## Market day key ring

**Grade Level/s:** 6, 5, 4  
**Subject/s:** Technologies, Mathematics  
**Type:** Unit Plan  
**Author:** Stacey Wirper

### Single Lesson Plan

**Keyring Designs**

<table>
<thead>
<tr>
<th>Task:</th>
<th>Activity:</th>
<th>Resources:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Makers Empire app and creation of usernames.</td>
<td>Task: explore and work through tutorials becoming familiar with techniques.</td>
<td>iPads, '10 ways to get started Makers Empire' activity document, YouTube clips</td>
</tr>
<tr>
<td>Exploring Makers Empire Work through 2 or 3 activities from '10 ways to get started Makers Empire' activity document.</td>
<td>Discussion: What is a 3D printer? What does it look like? What can it print? How can it help people? Watch clips and discussion about these questions. Discussion: How long it takes to print something? Based on 1 hour 7 mins per item, how long will it take to print an item for everyone in the class? In the school? How many days/week/months it that?</td>
<td>Images of fish tank accessories, 3D printed plant pots, keyrings</td>
</tr>
<tr>
<td>Decide on our project.</td>
<td>Pose 3 choices on project we could undertake. 'Fish playground' for our class fish tank 'Plant pot' to grow seedlings for garden outside our classroom 'Keyring / bag tag' – If we had market day again what keyring / bag tag design would you create? * Look at images for all 3 projects to give students an understanding of what they could design. Students vote for the project they would like the class to design and create, majority wins. *</td>
<td></td>
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</tbody>
</table>

*In term 1 the year 5 students created business plans and products to sell to students, staff and parents at their Market Day with monies raised going toward Year 5 camp and resources.*
Designing keyrings

Students will draw designs of their keyrings/bag tags with hypothetical customers in mind. Keyrings/bag tags should not have a person’s name on it. Brainstorm what designs other people in the school would like to buy. Begin designing in Blocker or Shaper. Designs need to be between 50-70mm in length, 30-70mm in width and 5mm in depth and will need a hole or a ring to attach it to keys/school bag.

Set passwords and continue work on designs.

Reminder that 10mm equals 1cm and need to use the ruler function to check size of design. Encourage students to use a physical ruler to get a visual on size of the design.

Continue work on designs.

Point out that any text or designs need to be lifted from the base plate due to keyrings/bag tags being printed in one colour. Reminder to check size of design and make sure they fit the required measurements.

Pose survey question and survey students in the school (potential customers) to gauge most popular designs. (2 lessons)

Use task sheet to gather data from surveyed students. Work in groups of 3/4 and visit assigned classes around the school. Use a column graph to represent data then analyse it and make 3 comments about the collected data. Collate data as a class list.

Create a graph using survey data using Excel

Import class survey data from Word document on shared drive and walk through how this is imported into Excel and a graph is created, step by step.

Reflection

Does your design look like your drawing? What have you changed and why? What have you learnt doing this project? What has been the best part of this project? If you could change anything about your design what would you change? What score would you give this project out of ten? *Responses can be recorded for challenged writers.

Curriculum

South Australian TTEL:

2.1 develop democratic relationships
2.2 build a community of learners
Domain 4: Personalise and connect learning
4.1 build on learners’ understandings
4.2 connect learning to students’ lives and aspirations
4.3 apply and assess learning in authentic contexts
4.4 communicate learning in multiple modes
3.1 teach students how to learn
3.2 foster deep understanding and skilful action
3.3 explore the construction of knowledge

Australian Curriculum:

Technologies
link (aus_curriculum/technologies.json)

Playing With And Using Different Digital Systems For Transferring And Capturing Data, For Example Using A Tablet To Take A Photograph Of A Grandparent And Recording An Interview With Them About Life In The Past (ELBT415)
link (http://rdf.australiancurriculum.edu.au/elements/2014/09/d52b7938-4bd2-4a4f-8930-2a0c60342c46)

Exploring And Using Digital Systems For Downloading And Storing Information, For Example Knowing How To Download Images From A Website And Inserting Them Into A Document; Saving And Retrieving Data (ELBT298)
link (http://rdf.australiancurriculum.edu.au/elements/2014/09/9f73e6de-527b-444e-9a25-6d5b7a1e66fc)

Exploring And Identifying Hardware And Software Components Of Digital Systems When Creating Ideas And Information, For Example Experimenting With Different Ways Of Providing Instructions To Games Software Using A Mouse, Touch Pad, Touch Screen, Keyboard, Stylus, Or Switch Scanning Device, And Using Different Software To Manipulate Text, Numbers, Sound And Images (ELBT263)
link (http://rdf.australiancurriculum.edu.au/elements/2014/09/46e393a5-3a1f-4f2a-9d33-7a300ff5fe0f)

Recognising And Using Hardware And Software Components Of Digital Systems And Experimenting With Their Functions, For Example Playing With Interactive Toys And Robotic Devices To Determine Which Ones Can Work With Other Devices (ELBT43)
link (http://rdf.australiancurriculum.edu.au/elements/2014/09/629fcb1b-9568-4d4f-8497-eb14e3a7e8a9)

Recognising That A Digital System Follows Instructions Or Commands, For Example Instructing Robotic Toys To Perform A Function Such As A Dance Movement (ELBT402)
link (http://rdf.australiancurriculum.edu.au/elements/2014/09/6b512f8b-9105-4a1f-8b5c-344b9f9d9daa)

Constructing A Model Of A Real Or Imaginary Digital Systems Device For Use In Role Play Scenarios And Explaining The Features Of The Device To An Adult (ELBT304)
Planning And Creating Text, Drawings And Sound Files To Share Online, For Example Jointly Creating A Photo Story To

Example Comparing Current Digital Play Equipment With Play Equipment Of 20 Years Ago (ELBT433)

Sharing Ideas About The Ways Information Systems Are Being Used By Families And Friends In Everyday Life, For

Speech Software For People With Vision Loss (ELBT314)

Discussing How A Range Of Information Systems Support Personal Needs And Impact On Others, For Example Text To

The Need To Take Regular Breaks To Avoid Eye Strain And Repetitive Strain Injuries (ELBT151)

Recognising Safe Ergonomic Practices When Children Are Playing With Information Systems, For Example Recognising

Means Of Protecting Identity (ELBT125)

Recognising And Discussing The Need For Cyber Safety When Using Online Information Systems, For Example

Example Computers Can Be Used As Phones And Social Networking Tools Allowing Communication Between Families

And Storing It To Include In A Slow Motion (ELBT379)

Following A Series Of Instructions To Use A Piece Of Hardware Or Software, For Example Taking A Photograph, Editing

link

Recognising Sequences Of Instructions Or Events That Are Commonly Experienced Such As The Sequence Of Trac

Visualisation Software To Create A Mind Map (Diagram) Showing Relationships Between Characters In A Story (ELBT275)

Using Digital Systems To Organise Data To Improve Meaning, For Example Using Word Processing Software To Create A

List Of Tasks Or Visualisation Software To Create A Mind Map (Diagram) Showing Relationships Between Characters In A Story

Collecting, And Sorting Data Through Play, For Example Collecting Data About Favourite Toys And Sorting Them Into Categories Such As Toys They Like Or Dislike (ELBT23)

Locating And Purposefully Using Visual Or Text Data, For Example Searching Through A Digital Photo Library To Select An Image, Taking Into Account Cultural Considerations Such As Awareness Of Appropriate Use Of Images And Audio Recordings Of Deceased Persons (ELBT172)

Using Digital Systems To Organise Data To Improve Meaning, For Example Using Word Processing Software To Create A List Of Tasks Or Visualisation Software To Create A Mind Map (Diagram) Showing Relationships Between Characters In A Story

Exploring, Imagining And Comparing The Usefulness Of Different Data Displays, For Example Jointly Creating Simple Column Graphs And Picture Graphs To Represent Different Types Of Items (ELBT293)

