: school gardener assists students to design and make growing boxes for vegetables; uses technologies to develop an automatic water system to grow food for the school community</li> <li>• FS: home fruit grower manages growing cycle of plants till maturity, then preserves the fruits as pickles, sauces and jams</li> <li>• M&amp;TS: a woodworker designs utensils, chopping boards and children’s toys, and develops a production plan to produce, evaluate, and package as gifts or to sell the finished wood product</li> </ul>	<p>People in design and technologies occupations consider competing factors in the design of products, services and environments</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• EP&amp;S: engineer considers competing factors to design for sustainability, including ways to repurpose resources and components used in products, such as electrical appliances, solar panels</li> <li>• F&amp;FP: gardener and horticulturalist consider competing factors to repurpose vacant land for a community need, such as a sensory garden, grows seedlings for food and a peaceful environment</li> <li>• FS: chef and wait staff considers competing factors to repurpose a classroom for a community lunch</li> <li>• M&amp;TS: fashion designer considers competing factors to repurpose uniforms, garments, and accessories for identified community needs</li> </ul>	<p>People in design and technologies occupations address competing considerations, including sustainable factors in the design of products, services and environments</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• EP&amp;S: engineer considers design features, alternative technologies and a range of components suitable to develop or adapt an environment, like the assembly area for the school community, including improved access, lighting, seating and overall comfort</li> <li>• F&amp;FP: food producer (or a clothing manufacturer) considers cost, access to preferred resources, water constraints, transport time and secure storage in the design of the selected product</li> <li>• FS: chef considers access to seasonal produce including sensory properties, consumer values, cost, reliable and safe transport, storage and staff skills in the design of the café menu</li> <li>• M&amp;TS: local government services consider sustainable features of selected materials, cost, suitable access and safety in the design of parks, gardens and playgrounds for all community members</li> </ul>

	Year 3	Year 4	Year 5	Year 6
	<p>Ways technologies are designed and used in products, services or environments to meet individual needs</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• EP&amp;S: ways product design and specific technologies can assist a person with limited mobility, hearing or sight</li> <li>• F&amp;FP: design environments for the growth of seedlings indoors</li> <li>• FS: products designed using technologies to keep food cool and fresh in a lunch box</li> <li>• M&amp;TS: products designed for use by children or the elderly, such as kitchen utensils, bell for bike, scooter or wheelchair</li> </ul>	<p>Ways products, services and environments are designed to meet community (society) needs, including consideration of sustainable factors</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• sustainable factors incorporated at the design stage for products, services and/or environments to meet community (society) needs is effective for change, such as: <ul style="list-style-type: none"> <li>▪ EP&amp;S: ability to reuse, repurpose, recycle materials used for construction of wheels, frame and components for a pram or stroller</li> <li>▪ F&amp;FP: energy efficient watering systems for school garden</li> <li>▪ FS: reuse, repurpose, recycle packaging like plastic bags and bottles, tins, glass jars used for preservation of foods</li> <li>▪ M&amp;TS: select materials, including wood, from regenerated sources</li> </ul> </li> </ul>	<p>Ways technologies are used in the design of products, and implementation of services and environments</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• EP&amp;S: the combinations of technologies required for a transport system, such as trains, buses and trucks to deliver services for the community</li> <li>• F&amp;FP: the combination of technologies and resources required to design a system to grow food for a community garden</li> <li>• FS: the combination of technologies and resources required to design a system to deliver food produce to the school canteen</li> <li>• M&amp;TS: ways technologies produce different models of a selected product more popular than others, such as shoes, hand tools, measuring devices</li> </ul>	<p>Ways competing technologies are used for the design of products, services and environments for community needs</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• EP&amp;S: engineer considers ways competing technologies are used in public transport, media or communication systems within the local and wider community</li> <li>• F&amp;FP: a food or fibre producer considers competing technologies in the design of gardens or production systems to increase production, such as systems to weed, fertilise, water, harvest and store</li> <li>• FS: a take-out food producer considers competing technologies in production and packaging of food ready for sale considering food waste reduction and sustainable features of the packaging used</li> <li>• M&amp;TS: a local boilermaker, who fabricates sheet metal into large containers considers competing technologies including safety, assembly, installation, transport and construction components in the design of a boiler system for a remote mine site</li> </ul>

