**Western Australian Curriculum**

Technologies| Design and Technologies

ABLE*WA* Stages A–D

**Content Descriptions, Elaborations and Achievement Standards**

**Copyright**

© School Curriculum and Standards Authority, 2018

This document—apart from any third party copyright material contained in it—may be freely copied, or communicated on an intranet, for non-commercial purposes in educational institutions, provided that the School Curriculum and Standards Authority is acknowledged as the copyright owner, and that the Authority’s moral rights are not infringed.

Copying or communication for any other purpose can be done only within the terms of the *Copyright Act 1968* or with prior written permission of the School Curriculum and Standards Authority. Copying or communication of any third party copyright material can be done only within the terms of the *Copyright Act 1968* or with permission of the copyright owners.

Any content in this document that has been derived from the Australian Curriculum may be used under the terms of the Creative Commons [Attribution 4.0 International (CC BY)](https://creativecommons.org/licenses/by/4.0/) licence.

The School Curriculum and Standards Authority acknowledges the development of the ABLES Assessment Tool by the University of Melbourne and the Department of Education and Training, Victoria and the Victorian Curriculum and Assessment Authority for their development and publication of the ABLES Curriculum and Support Materials.

**Stage A | Content descriptions**

**Knowledge and understanding**

|  |  |
| --- | --- |
| **Technologies and society** | **Elaborations** |
| Experience how people create familiar [designed solutions](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/designed-solution) to meet their needs [(VCDSTS001)](https://k10outline.scsa.wa.edu.au/home/teaching/codes/technologies/design-and-technologies/ablewa-stage-a/vcdsts001) | * experiencing designed solutions such as harvesting products from the school garden
* being exposed to people making design decisions based on personal needs. For example, the types of tools and equipment used in the school garden
* experiencing the use and impact of technologies in their life such as types of outdoor play equipment
 |
| **Technologies contexts** | **Elaborations** |
| Experience the [characteristics](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/characteristics) and [properties](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/property) of familiar [designed solutions](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/designed-solution) in at least one [technologies](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/technologies) [context](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/context) [(VCDSTC002)](https://k10outline.scsa.wa.edu.au/home/teaching/codes/technologies/design-and-technologies/ablewa-stage-a/vcdstc002) | * experiencing toys and objects and use force to produce movement, sound or light, for example, a fan or pull-along toy
* reacting to the sensory characteristics of a plant or animal
* reacting to the sensory properties of different foods
* experiencing materials characterised by their softness, hardness, flexibility, density
 |

**Processes and production skills**

|  |  |
| --- | --- |
| **Creating designed solutions** | **Elaborations** |
| React to a designed solution that has been created and produced safely to meet their needs[(VCDSCD003)](https://k10outline.scsa.wa.edu.au/home/teaching/codes/technologies/design-and-technologies/ablewa-stage-a/vcdscd003) | * communicating simple choices through accept or reject actions as they experience making, doing and drawing
* learning to indicate what they like when prompted
* experiencing the production of a designed solution, for example, tasting fruit salad
* experiencing being part of a group design process
 |

**Stage A | Achievement standard**

By the end of Stage A, students react to significant [designed solutions](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/designed-solution) that meet their needs.

With guidance, students experience [designed solutions](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/designed-solution) in at least one [technologies](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/technologies) [context](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/context). They begin to communicate their needs and indicate a choice or preference through accept and reject actions.

Students react to the use of [tools](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/tool) and [equipment](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/equipment) and experience the sequenced steps involved in [producing](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/producing) a designed solution.

**Stage B | Content descriptions**

**Knowledge and understanding**

|  |  |
| --- | --- |
| **Technologies and society** | **Elaborations** |
| Explore the use of familiar [designed solutions](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/designed-solution) to meet their needs [(VCDSTS004)](https://k10outline.scsa.wa.edu.au/home/teaching/codes/technologies/design-and-technologies/ablewa-stage-a/vcdsts001) | * experiencing designed solutions such as harvesting products from the school garden
* being exposed to people making design decisions based on personal needs. For example, the types of tools and equipment used in the school garden
* experiencing the use and impact of technologies in their life such as types of outdoor play equipment
 |
| **Technologies contexts** | **Elaborations** |
| Explore the [characteristics](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/characteristics) and [properties](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/property) of familiar [designed solutions](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/designed-solution) in at least one [technologies](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/technologies) [context](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/context) [(VCDSTC005)](https://k10outline.scsa.wa.edu.au/home/teaching/codes/technologies/design-and-technologies/ablewa-stage-b/vcdstc005) | * beginning to appropriately push or pull an object to make it work, for example, push a toy car or spin a top
* learning how to care for a plant or animal
* beginning to use tools and equipment needed to prepare food
* discovering the characteristics of materials, for example, materials that float or sink
 |

**Processes and production skills**

|  |  |
| --- | --- |
| **Creating designed solutions** | **Elaborations** |
| Experience and explore how [designed solutions](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/designed-solution) are created and produced safely to meet personal needs[(VCDSCD006)](https://k10outline.scsa.wa.edu.au/home/teaching/codes/technologies/design-and-technologies/ablewa-stage-b/vcdscd006) | * communicating a design idea by selecting and indicating materials, for example, identifying what ingredients to put in a sandwich
* collecting, giving and sharing materials when prompted
* working with others by helping hold, wait, stick, join and put materials together
 |

**Stage B | Achievement standard**

By the end of Stage B, students are using some familiar [designed solutions](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/designed-solution) appropriately to meet their needs.