Identifying Patterns Or Sequences In Data, For Example Using Digital Systems To Organise Data To Improve Meaning, For Example Using Word Processing Software To Create A List Of Tasks Or Visualisation Software To Create A Mind Map (Diagram) Showing Relationships Between Characters In A Story

Writing And Entering A Simple Set Of Instructions Jointly To Sequence Events And Instructions, For Example Scanning Personal Photographs And Collating And Ordering Significant Personal Events Or Milestones And Describing The Steps Involved In The Process (ELBT59)

Presenting A Sequence Of Instructions Or Events In A Series Of Slides Or Screens With Text And Pictures (ELBT247)

Recognising Sequences Of Instructions Or Events That Are Commonly Experienced Such As The Sequence Of Traffic Lights Or Instructions For Recording A Tv Show Or How Their Lunch Order Is Taken And Delivered (ELBT146)

Following A Series Of Instructions To Use A Piece Of Hardware Or Software, For Example Taking A Photograph, Editing And Storing It To Include In A Slow Motion (ELBT379)

Recognising And Discussing The Need For Cyber Safety When Using Online Information Systems, For Example Recognising That Shared Personal Information Can Be Used For Undesirable Purposes And That Using A Password Is A Means Of Protecting Identity (ELBT125)

Sharing And Describing Ways That Common Information Systems Can Be Used To Meet Communication Needs, For Example Computers Can Be Used As Phones And Social Networking Tools Allowing Communication Between Families Living In Different Regions (ELBT876)

Recognising Safe Ergonomic Practices When Children Are Playing With Information Systems, For Example Recognising The Need To Take Regular Breaks To Avoid Eye Strain And Risk Of Strain Injuries (ELBT195)

Discussing How A Range Of Information Systems Support Personal Needs And Impact On Others, For Example Text To Speech Software For People With Vision Loss (ELBT314)

Sharing Ideas About The Ways Information Systems Are Being Used By Families And Friends In Everyday Life, For Example Comparing Current Digital Play Equipment With Play Equipment Of 20 Years Ago (ELBT433)

Using Different Types Of Data To Create Information For Sharing Online, For Example Creating A Multimedia Class Profile That Includes A Photo Of Each Student, A Personal Audio Recording And A Written Message (ELBT462)

Planning And Creating Text, Drawings And Sound Files To Share Online, For Example Jointly Creating A Photo Story To Illustrate A Fable Or Fairy Tale From The Asia Region Or A Local Aboriginal And Torres Strait Islander Community Story (ELBT63)

Making Ethical Decisions When Using Images For Public Viewing And Using The Work Of Others, For Example Asking The Question 'What Is Fair And Just?' To Compare Images Of Events Or Activities And Decide Whether Or Not To Publish (ELBT77)
Collect, explore and sort data, and use digital systems to present the data creatively (ACTDIP003).

Follow, describe and represent a sequence of steps and decisions (algorithms) needed to solve simple problems (ACTDIP004).

Explore how people safely use common information systems to communicate, information and recreation needs (ACTDIP005).

Using Different Peripheral Devices To Display Information To Others, For Example Using A Mobile Device, Interactive Whiteboard Or A Data Projector To Present Information (ELBT117).

Using Specific Peripheral Devices To Capture Different Types Of Data, For Example Using A Digital Microscope To Capture Images Of Living And Non Living Things (ELBT199).

Experimenting With Different Types Of Digital System Components And Peripheral Devices To Perform Input, Output And Storage Functions, For Example A Keyboard, Stylus, Touch Screen, Switch Scan Device Or Joystick To Input Instructions; A Monitor, Printer Or Tablet To Display Information, A Usb Flash Drive And External Hard Drive As Storage Peripheral Devices (ELBT83).

Recognising That Images And Music Can Be Transferred From A Mobile Device To A Computer, For Example Using A Cable To Connect A Camera And Computer To Upload Images For A Photo Story (ELBT75).

Using A Table To Reorganise Information That Includes Sentences, And/Or Words, And/Or Numbers And/Or Images (ELBT138).

Recognising Representations Of Different Types Of Data Such As Waves For Sound (ELBT179).

Exploring Codes And Symbols That Are Representations Of Data, For Example Morse Code And Semaphore And How Similar Symbols In Aboriginal And Torres Strait Islander Art Can Represent Different Concepts Depending On The Context, For Example Three Circles, Drawn As Lines, Can Represent Ants, Fruit, Flowers Or Eggs Depending On The Art Region (ELBT292).

Using Different Techniques To Present Data As Information, For Example Creating A Column Chart In A Spreadsheet By Using Different Types Of Data (ELBT126).

Improving The Appearance And Usability Of Data, For Example Using Colour, Headings And Labelling Of Images To Organise And Accurately Identify Data (ELBT286).

Improving Online Sources To Access Data, For Example Using Online Query Interfaces To Select And Retrieve Data From An Online Database Such As A Library Catalogue Or Weather Records (ELBT105).

Recognising That All Types Of Data Are Stored In Digital Systems And May Be Represented In Different Ways Such As Files And Folders With Names And Icons (ELBT256).

Explaining What The Problem Is And Some Features Of The Problem, Such As What Need Is Associated With The Problem, Who Has The Problem And Why (ELBT199).

Describing, Using Drawings, Pictures And Text, The Sequence Of Steps And Decisions In A Solution, For Example To Show The Order Of Events In A Game And The Decisions That A Player Must Make (ELBT274).

Experimenting With Different Ways Of Describing A Set Of Instructions, For Example Writing Two Versions Of The Same Simple Set Of Instructions For A Programmable Robotic Device (ELBT72).

Explaining To Others How To Follow Technical Instructions, For Example How To Capture And Download Images From A Mobile Device (ELBT111).

Defining And Describing The Sequence Of Steps Needed To Incorporate Multiple Types Of Data In A Solution, For Example Sequencing The Steps In Selecting And Downloading Images And Audio To Create A Book Trailer (ELBT417).
Using Different Design Tools To Record Ways In Which Digital Solutions Will Be Developed, For Example Creating Storyboards Or Flowcharts To Record Relationships Or Instructions About Content Or Processes (ELBT910)

Exploring Common Elements Of Standard User Interfaces That Are Familiar And Appeal To Users, For Example Navigation Links On The Left And Top Of Web Pages To Help Users Interact With The Site (ELBT381)

Implementing Programs That Make Decisions On The Basis Of User Input Or Choices Such As Through Selecting A Button ToA A Key Or Moving A Mouse To 'Branch' To A Different Segment Of The Solution (ELBT256)

Exploring Systems That Suit Particular Home Or Personal Needs, For Example Using Speech Recognition Software That Can Help Speakers Whose Language Background Is Not English, Or A System To Monitor Energy Or Water Consumption In The Home (ELBT84)

Making Ethical Decisions When Faced With Reporting Inappropriate Online Behaviour Or Acknowledging Digital Products Created By Others, For Example Making A Decision Based On How Individuals Would Like To Be Treated By Others (ELBT321)

Using A Range Of Online Tools To Share Information And Being Aware That Information May Be Received At Different Times, For Example Adding Entries Or Online Chat With An Author, Or Participating In A Forum On A Specific Topic (ELBT222)

Making Judgements About The Adequacy Of Developed Solutions, For Example Testing A Digital Solution Before More People Use It (ELBT431)

Creating Options For Users To Make Choices In Solutions, For Example A User Input And Branching Mechanism Such As Buttons In A Slideshow (ELBT244)

Implementing Programs That Make Decisions On The Basis Of User Input Or Choices Such As Through Selecting A Button ToA A Key Or Moving A Mouse To 'Branch' To A Different Segment Of The Solution (ELBT256)

Exploring Systems That Suit Particular Home Or Personal Needs, For Example Using Speech Recognition Software That Can Help Speakers Whose Language Background Is Not English, Or A System To Monitor Energy Or Water Consumption In The Home (ELBT84)

Testing The Adequacy Of Developed Solutions, For Example Asking A Classmate To Review A Digital Solution And Provide Feedback (ELBT216)