## Technologies contexts

### Engineering principles and systems

	Year 3	Year 4	Year 5	Year 6
<b>Current WA Curriculum</b>	Forces, and the properties of materials, affect the behaviour of objects	Forces, and the properties of materials, affect the behaviour of a product or system	Forces can control movement, sound or light in a product or system	Electrical energy and forces can control movement, sound or light in a product or system
<b>Australian Curriculum v9</b>	<b>Technologies context: Engineering principles and systems; Materials and technologies specialisations</b> describe how forces and the properties of materials affect function in a product or system		describe how forces and the properties of materials affect function in a product or system	
<b>Proposed WA Curriculum</b>	Forces, and the properties of materials affect the behaviour of objects For example: <ul style="list-style-type: none"> <li>drop a range of balls from same height</li> <li>roll a marble into a group of marbles using different force</li> <li>resistance; roll marbles or types of balls down/along different surfaces, with same gradient, force and distance</li> </ul>	Forces, and the properties of materials affect the behaviour of an object or system For example: <ul style="list-style-type: none"> <li>different gear levels on a bicycle</li> <li>surface of playground equipment</li> <li>surface of tyres, range of treads, surface area</li> <li>variation of force of compression when operating a bicycle pump</li> <li>spikes and studs on athletic shoes, such as football boots</li> </ul>	Forces can control motion, sound or light in a product or system For example: <ul style="list-style-type: none"> <li>movement of a scooter, skateboard or bike through human force</li> <li>sound projected using a cone shaped object or musical instrument</li> <li>intensity of light or sound is controlled by variable forces, such as with a dimmer switch or volume control</li> <li>movement of air by a hair dryer, air conditioner, fan</li> </ul>	Forces and electrical energy can control motion, sound or light in a product and/or system For example: <ul style="list-style-type: none"> <li>an electrical circuit including, switches or movement sensors for output to Light Emitting Diodes (LEDs), and buzzers for sound</li> <li>addition of light, using circuits, to decorate clothing, costumes, hats, shoes</li> <li>catapults work to transfer force, as do cams, camshafts, cranks and worm drives</li> </ul>

### Food and fibre production

	Year 3	Year 4	Year 5	Year 6
<b>Current WA Curriculum</b>	Types of food and fibre produced in different environments, cultures or time periods, including the equipment used to produce or prepare them	Types of technologies used in food and fibre production or processing, including how they are used to help meet consumer needs	People in design and technologies occupations aim to increase efficiency of production systems, or consumer satisfaction of food and natural fibre products	Past performance, and current and future needs are considered when designing sustainable food and fibre systems for products
<b>Australian Curriculum v9</b>	<b>Technologies context: Food and fibre production; Food specialisations</b> describe the ways of producing food and fibre describe the ways food can be selected and prepared for healthy eating		<b>Technologies context: Food and fibre production; Food specialisations</b> explain how and why food and fibre are produced in managed environments explain how the characteristics of foods influence selection and preparation for healthy eating	
<b>Proposed WA Curriculum</b>	Food and fibre produced to meet food and clothing needs For example: <ul style="list-style-type: none"> <li>basket weaving, finger knitting, and/or hand sewing to produce items for use or to wear</li> </ul>	Food and fibre produced in different time periods or cultures, including the technologies and equipment used For example: <ul style="list-style-type: none"> <li>ways people produce a variety of foods, such as yoghurt, cheese, flour</li> </ul>	Food and fibre production in environments for sustainable and regenerative practices	Food and fibre production systems for products, considering design features, consumer demand and managed environments For example:

	Year 3	Year 4	Year 5	Year 6
	<ul style="list-style-type: none"> <li>past and current cereal/grain production, collection and sorting</li> <li>wool production and uses, including waterproof, insulation and fire-resistant properties</li> <li>'fascinating fibres' – up close with a microscope to observe different types of fibres, such as cotton, wool, nylon; similar examination of plants, such as carrot, celery, spinach leaves</li> </ul>	<ul style="list-style-type: none"> <li>ways people use a variety of fibres suitable for clothing, protection from sun and heat, and to keep cool (curtains, blinds)</li> <li>preserve food, such as drying fish, fruits, seeds for out of season consumption</li> <li>preserve fibres and textiles for longevity, such as regular cleaning, polish leather shoes, jackets, belts, and ways to reuse, recycle, repurpose</li> </ul>	<p>For example:</p> <ul style="list-style-type: none"> <li>circular recycling of clothing, such as uniforms</li> <li>the relationship between plant types and their environment, such as for hydroponics</li> <li>bamboo production for food, fabrics, furniture and tools</li> <li>sustainable animal and plant fibre production systems, such as forestry management in timber plantations</li> </ul>	<ul style="list-style-type: none"> <li>variables within a system, such as quantity and quality of fertilisers in separate plots/pots for optimum plant growth</li> <li>twist or spin together one or more fibres to create yarns, to produce a fabric</li> <li>compare hot house environments, trellis espalier, and open field growth of tomatoes</li> <li>animal welfare considerations in various environments</li> <li>soil health/topsoil degradation affected by drought and floods</li> <li>past, current and future needs are considered through cotton fibre production and processes</li> </ul>

### Food specialisations

	Year 3	Year 4	Year 5	Year 6
<b>Current WA Curriculum</b>	This sequence starts at Year 5		Food safety and hygiene practices	Principles of food preparation for healthy eating
<b>Australian Curriculum v9</b>	<b>Technologies context: Food and fibre production; Food specialisations</b> describe the ways of producing food and fibre describe the ways food can be selected and prepared for healthy eating		<b>Technologies context: Food and fibre production; Food specialisations</b> explain how and why food and fibre are produced in managed environments explain how the characteristics of foods influence selection and preparation for healthy eating	
<b>Proposed WA Curriculum</b>	<p>Food selected to nourish the body, for energy to move and support growth For example:</p> <ul style="list-style-type: none"> <li>food models, such as the 'traffic light' system, or 'crunch and sip' to select food</li> <li>'mindful eating' to nourish the body</li> <li>consumption of wholegrain products for energy to move</li> <li>rehydrate with water</li> </ul>	<p>Physical properties of food influence selection and preparation For example:</p> <ul style="list-style-type: none"> <li>appearance of food, such as colour, size, shape, gloss</li> <li>texture – mouthfeel, savour the flavour, eat slowly, eat for enjoyment</li> <li>freshness; 'old' banana suitable for baking, but not eating</li> </ul>	<p>Systems for food preparation and food safety affect selection of food for meals/products For example:</p> <ul style="list-style-type: none"> <li>'assembly line' system of prepared ingredients for lunch foods, such as sandwiches, wraps</li> <li>a food safety system could include: <ul style="list-style-type: none"> <li>clean surfaces, utensils, hands</li> <li>separate raw and cooked foods</li> <li>storage at appropriate temperatures, in containers</li> </ul> </li> <li>food suitable for a school lunch box or family picnic to include babies, toddlers, adults and/or seniors</li> </ul>	<p>Food choices, consumer demands and preparation systems affect the use of a food in a meal/product For example:</p> <ul style="list-style-type: none"> <li>food selection guides, such as the <i>Australian Guide to Healthy Eating, Healthy Eating Pyramid</i> to make food choices</li> <li>'what to eat' and 'how we eat'; mindful eating; regular meals versus grazing</li> <li>ethical considerations affect food choices for inexpensive and inventive recipes to provide food that is nutritious and nourishing</li> </ul>