With guidance, students explore [designed solutions](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/designed-solution) in at least one [technologies](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/technologies) [context](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/context). They experience designed solution ideas and select [materials](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/material) and [components](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/components) based on personal preferences.

Students follow a design process step by step and use [tools](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/tool) safely when prompted.

**Stage C | Content descriptions**

**Knowledge and understanding**

|  |  |
| --- | --- |
| **Technologies and society** | **Elaborations** |
| Match familiar [designed solutions](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/designed-solution) to the personal needs they meet [(VCDSTS007)](https://k10outline.scsa.wa.edu.au/home/teaching/codes/technologies/design-and-technologies/ablewa-stage-c/vcdsts007) | * making a decision from a variety of options to meet a need, for example, matching kitchen utensils or garden tools to a specific use
* selecting and using products for a specific need, for example, identifying ways to be shaded from the sun/be ‘sun safe’
* suggesting ideas about the use of a product and what need it meets, for example, ‘what do you use scissors for?’
 |
| **Technologies contexts** | **Elaborations** |
| Examine and indicate the [characteristics](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/characteristics) and [properties](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/property) of familiar [designed solutions](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/designed-solution) in at least two [technologies](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/technologies) contexts [(VCDSTC008)](https://k10outline.scsa.wa.edu.au/home/teaching/codes/technologies/design-and-technologies/ablewa-stage-c/vcdstc008) | * beginning to group designed solutions based on similar characteristics, for example, those that make a noise or bounce
* beginning to identify and describe some familiar plants and animals, for example, plants we eat
* describing the sensory properties of food according to its colour, taste, texture or smell, for example, green vegetables or sweet foods
 |

**Processes and production skills**

|  |  |
| --- | --- |
| **Creating designed solutions** | **Elaborations** |
| Examine and indicate how [designed solutions](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/designed-solution) are created and produced safely to meet needs [(VCDSCD009)](https://k10outline.scsa.wa.edu.au/home/teaching/codes/technologies/design-and-technologies/ablewa-stage-a/vcdsts001) | * experiencing designed solutions such as harvesting products from the school garden
* being exposed to people making design decisions based on personal needs. For example, the types of tools and equipment used in the school garden
* experiencing the use and impact of technologies in their life such as types of outdoor play equipment
 |

**Stage C | Achievement standard**

By the end of Stage C, students use and [identify](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/identify) the purpose of familiar [designed solutions](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/designed-solution). They match some [designed solutions](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/designed-solution) to a need.

Students use [designed solutions](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/designed-solution) in at least two [technologies](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/technologies) contexts. With guidance, students reflect on created and produced [designed solutions](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/designed-solution), developing ideas based on personal preferences. They begin to follow simple sequenced steps and teacher direction to use [tools](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/tool) and [equipment](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/equipment) safely when [producing](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/producing) [designed solutions](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/designed-solution).

**Stage D | Content descriptions**

**Knowledge and understanding**

|  |  |
| --- | --- |
| **Technologies and society** | **Elaborations** |
| Explore how people create familiar [designed solutions](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/designed-solution) and [identify](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/identify) their ability to meet personal and local community needs [(VCDSTS010)](https://k10outline.scsa.wa.edu.au/home/teaching/codes/technologies/design-and-technologies/ablewa-stage-d/vcdsts010) | * making design decisions in everyday activities, for example, ‘what should we cook today and why?’
* exploring what technologies they use in their daily life, for example, ‘what tools and equipment do we need to grow vegetables?’
* exploring how and why their local environment has changed over time, for example, new buildings or play equipment
 |
| **Technologies contexts** | **Elaborations** |
| Explore and communicate the [characteristics](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/characteristics) and [properties](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/property) of familiar [designed solutions](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/designed-solution) in at least two [technologies](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/technologies) contexts [(VCDSTC011)](https://k10outline.scsa.wa.edu.au/home/teaching/codes/technologies/design-and-technologies/ablewa-stage-d/vcdstc011) | * experimenting with materials and techniques to make movement, for example, to roll or float
* exploring the safe use of tools in the care and use of plants and animals
* using tools and equipment safely and hygienically to prepare simple, healthy food
* discovering uses for materials and components, for example, how household packaging can be used to represent other objects
 |

**Processes and production skills**

|  |  |
| --- | --- |
| **Creating designed solutions** | **Elaborations** |
| Explore and communicate how [designed solutions](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/designed-solution) are generated and produced to meet needs [(VCDSCD012)](https://k10outline.scsa.wa.edu.au/home/teaching/codes/technologies/design-and-technologies/ablewa-stage-d/vcdscd012) | * using a common testing method and recording results, for example, taste-testing comparison of food products and recording results as a happy or sad face
* identifying the jobs or roles of each member of the groups when completing a task
* gathering and using materials, tools and equipment to make a designed solution, for example, watering and mulching the garden
* following steps to assemble a system and checking that it functions as planned, for example, following instructions to build a spaceship using building blocks
 |

**Stage D | Achievement standard**

By the end of Stage D, students describe the purpose of familiar [designed solutions](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/designed-solution) and what needs they meet.

Students use [designed solutions](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/designed-solution) in at least two [technologies](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/technologies) contexts, identifying significant [features](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/features).

With guidance, students create [designed solutions](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/designed-solution) evaluating their ideas based on personal preferences. They select [materials](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/material) based on some understanding of their [properties](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/property) and [characteristics](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/characteristics). They follow simple sequenced steps to create a designed solution and demonstrate the safe use of [tools](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/tool) and [equipment](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/technologies-overview/glossary/equipment).