Using A Range Of Online Tools To Share Information And Being Aware That Information May Be Received At Different Times, For Example Adding Entries Or Online Chat With An Author, Or Participating In A Forum On A Specific Topic (ELBT222)

Organising And Creating Different Types Of Information For Sharing And Collaborating Online, For Example Planning The Sequence And Appearance Of An Animation, And Sharing It With Others From Another School (ELBT437)

Designing And Implementing A Simple Interactive Digital Solution Using A Visual Programming Language, For Example Designing And Implementing A Simple Interactive Digital Solution Using A Visual Programming Language (ELBT205)

Using Different Design Tools To Record Ways In Which Digital Solutions Will Be Developed, For Example Creating Storyboards Or Flowcharts To Record Relationships Or Instructions About Content Or Processes (ELBT910)

Exploring Common Elements Of Standard User Interfaces That Are Familiar And Appeal To Users, For Example Navigation Links On The Left And Top Of Web Pages To Help Users Interact With The Site (ELBT381)

Implementing Programs That Make Decisions On The Basis Of User Input Or Choices Such As Through Selecting A Button ToA A Key Or Moving A Mouse To 'Branch' To A Different Segment Of The Solution (ELBT256)

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Organising And Creating Different Types Of Information For Sharing And Collaborating Online, For Example Planning The Sequence And Appearance Of An Animation, And Sharing It With Others From Another School (ELBT437)

Designing And Implementing A Simple Interactive Digital Solution Using A Visual Programming Language, For Example Designing And Implementing A Simple Interactive Digital Solution Using A Visual Programming Language (ELBT205)

Using Different Design Tools To Record Ways In Which Digital Solutions Will Be Developed, For Example Creating Storyboards Or Flowcharts To Record Relationships Or Instructions About Content Or Processes (ELBT910)

Exploring Common Elements Of Standard User Interfaces That Are Familiar And Appeal To Users, For Example Navigation Links On The Left And Top Of Web Pages To Help Users Interact With The Site (ELBT381)

Implementing Programs That Make Decisions On The Basis Of User Input Or Choices Such As Through Selecting A Button ToA A Key Or Moving A Mouse To 'Branch' To A Different Segment Of The Solution (ELBT256)

Exploring Systems That Suit Particular Home Or Personal Needs, For Example Using Speech Recognition Software That Can Help Speakers Whose Language Background Is Not English, Or A System To Monitor Energy Or Water Consumption In The Home (ELBT84)

Testing The Adequacy Of Developed Solutions, For Example Asking A Classmate To Review A Digital Solution And Provide Feedback (ELBT216)
Recognising That Digital Systems Represent All Types Of Data Using Number Codes That Ultimately Are Patterns Of 0s And 1s (Called Digital Binary), It Is Why They Are Called Digital Systems (ELBT140)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/4b87b92b-6ae4-4b8e-83fe-ed4172de828c)

Recognising That Digital Systems Represent All Types Of Data Using Number Codes That Ultimately Are Patterns Of 0s And 1s (Called Digital Binary), It Is Why They Are Called Digital Systems (ELBT140)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/6590f0a6-8ba7-455c-8211-ec0015df524a)

Explaining That Binary Represents Numbers Using 0s And 1s And These Represent The On And Off Electrical States Respectively In Hardware And Robotics (ELBT368)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/64ab9988-c6af-4ef4-9b88-45fc59648673)

Recognising That The Numbers 0, 1, 2 And 3 Could Be Represented By The Patterns Of Two Binary Digits Of 00, 01, 10 And 11 (ELBT283)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/bf43babe-4774-456b-9650-6f02de88a666)

Representing Whole Numbers In Binary, For Example Counting In Binary From Zero To 15, Or Writing A Friend's Age In Binary (ELBT186)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/de566e8-316f-4c8e-8c32-a0080eac1883)

Exploring How Division By Two Can Be Used As A Technique To Determine The Binary Representation Of Any Whole Number By Collecting Remainder Terms (ELBT135)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/96eb86f2-c904-46f9-9f5a-b0adbaebb647)

Investigate The Main Components Of Common Digital Systems, Their Basic Functions And Interactions, And How Such Digital Systems May Connect Together To Form Networks To Transmit Data (ACTDX014)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/7798bb4-5c5f-442e-8a6e-7a267-59f7a53706cc)

Investigating How Digital Systems Use Whole Numbers As A Basis For Representing All Types Of Data (ACTDX015)


Using Digital Systems To Validate Data, For Example Setting Data Types In A Spreadsheet To Make Sure A Date Is Input Correctly (ELBT229)


Selecting And Using Peripheral Devices Suitable To The Data, For Example Using A Data Probe To Collect Data About Changing Soil Temperature For Plants, Interpreting The Data And Sharing The Results As A Digital Graph (ELBT229)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/073387ad-c5c9-4c4f-9c06-8545fa2676f0)

Recognising The Difference Between Numerical, Text And Date Formats In Spreadsheets (ELBT451)


Using Software To Automate Calculations To Help With Interpreting Data, For Example Using Functions To Make Arithmetic Calculations Using Multiple Cells And Summing Cell Ranges (ELBT38)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/103565bb-90c7-e0f9-94a3-ed29d6924f59)

Acquiring Data From Online Sources By Narrowing The Focus, For Example Filtering Data Using Provided Options Or Performing Searches Using Advanced Search Functions (ELBT385)


Using Data Visualisation Software To Help In Interpreting Trends, For Example Uploading Data To A Web Application And Building A Visualisation Of The Dataset (ELBT223)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/dcc66a3-370d-4e66-9eae-baaeb824224b)

Checking Existing Solutions To Identify Features That Are Transferrable To New But Similar Digital Solutions, For Example Identifying If There Are Any Similars Between An Existing Game And A New Game To Be Created – In Terms Of The Types Of Data And The Needs Of The Users (ELBT277)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/90b7b1d-1387-4f9b-b6f7-74c6f32a160c)

Investigating Characteristics Of User Interfaces That Are Common For Particular Types Of Problems, For Example, Touch Screens – Many People Respond More Intuitively Than When Using A Keyboard Or Stylus, And The Consistent Placement Of Symbols Helps With Performing Actions That Require Speed, For Example In Games (ELBT430)


Using And Interpreting Data, Establishing The Root Cause Of A Problem, For Example Using An Annotated Diagram To Identify Omissions, Duplications Or Mismatches Of Data (ELBT303)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/db72b49-f8b8-4ec6-b475-da6f4e5345b2)

Describing In Simple Terms The Nature Of A Problem And What A Solution Needs To Achieve, For Example What Need The Problem Is Associated With, Who The Solution Is Needed For, What Data Is Needed And What Features The Solution Would Need To Include (ELBT188)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/bb7b1177-6f4b-4e0b-bf1f-a05d5cc4f307)

Exploring Different Features Of User Interfaces That Allow People From Different Cultures To Access Information Irrespective Of Language Background, For Example Using Icons And Consistently Positioning Icons Or Symbols In Games Interfaces To Reduce The Frustrations Of Game Players (ELBT332)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/335cecf1-5e6e-4d27-4f3b-a3c5-59a2c401bc36)

Applying The Principles And Elements Of Design To A Set Of Requirements In Order To Produce A User Interface For A System That Addresses An Identified Need, For Example To Emphasise Or Highlight An Area Of The Screen To Draw The Viewer's Attention To An Event Or Action (ELBT169)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/8f9aba1d-1bf8-4c6b-a6df-ad17dfb9e503)

Designing The User Interface Of A Solution Using Different Design Tools, For Example Using A Storyboard To Outline The Stages Of A Game Or A Mock Up To Show The Placement Of Icons (ELBT212)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/1f4a46f91-b5fe-4c6b-95db-8c35bbf0e8f7)

Generating Alternative Desigs For A User Interface, For Example Sketching Different Concepts For A Splash Screen Of A Game Or Interactive Multimedia Experience (ELBT307)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/5c6c0ed0-7220-40fe-8e2e-635454343752)