## Materials and technologies specialisations

	Year 3	Year 4	Year 5	Year 6
<b>Current WA Curriculum</b>	Suitability and safe practice when using materials, tools and equipment for a range of purposes	Suitability and safe practice when using materials, systems and components for a range of purposes	Characteristics and properties of a range of materials and components, and the suitability and safe practice of their use	Characteristics, properties and safe practice of a range of materials, systems, tools and equipment; and evaluate the suitability of their use
<b>Australian Curriculum v9</b>	<b>Technologies context: Engineering principles and systems; Materials and technologies specialisations</b> describe how forces and the properties of materials affect function in a product or system		explain how characteristics and properties of materials, systems, components, tools and equipment affect their use when producing designed solutions	
<b>Proposed WA Curriculum</b>	<p>Properties of materials, suitability and safe practice using given technologies to create a product to achieve a purpose</p> <p>For example:</p> <ul style="list-style-type: none"> <li>magnifying glass to view the structure of materials and relate to purpose, such as non-woven textiles for waterproofing</li> <li>flying objects built from different, selected materials and safely test</li> <li>model raft construction from different materials, such as local grasses, pop sticks and observe performance</li> <li>system of paper making for a product, considering design features, such as colour, strength, functionality, shape (for a small bowl)</li> </ul>	<p>Properties of materials and components for a range of purposes, affect suitability and function in a system</p> <p>For example:</p> <ul style="list-style-type: none"> <li>ways the different properties of materials and selected components affect the function of a carry bag/basket, such as a cloth carry bag and a woven basket</li> <li>a decorative face mask, produced safely from a range of materials, to achieve a given purpose, such as a community celebration</li> <li>how the various materials used to construct musical instruments affect the function of the instrument</li> </ul>	<p>Properties for a range of materials, related components and use of given technologies to achieve a purpose</p> <p>For example:</p> <ul style="list-style-type: none"> <li>various fibres combined to twist or plait a rope/belt, considering function, durability and aesthetics for fabric production</li> <li>properties of material used to protect and transport items, such as a laptop, cricket bat, a dozen eggs</li> <li>range of materials, like paper or board with plain or patterned surfaces used to create (origami) shapes, designed to achieve a purpose, such as kite making, gifts cards, celebrations, decorations</li> </ul>	<p>Properties of selected materials, technologies, and production systems affect suitability and functionality in a product</p> <p>For example:</p> <ul style="list-style-type: none"> <li>combination of materials to secure and identify a bike or personal schoolbag</li> <li>combination of materials and technologies to produce a photo frame using a planned production system</li> <li>combination of materials and components suitable for babies, toddlers and children</li> </ul>

## Creating solutions

### Investigating and defining

	Year 3	Year 4	Year 5	Year 6
<b>Current WA Curriculum</b>	Create a sequence of steps to solve a given task	Define a sequence of steps to design a solution for a given task	Define a problem, and set of sequenced steps, with users making a decision to create a solution for a given task	Define a problem, and set of sequenced steps, with users making multiple decisions to create a solution for a given task
		Identify and choose the appropriate resources from a given set	Identify available resources	Identify and select available resources
<b>Australian Curriculum v9</b>	explore needs or opportunities for designing, and test materials, components, tools, equipment and processes needed to create designed solutions		investigate needs or opportunities for designing, and the materials, components, tools, equipment and processes needed to create designed solutions	
<b>Proposed WA Curriculum</b>	Define ideas and design opportunities for individual and/or local needs	Define the features of a design brief and the requirements of a design task for a community need	Break down a design brief to define the purpose and requirements for a given task	Break down a design brief to define the purpose, requirements and constraints for a given task
		Investigate and select resources based on properties for the given task	Investigate and select resources based on properties and functions for the given task	Investigate and select resources considering constraints, properties and functions appropriate for the given task