Following A Diagram Of A Simple Method Of Sorting Numbers Or Words (ELBT240)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/576fe7d2-36dc-4a1a-ba67-82a0a2f9f6c3)

Following, Modifying And Describing The Design Of A Game Involving Simple Algorithms Represented Diagrammatically Or In English, That Uses Symbols To Show Decisions, Processes And Inputs And Outputs (ELBT366)


Experimenting With Different Ways Of Representing An Instruction To Make A Choice, For Example Branches In A Tree Diagram Or A Tree Diagram Or Using An "If" Statement (A Common Statement Used To Branch) To Indicate Making A Choice Between Two Different Circumstances Using A Spreadsheet Or A Visual Program (ELBT113)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/17797faff-d835-4d0b-9413-f5332f038ef)

Experimenting With Different Ways Of Representing An Instruction To Make A Repetition, For Example Loops In A Flowchart Diagram Or Using A "Repeat" Statement (ELBT291)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/5cfd95f3-a4bf-4550-9a2c-6c0f9fa915ba)

Designing The Instructions For A Robot Vacuum Cleaner To Clean A Room (ELBT546)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/524f130-9a97-40a7-8b05b88e855f7e)

Using Different Design Tools To Record Ways In Which Digital Solutions Will Be Developed, For Example Creating Storyboards Or Flowcharts To Record Relationships Or Instructions About Content Or Processes (ELBT115)
Planning And Implementing A Solution Using A Visual Programming Language, For Example Designing And Creating A Simple Computer Game Involving Decisions And Receptions, Suitable For Younger Children, That Requires User Input To Make Selections, Taking Into Account User Responses (ELBT43A)

Designing And Creating A Solution That Is Interactive, Using A Visual Programming Language, For Example Designing A User Interface For People With Disability, Taking Into Account Visability And Size Of Icons, Or Creating A Quiz That Provides Feedback On Response And Allows The User To Try Again (ELBT414)

Creating A Quiz Where Questions Are Repeated Until The Correct Response Is Given, For Example Questions And Feedback On Responses In A Few Slides In A Presentation Slide Show (ELBT255)

Programming A Robot To Operate Independently, For Example To Find Its Way Out Of A Maze (ELBT81)

Experimenting With Different Ways Of Instruction To Make Choices And Repeat Instructions, For Example Using 'If' Statements To Allow For Multiple Outcomes Depending On How The Task Is Completed (ELBT239)

Using Sustainability Criteria To Explain How Well A Developed Solution Meets Its Requirements, For Example Personal Data Are Secured (Social) And The Solution Can Only Be Viewed On Screen To Avoid Printing (Environmental) (ELBT433)

Exploring The Ethics And Impact Of Management Practices On The Use Of Communication Networks, For Example Internet Censorship From A Local, National And Global Perspective And The Impact On Freedom Of Access And Expression (ELBT425)

Comparing Past And Present Information Systems In Terms Of Economic, Environmental And Social Sustainability, Including Those Of Aboriginal And Torres Strait Islander Peoples (ELBT257)

Considering Pros To Save Energy And Other Resources When Using Information Systems, For Example Switching Off When Not In Use, Ensuring Electronic Devices Are In Energy Saving Mode (ELBT79)

Applying Practices That Support The Organisation Of Collaborative Problem Solving, For Example Finding Online Meeting Times That Suit All Members, And Agreeing On Ways Of Protecting Files And Sharing Information Digitally With Members (ELBT46)

Applying Safe Practices While Participating In Online Environments, For Example Checking The Default Privacy Settings To Ensure Maximum Protection Of Personal Details, Being Aware Of Online Filtering Techniques And Policies Used At School And At Home (ELBT315)

Comparing Ways Of Managing The Use Of Social Media To Maintain Privacy Needs, For Example Activating Privacy Settings To Avoid Divulging Personal Data Such As Photographs, Addresses And Names (ELBT424)

Developing A Set Of ‘Rules’ About Appropriate Conduct, Language And Content When Communicating Online, And Using These Rules As A Basis For Resolving Ethical Dilemmas (ELBT218)

Using Digital Technologies To Create Web Based Information Taking Into Consideration Referencing Conventions, For Example Creating A Blog, Website Or Online Learning Space For Sharing Ideas (ELBT401)

Using A Range Of Communication Tools To Share Ideas And Information, For Example Participating In Collaborative Online Environments (ELBT198)

Acquire, store and validate different types of data and use a range of common available software to interpret and visualise data in context to create information (ACTDP016)

Define problems in terms of data and functional requirements, and identify features similar to previously solved problems (ACTDP017)

Design a user interface for a digital system, generating and considering alternative design options (ACTDP018)

Design, modify and follow simple algorithms represented diagrammatically and in English involving sequences of steps, branching, and iteration (repetition) (ACTDP019)

Implement digital solutions as simple visual programs involving branching, iteration (repetition), and user input (ACTDP020)

Explain how developed solutions and existing information systems are sustainable and meet local community needs, considering opportunities and consequences for future applications (ACTDP021)

Manage the creation and communication of ideas and information including online collaborative projects, applying agreed ethical, social and technical protocols (ACTDP022)

Digital Technologies Knowledge and Understanding

Digital Technologies Processes and Production Skills
Explaining That Networks Have Components That Control The Movement Of Data, For Example Routers, Hubs, Switches And Bridges Manage Data Traffic And That The Characteristics Of These Components Impact On The Operation (Speed And Security) Of Networks (ELBT204)


Explaining How Cellular Radio Towers (Transceivers) And Mobile Phones Work Together To Create Mobile Networks (ELBT38)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/a784c50c-3209-4c2d-af3f-1e9d9f1b0c76)

Comparing The Reliability And Speed Of Transmitting Data Through Wireless, Wired And Mobile Networks (ELBT393)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/1a5a6be5-eb4c-4ac0-8bed-397f9be94d4)

Recognising That There Are Different Communications Protocols For Transmitting Data In Networks, For Example HyperText Transfer Protocol (http) Is Used For Transferring Web Page Files In A Browser, File Transfer Protocol (ftp) Is Used For Sending And Receiving Files Over A Network And Transmission Control Protocol/Internet Protocol (tcp/ip) Is Used For Controlling File Transfers Over The Internet (ELBT335)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/ac8194f7-2e03-484a-ac83-8e9a9d256dd)

Explaining That Characters In Text Correspond To Numbers Defined By The Character Set, For Example 'A' Corresponds To 65 In The Ascii And Unicode Character Sets (ELBT206)


Recognising That Unicode Attempts To Represent The Written Symbols Of Every Language; And Using Unicode Charts To Look Up Characters From Asian Writing Systems (ELBT463)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/0cf6d7b1-b06b-49eb-a72d-58e27f89d16)

Investigating The Different Representation Of Bitmap And Vector Graphics And Its Consequences, For Example Pixelation In Magnified Bitmap And Vector Images (ELBT315)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/4fe4de47-3fd4-4abc-bb0b-c0533b59439)

Investigating How Colours Are Represented In Images And Videos, For Example Manipulating Red, Green And Blue (Rbg) Colours In An Image Editor (ELBT463)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/9a7e714e-59f8-4a36-bca7-0f2e2fb953a3)

Converting Between Decimal And 8 Bit (1Byte) Signed Binary, Covering Whole Numbers Typically Used For Characters And Flags, For Example The Decimal Is 10000001 In 8 Bit Binary (ELBT337)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/65a8783-945f-4788-acec-429d655d54e)

Investigating Ways Media Elements Are Presented, For Example The Difference Between Embedded And Linked Media Elements (ELBT206)


Investigating how data are transmitted and secured in wired, wireless and mobile networks, and how the specifications of hardware components impact on network activities (ACTDIK205)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/b876f8d5-7251-43ad-949f-65a7ad9f7c0)

Investigating how digital systems represent text, image and audio data in binary (ACTDIK024)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/320c791-84bc-4dfb-8b9b-e4496a3c757)

Designing A Search Engine Query To Find Specific Information On The Web And Checking Its Accuracy Against Information Contained In Other Sources, For Example Entering Instructions Such As <i>intitle:</i> And <i>inurl:</i> Prefixes To Find Information Within A General Directory, And Comparing The Results With Information Found In A Wiki (ELBT466)


Acquiring Data From A Range Of Sources, For Example People, Websites, Books, Mobiles, Radiofrequency Identification (Rfid) And Data Repositories Such As The Australian Bureau Of Statistics Datasets, And Compiling These Data Into A Digital Format (ELBT373)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/0f9cc97-bc49-4ace-92bd-45505d0fef05)

Checking Authenticity Of Data, For Example Ensuring The Source Or Author Is A Reliable Individual Or Organisation (ELBT476)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/b32b9a95-90d2-493c-990d-044b7b49f4c)

Using Features And Functions Of Software To Summarise Data To Create Information, For Example Calculating A Simple Budget Of Income And Payments And Creating A Summary Table For Analysis (ELBT339)


Visualising Data To Create Information, For Example Identify Trends And Outlier Data From Spreadsheets Using Plots, Or Displaying Geocoded Data On A Map (ELBT85)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/31c188e6-16e0-4f62-b81f-71f056f8b9)

Applying A Set Of Conditions To A Spreadsheet To Organise And Filter Data, For Example Using Conditional Formatting To Highlight The State Of Particular Cells, And Filtering And Sorting Categorical Data Using Column Filters (ELBT241)


Querying An Existing Database To Extract Data For Analysis, For Example Devising Multiple Selection Criteria Or Using Simple Structured Query Language (Sql) Select Statements To Select Records And Retrieve Specified Fields (ELBT386)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/7f7b7acff1-4c2e-b2c3-56b6a390aa3)

Describing The Attributes Of Complex Objects, For Example Defining The Records, Fields, Formats And Relationships Of A Simple Dataset (ELBT193)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/653078b6-8df7-4c77-a414-9c794d56f5d)

Modelling The Attributes Of Real World Objects For A Computer Game (ELBT87)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/e97503d5-cd7a-494b-8ca1-d741bcb8a4c)

Determining The Factors That Influence Proposed Solution Ideas, For Example User Age Affects The Language Used For Instructions, Dexterity Affects The Size Of Buttons And Links, Hearing Or Vision Loss Influence Captioned Or Audio Described Multimedia As Alternative Ways That Common Information Is Presented On A Website (ELBT458)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/89a505e-688b-4775-95c0-13528522cc0d)

Investigating Types Of Environmental Constraints Of Solutions, For Example Finding Energy Saving Devices And Equipment That Can Be Re Used (ELBT380)


Identifying That Problems Can Be Decomposed Into Sub Elements, For Example Finding A Decision Tree To Represent The Flow Of Data Through A System And Identifying The Elements Of Game Design Such As Characters, Movements, Collisions And Scoring (ELBT262)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/4d0eefd5e-38bf-42df-88ce-7def0f0c3b)

Starting From A Simplified System, Gradually Increase Complexity Until A Model Of A Real World System Is Developed, And Record The Difficulties Associated With Each Stage Of Implementation (ELBT356)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/3c3e9f81-dc3b-5407-a55b-b9d35a9359eb)

Designing The User Interface Of A Solution Using A Range Of Design Tools, For Example Using A Storyboard To Explain The Stages Of A Game, And Wire Frames And Mock Ups To Describe The Appearance Of A Solution (ELBT995)


Identifying Features That Make An Effective Game, Such As Storyline, Goal, Reward, Gameplay And Environment (ELBT115)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/2bdcc5f5-63a1-49e4-9c2c-c8b50c42dd)

Identifying Similar Digital Systems And Their User Interfaces, Assessing Whether User Interface Elements Can Be Re Used (ELBT380)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/2bdcc5f5-63a1-49e4-9c2c-c8b50c42dd)
Acquire data from a range of sources and evaluate authenticity, accuracy and timeliness (ACTDIP025)

Presenting And Comparing Alternative Designs To A Solution For A Problem, For Example Presenting Alternative Design Mock Ups To The Class (ELBT290)

Applying The Principles And Elements Of Design To A Series Of Solutions To Evaluate The Success Of Each Solution To Hold The Viewer's Attention, For Example Identifying Which Colour Combinations Or Framing Of Visual Elements Keep Difficulties Engaged On Screen Activity (ELBT332)

Investigating And Designing Some Common Algorithms, Such As To Search, Sequence, Sort, Merge, Control Data Structures (ELBT56)

Checking The Accuracy Of An Algorithm Before It Is Implemented, For Example Desk Checking It with Test Data To See If The Instructions Produce The Expected Results (ELBT109)

Using Diagrams To Describe Key Decisions, For Example Creating Flowcharts Using Digital Systems To Describe A Set Of Computational Instructions (ELBT347)

Understanding Structured English Express Algorithmic Instructions, For Example Using Conventional Statements Such as 'while' And 'endwhile' In A 'while Loop' When Describing An Interactive Instruction (ELBT160)

Developing And Modifying Digital Solutions By Implementing Instructions Contained In Algorithms Through Programs (ELBT100)

Developing A Digital Game That Manipulates Models Of Real World Objects (ELBT98)

Programming A Robot To Recognise Particular Objects And To Treat Them Differently, For Example Choose Objects Based On Colour (ELBT382)

Creating Digital Solutions That Provide User Navigation And Prompts With Controlled Replacements, For Example An Information Kiosk That Has Layers Of Buttons And Prompts The User Three Times Before Returning To The Beginning (ELBT102)

Comparing Developed Solutions With Existing Solutions That Solve Similar Problems, For Example Identifying Differences In The User Interface Of Two Adventure Games And Explaining How These Differences Affect The Usability Or Appeal Of The Game (ELBT358)

Judging The Quality Of A Developed Solution Based On Specific Criteria Such As Meeting An Economic Need Or Contributing To Social Sustainability (ELBT120)

Investigating What Features Of Touch Input Rather Than Keyboard Or Mouse Input Contribute To Their Success In Meeting A Wide Range Of Needs, For Example Mimicking A Common Movement Such As Expanding Or Contracting A Hand To Change The Size Of An Object On Screen, Suits Users With A Range Of Dexterity (ELBT318)

Evaluating The Success Of Information Systems In Meeting An Economic, Environmental Or Social Objective, For Example Interviewing A Local Business Owner To Find Out How Effectively Their Information System Supports A Business Objective Such As Increasing Market Share (ELBT405)

Comparing Cloud Based Information Systems To Client Based Information Systems (ELBT264)

Establishing A Set Of 'Rules' About Acceptable And Unacceptable Behaviour When Collaborating Online, For Example Only Applying Tags To Images Of Other People With Their Permission Or Considering Social Protocols Of Aboriginal And Torres Strait Islander People (ELBT394)

Creating Web Based Information To Meet Specific Needs, For Example Creating A Website That Involves Modifying A Web Publishing Template (ELBT455)

Creating A Web Based Project That Involves Modifying An Existing Website Template Or Writing HTML And Cascading Style Sheets (CSS), For Example Using Web Authoring Software And CSS To Create A Website That Allows Customers To View Product Information (ELBT358)

Creating Digital Solutions That Provide User Navigation And Prompts With Controlled Repetitions, For Example An Information Kiosk That Has Layers Of Buttons And Prompts The User Three Times Before Returning To The Beginning (ELBT102)

Discussions About The Use Of Information Systems In A Range Of Settings, For Example Using Mobile Phones For Learning And Accessing Social Media Websites At School (ELBT311)

Creating And Modifying App Based Solutions To The Solution For A Problem, For Example Customise Your Phone To Make It Easier To Use Hand To Change The Size Of An Object On Screen, Suits Users With A Range Of Dexterity (ELBT318)

Checking The Accuracy Of An Algorithm Before It Is Implemented, For Example Desk Checking It with Test Data To See If The Instructions Produce The Expected Results (ELBT109)

Using Diagrams To Describe Key Decisions, For Example Creating Flowcharts Using Digital Systems To Describe A Set Of Computational Instructions (ELBT347)

Understanding Structured English Express Algorithmic Instructions, For Example Using Conventional Statements Such as 'while' And 'endwhile' In A 'while Loop' When Describing An Interactive Instruction (ELBT160)
Automate arithmetic calculations using built-in functions such as trigonometry, compound interest (ELBT369).