### Designing

	Year 3	Year 4	Year 5	Year 6
<b>Current WA Curriculum</b>	Develop and communicate ideas using labelled drawings and appropriate technical terms	Develop and communicate design ideas and decisions using labelled drawings and appropriate technical terms	Develop and communicate alternative solutions, and follow design ideas, using annotated diagrams, storyboards and appropriate technical terms	Design, modify, follow and represent both diagrammatically, and in written text, alternative solutions using a range of techniques, appropriate technical terms and technology
<b>Australian Curriculum v9</b>	generate and communicate design ideas and decisions using appropriate attributions, technical terms and graphical representation techniques, including using digital tools		generate, iterate and communicate design ideas, decisions and processes using technical terms and graphical representation techniques, including using digital tools	
<b>Proposed WA Curriculum</b>	Design solutions created with labelled drawings, use of technical terms and/or a sequence of steps	Design solutions through use of labelled drawings, technical terms, decision-making and/or a sequence of steps	Design solutions considering competing factors, with annotated diagrams, storyboards and/or a sequence of steps, using technical terms and an iterative process	Design alternative solutions achieved through an iterative process including critical thinking, graphical representations, use of a range of technologies, techniques, technical terms and/or a sequence of steps

## Producing and implementing

	Year 3	Year 4	Year 5	Year 6
<b>Current WA Curriculum</b>	Select, and safely use, appropriate components with given equipment to make a solution	Select, and safely use, appropriate components and equipment to make solutions	Select, and apply, safe procedures when using components and equipment to make solutions	Select, and apply, safe procedures when using a variety of components and equipment to make solutions
<b>Australian Curriculum v9</b>	select and use materials, components, tools, equipment and techniques to safely make designed solutions		select and use materials, components, tools, equipment and techniques to safely make designed solutions	
<b>Proposed WA Curriculum</b>	Use agreed protocols, appropriate technologies and components with given equipment to create a designed solution	Use agreed protocols, appropriate technologies, components and/or equipment to produce a designed solution	Implement agreed protocols when using technologies, components and/or equipment to produce a designed solution	Implement agreed protocols when using a range of technologies, components and/or equipment to produce a designed, quality-controlled solution

## Evaluating

	Year 3	Year 4	Year 5	Year 6
<b>Current WA Curriculum</b>	Use criteria to evaluate design processes and solutions developed	Use criteria to evaluate and justify simple design processes and solutions	Develop negotiated criteria to evaluate and justify design processes and solutions	Develop collaborative criteria to evaluate and justify design processes and solutions
<b>Australian Curriculum v9</b>	use given or co-developed design criteria including sustainability to evaluate design ideas and solutions		negotiate design criteria including sustainability to evaluate design ideas, processes and solutions	
<b>Proposed WA Curriculum</b>	Use given criteria to evaluate diagrams, technologies and the components used for the designed solution	Use given criteria to evaluate design features, selected resources, decision-making processes and the designed solution	Use given criteria to evaluate design features, consideration of competing factors, processes and the designed solution	Develop negotiated criteria to evaluate design features, graphics, selected technologies, processes, functionality and consideration of constraints and the designed solution



## Collaborating and managing

	Year 3	Year 4	Year 5	Year 6
<b>Current WA Curriculum</b>	Work independently, or collaboratively when required, to plan, safely create and communicate sequenced steps	Work independently, or collaboratively when required, to plan, safely develop and communicate ideas and information for solutions	Work independently, or collaboratively when required, to plan, safely develop and communicate ideas and information for solutions	Work independently, or collaboratively when required, considering resources and safety, to plan, develop and communicate ideas and information for solutions
<b>Australian Curriculum v9</b>	sequence steps to individually and collaboratively make designed solutions		develop project plans that include consideration of resources to individually and collaboratively make designed solutions	
<b>Proposed WA Curriculum</b>	Communicate ideas and follow a plan with consideration of time management to develop a solution	Use agreed conventions and management roles to communicate ideas, plan and make decisions to develop solutions	Use agreed conventions and management roles to communicate decisions, plan and manage time to develop designed solutions	Use agreed conventions to set goals, manage competing factors, resources and time, to plan, develop and communicate decisions to develop designed solutions for a given task