Automate calculations, for example using absolute cell referencing to automatically extend formulas, and aggregation functions in databases (ELBT325).

Summarise data using advanced filtering and grouping techniques, for example pivot tables in spreadsheets and link.

Support abstract reasoning, for example representing data using histograms, network diagrams and maps (ELBT166).

Use visualisation software tools to identify patterns and relationships between sets of data and information, and example combining mapping data from multiple electronic data sets to build a composite representation (ELBT478).

Extract specific data from an external source and storing it in a format that is more useful for analysis, for example human responses (ELBT162).

Develop strategies to ensure the privacy and security of survey data, for example using numbers rather than and online webcam systems (ELBT220).

Identify strengths and weaknesses of collecting data using different methods, for example online surveys, face interviews, phone interviews, observation, blog entries in response to a posting, phone logs, browser history link.

Use checkboxes for closed questions to acquire quantitative data (ELBT337).

Develop strategies and techniques for capturing accurate and usable qualitative and quantitative data of different types, for example using text entry for open-ended questions to acquire qualitative data; using radio buttons or link.

Use visualisation software tools to identify patterns and relationships between sets of data and information, and support abstract reasoning, for example representing data using histograms, network diagrams and maps (ELBT166).

Summarising data using advanced filtering and grouping techniques, for example pivot tables in spreadsheets and aggregation functions in databases (ELBT325).

Automate calculations, for example using absolute cell referencing to automatically extend formulas, and automating arithmetic calculations using built-in functions such as trigonometry, compound interest (ELBT369).
Investigating Different Types Of Functional Requirements For Solutions, For Example Increasing The Speed Of Processing. Calculating New Results, Improving The Quality Of Reports (ELBT560)

Investigating Different Types Of Non Functional Requirements For Solutions, For Example Considering How The Requirements Of Reliability, User Friendliness, Portability And Robustness Could Affect The Way People Use Solutions (ELBT77)

Identifying The Range Of Stakeholders Who Are Associated With Solutions But Are Not Direct Users And Using Techniques Such As Interviewing And Reinterviewing To Clarify Needs (ELBT83)

Using Software Such As Graphic Organisers To Determine A Fundamental Cause Of A Problem Or To Represent Related Elements Of A Problem That Need To Be Jointly Addressed In The Digital Solution (ELBT282)

Testing A Range Of Test And Graphical User Interface Designs With Clients Who Have Different Needs On The Basis Of Time Taken To Complete The Task And The Number Of Errors Made (ELBT25)

Developing Algorithms That Can Implement Tacit Knowledge To Model Structured Data (ELBT47)

Developing Test Cases That Correspond To The Requirements Of The Specifications, For Example Validating Program Processing, Calculating New Results, Improving The Quality Of Reports (ELBT360)

Investigating Different Types Of Non Functional Requirements For Solutions, For Example Investigating The Scope Or Boundaries Of The Solution (ELBT418)

Designing The User Interface Of A Solution Using Story Boards And Mock Ups, For Example Mocking Up The Product Design Of An App For People With Disability (ELBT52)

Identifying Similar Digital Systems And Existing User Interfaces, Assessing Whether Their Elements Can Be Reused (ELBT202)

Recognising That Different Algorithms Can Solve A Problem With Different Trade Offs (ELBT63)

Tracing Algorithms To Predict Results And Program State For A Given Input, For Example Desk Checking Or Using An Interactive Debugging Tool (ELBT179)

Using Tracing Techniques To Test Algorithms, For Example Desk Checking An Algorithm For A Given Input By Stepping Through The Algorithm While Keeping Track Of Contents Of The Variables (ELBT796)

Developing Coding Separately Modules That Perform Discrete Functions But Collectively Meet The Needs Of The Solution (ELBT230)

Defining Classes That Represent The Attributes And Behaviour Of Objects In The Real World Or In A Game (ELBT396)

Considering Algorithms And Selecting The Most Appropriate Based On The Type Of Problem, For Example Choosing Appropriate Algorithms For Particular Problems (ELBT279)

Selecting Different Types Of Data Structures Such As An Array, Record And Object To Model Structured Data (ELBT474)

Investigating Actions, Devices And Events That Are Potential Risks To Information Systems, For Example Losing Portable Storage Devices Containing Important Files, Deliberately Infecting Systems Through Malware, And Power Surges (ELBT567)

Examining The Impact And Opportunities Created Through The Practice Of Planned Obsolescence, For Example Discussing The Benefits And Risks To Users, The Creation And The Enviloment Of Information Systems Having A Defined Life Span, Taking Into Account Costs, Research And Resource Extraction (ELBT246)

Examining The Ict Policy For Schooling And Evaluating The Impact On Education (ELBT442)

Reviewing The Terms Of Use Policies On Social Media Networks And Predicting Ways In Which This Can Support Advocacy Of Change And Protection Of Individuals And Societies (ELBT449)
Suit Available Cooking Facilities Such As Cooking In The Bush Compared To Cooking In A Kitchen (ELBT127)

Creating An Interactive Web Based Project That Provides Enterprising Opportunities And Complies With Accessibility Requirements. For Example Using Fragments Of A Web Language To Create Dynamic Content That Supports Interactivity (ELBT110)

Creating Online Interactive Solutions For Working With Others By Combining Or Modifying Online Software Tools To Support Project Work (ELBT191)

Managing And Modifying The Development Of A Solution, For Example Using Software To Record And Monitor Project Tasks, Responsibilities And Timeframes And To Organise Continuous Opportunities To Review Progress With Collaborative Partners And To Conduct Regular Unit Testing (ELBT217)

Developing An Evolutionary Prototype Iteratively And Incrementally, For Example Regularly Revising Features Of An Application In Response To User Feedback And Development Decisions (ELBT187)

Indicating Indicators Of Economic Success, For Example The Capacity To Scale Up An Innovative Solution To Meet The Demands Of A Mass Market And The Savings Accrued Through Sustainable Practices (ELBT251)

Investigating Major Causes Of Threats To Data, For Example Human Actions Such As Losing A Storage Device, Disclosing Passwords, Theft And Fraud (ELBT440)

Develop techniques for acquiring, storing and validating quantitative and qualitative data from a range of sources, considering privacy and security requirements (ACTDIP036)

Design the user experience of a digital system, evaluating alternative designs against criteria including functionality, accessibility, usability, and aesthetics (ACTDIP039)

Design algorithms represented diagrammatically and in structured English and validate algorithms and programs through tracing and test cases (ACTDIP040)

Implement modular programs, applying selected algorithms and data structures including using an object-oriented programming language (ACTDIP041)

Design algorithms represented diagrammatically and in structured English and validate algorithms and programs through tracing and test cases (ACTDIP040)

Create interactive solutions for sharing ideas and information online, taking into account social contexts and legal requirements (ACTDIP043)

Plan and manage projects using an iterative and collaborative approach, identifying risks and considering safety and sustainability (ACTDIP044)

Digital Technologies Knowledge and Understanding

Digital Technologies Processes and Production Skills

Years 7 and 8 Achievement Standard

Years 9 and 10 Achievement Standard

Exploring How Local Products, Services And Environments Are Designed By People For A Purpose And Meet Social Needs, For Example The Range Of Shelters Provided For The Public In A Local Community; Graphical Displays To Market School And Community Events (ELBT770)

Asking Questions About Natural And Managed Environments And Impacts On Them When Selecting Materials, Tools And Equipment When Designing And Making Products, For Example Harvesting Products From The School Garden And Using Recycled Clothing (ELBT499)

Making Design Decisions Based On Personal And Family Needs, For Example Downloading And Comparing Recipes To Suit Available Cooking Facilities Such As Cooking In The Bush Compared To Cooking In A Kitchen (ELBT115)

Investigating Legal Responsibilities Of Organisations Regarding The Storage, Communication And Disposal Of Personal And Organisational Data, For Example The Australian Privacy Principles As They Apply To Intellectual Property (ELBT127)

Applying Techniques To Make Ethical Decisions When Faced With Dilemmas About Security And Ownership Of Data, For Example Selecting An Action That Results In The Greatest Benefit For The Most Number Of People; Avoiding The Use Of Photos Of Deceased Persons From Aboriginal And Torres Strait Islander Communities (ELBT422)

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Digital Technologies Processes and Production Skills

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Develop techniques for acquiring, storing and validating quantitative and qualitative data from a range of sources, considering privacy and security requirements (ACTDIP036)

Design the user experience of a digital system, evaluating alternative designs against criteria including functionality, accessibility, usability, and aesthetics (ACTDIP039)

Design algorithms represented diagrammatically and in structured English and validate algorithms and programs through tracing and test cases (ACTDIP040)

Implement modular programs, applying selected algorithms and data structures including using an object-oriented programming language (ACTDIP041)

Critically evaluate how well developed solutions and existing information systems and policies take account of future risks and sustainability and provide opportunities for innovation and enterprise (ACTDIP042)

Create interactive solutions for sharing ideas and information online, taking into account social contexts and legal responsibilities (ACTDIP043)

Plan and manage projects using an iterative and collaborative approach, identifying risks and considering safety and sustainability (ACTDIP044)

Digital Technologies Knowledge and Understanding

Digital Technologies Processes and Production Skills

Years 9 and 10 Achievement Standard

Foundation Year 2

Years 3 and 4

Years 5 and 6

Years 7 and 8

Years 9 and 10

Exploring How Local Products, Services And Environments Are Designed By People For A Purpose And Meet Social Needs, For Example The Range Of Shelters Provided For The Public In A Local Community; Graphical Displays To Market School And Community Events (ELBT770)

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Making Design Decisions Based On Personal And Family Needs, For Example Downloading And Comparing Recipes To Suit Available Cooking Facilities Such As Cooking In The Bush Compared To Cooking In A Kitchen (ELBT115)
Exploring And Critiquing Products, Services And Environments For Their Impact On Sustainability, For Example The Environmental Risks And Benefits Of A System For Organically Or Hydroponically Growing A Vegetable Crop From Seed To Seedling To Harvest (ELBT217)

link (http://rf.d姊auracurriculum.edu.au/elements/2014/09/2f54486b-f1b5-4236-9331-7f33b34786f8)

Exploring How The Principles Of Push And Pull Are Used In The Design Of Toys, For Example In A Spinning Toy Such As An Aboriginal Mamamundur (ELBT334)

link (http://rf.d姊auracurriculum.edu.au/elements/2014/09/0c3a8292-15-4ec3-b86d-7b18b78c8f4c)

Identifying, And Playing And Experimenting With, Components Such As Wheels, Balls, Slides, Springs And Available Local Materials, Tools And Equipment To Solve Problems Requiring Movement (ELBT233)

link (http://rf.d姊auracurriculum.edu.au/elements/2014/09/979a53a6-50dc-4c95-9d7f-b52oe8290f6)

Selecting Materials To Demonstrate How Material Properties Are Appropriate For Particular Designed Solutions, For Example Materials That Enable Sliding Or Floating (ELBT412)

link (http://rf.d姊auracurriculum.edu.au/elements/2014/09/b4f6b8b8-1216-4440-a9f6-2b6ae0c345f6)

Exploring A System Such As A Marionette Or Indonesian Kuchuppet Shadow Puppet To See That By Combining Materials With Forces Movement Can Be Created (ELBT242)

link (http://rf.d姊auracurriculum.edu.au/elements/2014/09/9a9442b2-2783-453c-9700-84c785ee06ae)

Combining Materials And Using Forces In Design, For Example Designing The Door On A Cage Or A Simple Conveyor Belt To Move Materials Short Distances (ELBT468)

link (http://rf.d姊auracurriculum.edu.au/elements/2014/09/6a27c9df-65cd-4f4b-8d6d-cd3e85b7699a)

Exploring How To Manipulate Materials Using A Range Of Tools, Equipment And Techniques To Create Movement, For Example When Constructing A Toy Boat That Floats And Moves (ELBT327)

link (http://rf.d姊auracurriculum.edu.au/elements/2014/09/ff2359b2-ae20-47e6-8d5f-5b2e090d032)

Exploring Which Plants And Animals Can Provide Food Or Materials For Clothing And Shelter And What Basic Needs Those Plants And Animals Have (ELBT329)

link (http://rf.d姊auracurriculum.edu.au/elements/2014/09/50a98a9-9e6f-4017-bc9e-5ab4f0b346f)

Identifying Products That Can Be Designed And Produced From Plants And Animals, For Example Food Products, Paper And Wood Products, Fabrics And Yarns, And Fertilisers (ELBT481)

link (http://rf.d姊auracurriculum.edu.au/elements/2014/09/90e90a87-bf5f-4d16-a3c3-00778c4a693)

Considering The Suitability Of A Range Of Tools When Cultivating Gardens, Mulching And Building Garden Structures And Preparing And Cooking Food From Recipes (ELBT188)

link (http://rf.d姊auracurriculum.edu.au/elements/2014/09/1f0f0bba-271f-43c1-97c7-a16cd434e99)

Identifying And Categorising A Wide Range Of Foods, Including Aboriginal Bush Foods, Into Food Groups And Describing Tools And Equipment Needed To Prepare These For Healthy Eating (ELBT209)

link (http://rf.d姊auracurriculum.edu.au/elements/2014/09/20dd340b-6f42-49b0-8a3-999764b628b)

Exploring How People From Different Cultures Include Those Of Asia Design And Produce Different Cuisines Based On The Plants And Animals In Their Region And Available Local Materials, Tools And Equipment (ELBT312)

link (http://rf.d姊auracurriculum.edu.au/elements/2014/09/71eeb811-8ca-43a3-9027-60909f5a35e)

Exploring The Tools, Equipment And Techniques Used To Prepare Food Safely And Hygienically For Healthy Eating (ELBT344)


Exploring Designed Solutions To Meet Individual, Family And Community Needs With A Focus On Materials, For Example Fabrics Used For Sports Clothing, Soft Fall For Play Spaces (ELBT298)

link (http://rf.d姊auracurriculum.edu.au/elements/2014/09/5a10a33c-6f9d-4950-a1f4-6d4f0ce357c1)

Developing New Meanings For Objects And Action During Play, For Example Exploring How Household Packaging Can Be Used To Represent Other Objects (ELBT150)

link (http://rf.d姊auracurriculum.edu.au/elements/2014/09/fcde8459-3f3b-4bfe-bb5f-b55231000e9b)

Exploring Systems Used In The Classroom Or Community For Creatively Dealing With Problems And Needs, For Example Storage Systems For Equipment, Traffic System Flow For Drop And Go Zones, The Use Of Heists And Ramps To Facilitate Access (ELBT775)

link (http://rf.d姊auracurriculum.edu.au/elements/2014/09/50a98a9-9e6f-4017-bc9e-5ab4f0b346f)

Exploring Facilities In Local Environments For Accessibility And Environmental Impact, For Example Location Of Bike Tracks And Sporting Fields Using Digital Maps To View Local Area (ELBT260)

link (http://rf.d姊auracurriculum.edu.au/elements/2014/09/b03a8292-9f5-4ec3-b866-7f1b878c8f14c)

Exploring Materials, Components, Tools And Equipment Through Play To Discover Potential Uses When Making Products Or Modelling Services And Environments, For Example When Designing And Making Clothes, Toys And Shelters (ELBT107)


Experimenting With Techniques To Combine Or Alter Materials To Satisfy A Function (ELBT124)

link (http://rf.d姊auracurriculum.edu.au/elements/2014/09/1fbf8f8-5c06-465f-95cc-c2cf9eae8b3c)

Identify how people design and produce familiar products, services and environments and consider sustainability to meet personal and local community needs (ACTDEK004)

link (http://rf.d姊auracurriculum.edu.au/elements/2014/09/a828a903-bb9-4a92-b43b7-c3656a25a06)

Explore how technologies use forces to create movement in products (ACTDEK002)


Explore how plants and animals are grown for food, clothing and shelter and how food is selected and prepared for healthy eating (ACTDEK003)

link (http://rf.d姊auracurriculum.edu.au/elements/2014/09/d5f6a4a-b471-43f6-bb64-25555297fe9b)

Explore the characteristics and properties of materials and components that are used to produce designed solutions (ACTDEK004)


Identifying, Gathering And Playing With Materials, Components, Tools And Equipment To Generate Personal Design Ideas, For Example Designing A Greeting Card For A Friend (ELBT57)


Exploring Opportunities Around The School For Designing Solutions, For Example How School Play Areas Could Be Improved, How The School Removes Classroom Waste And How The School Recycles To Reduce, Recycle And Re Use Materials; Reviewing The School Canteen Menu To Identify Healthy Food Options And Suggesting Changes To Promote Future Good Health (ELBT333)

link (http://rf.d姊auracurriculum.edu.au/elements/2014/09/3bc8db-b8e3-4102-b89b-5a3b3d535a7)

Discussing Possible Designed Solutions Based On Experience And Some Research, For Example Asking Adults For Advice (ELBT248)


Considering The Importance Of Sustainability In Designed Solutions, For Example Exploring Which The Durability Of Materials For A Selected Solution (ELBT215)

link (http://rf.d姊auracurriculum.edu.au/elements/2014/09/d0aa297b-c7e9-4c49-a9f6-901ab95141f)

Exploring Which Tools, Equipment And Techniques To Use With Selected Materials (ELBT474)

link (http://rf.d姊auracurriculum.edu.au/elements/2014/09/840979fa-f77f-4943-bde5-975a000d0c93)

Comparing And Contrasting Features Of Existing Products To Provide New Ideas, For Example Exploring Toys With Several Movable Parts With The View To Designing And Making A Simple Puppet With One Movable Part (ELBT89)
Identifying And Exploring Features And Modifications Of An Engineered Product Or System, For Example A Structure That Floats: A Bridge To Carry A Load (ELBT210)

(http://rdf.australiancurriculum.edu.au/elements/2014/09/bca6d0a0-32b2-43a7-8b14-c839a1c1843b)

Constructing Investigations To Understand The Characteristics And Properties Of Materials That May Affect The Behaviour And Performance Of A Product Or System. For Example Woodmark Design (ELBT119)

(http://rdf.australiancurriculum.edu.au/elements/2014/09/0f9b80af-3b44-47f2-a32b-a4e797b8b995)

Deconstructing A Product Or System To Identify How Motion And Forces Affect Behaviour, For Example In A Puppet Such As A Japanese Bunraku Puppet Or A Model Windmill With Moving Sails (ELBT483)

(http://rdf.australiancurriculum.edu.au/elements/2014/09/2bbf4d4b-3f8d-424f-a8d7-93bad8dd0630)

Identifying And Exploring Properties And Construction Relationships Of An Engineered Product Or System, For Example A Structure That Floats: A Bridge To Carry A Load (ELBT210)

(http://rdf.australiancurriculum.edu.au/elements/2014/09/a0a96efe-b93a-46df-adab-f98b1e6c65a)

Experimenting With Available Local Materials, Tools And Equipment To Solve Problems Requiring Forces Including Identifying Inputs (What Goes In To The System), Processes (What Happens Within The System) And Outputs (What Comes Out Of The System), For Example Designing And Testing A Container Or Parachute That Will Keep An Egg Intact When Dropped From A Height (ELBT190)

(http://rdf.australiancurriculum.edu.au/elements/2014/09/69f6125f-70f2-45f9-8bca-a5c43d0ceee2)

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 (ELBT449)

(http://rdf.australiancurriculum.edu.au/elements/2014/09/a029e8fa-ef3f-475f-b84b-0c1f72a7a20d2e)

Identifying The Areas In Australia And Asia Where Major Food Or Fibre Plants And Animals Are Grown Or Breed, 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 (ELBT167)


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 (ELBT30)


Recognising The Benefits Food Technologies Provide For Health And Food Safety And Ensuring That A Wide Variety Of Food Is Available And Can Be Prepared For Healthy Eating (ELBT134)

(http://rdf.australiancurriculum.edu.au/elements/2014/09/72be7007-2b71-4576-a9f6-4cf89ade9318)

Investigating The Labels On Food Products To Determine How The Information Provided Contributes To Healthy Eating, For Example Ingredients And Nutrition Panels (ELBT245)

(http://rdf.australiancurriculum.edu.au/elements/2014/09/147c1a76-6212-4cf4-ad5f-808bdf977b6f)

Conducting Experiments And Tests To Understand The Properties Of Materials. For Example Strength, Durability, Warmth, Elasticity (ELBT484)


Investigating The Mass Production Of Products To Ensure Standardisation, For Example Students Setting Up A Production Line To Produce A Product For A School Fete (ELBT391)


Investigating The Suitability Of Technologies Materials, Systems, Components, Tools And Equipment When Designing And Making A Product, Service Or Environment, For Example A Toy For A Young Child, A Composting System For Household Waste Management, Raised Garden Beds For Improved Access, Weaving Nets, Bags Or Basket (ELBT436)

(http://rdf.australiancurriculum.edu.au/elements/2014/09/7f8f9dcd-6da9-4d5f-93e3-207f6b2c1a875)

Comparing How Different Components Interrelate And Complement Each Other In A Finished Designed Solution, For Example Investigating And Playing WithJoining Processes For A Variety Of Materials In The Production Of Common Products (ELBT404)

(http://rdf.australiancurriculum.edu.au/elements/2014/09/620b5b0b-c041-4af2-a2c3-33f1b8b8b5f5)

Investigating Local Constructed Environments To Compare How Buildings Were Constructed In The Past And In The Present And Noting Innovations (ELBT294)


Analysing Products, Services And Constructed Environments From A Range Of Technologies Contexts With Consideration Of Possible Innovative Solutions And Impacts On The Local Community And The Sustainability Of Its Environment (ELBT140)


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)

(http://rdf.australiancurriculum.edu.au/elements/2014/09/8f89decc-1a06-429c-93eb-c5f9b20ceee10)

Investigate how forces and the properties of materials affect the behaviour of a product or system (ACTDEK011)

(http://rdf.australiancurriculum.edu.au/elements/2014/09/a4a322b7-4047-4ce0-99c3-ede7b8b68f31)

Investigate food and fibre production and food technologies used in modern and traditional societies (ACTDEK012)

(http://rdf.australiancurriculum.edu.au/elements/2014/09/dd84de90-9ba4-43c2-a10a-7999a07a9b71)

Investigate the suitability of materials, systems, components, tools and equipment for a range of purposes (ACTDEK13)

(http://rdf.australiancurriculum.edu.au/elements/2014/09/6e6a565b-e81b-44aa-9dd4-ad12fb5f0a2c)

Exploring The Different Uses Of Materials In A Range Of Products, Including Those From Aboriginal And Torres Strait Islander Communities And Countries Of Asia (ELBT219)

(http://rdf.australiancurriculum.edu.au/elements/2014/09/4f16c996-58fd-4c2a-a4f1-bc5f46bbd902)

Critiquing And Selecting Appropriate Joining Techniques For Materials To Produce Working Models (ELBT423)

(http://rdf.australiancurriculum.edu.au/elements/2014/09/53b829b2-3b95-4ec7-96b4-27c35c966888)

Exploring And Testing A Range Of Materials Under Different Conditions For Suitability Including Sustainability Considerations And Identifying Appropriate Tools, Equipment And Techniques (ELBT4)

(http://rdf.australiancurriculum.edu.au/elements/2014/09/3145b7f7-7ee4-475f-9f17-6d7b735b3bc4)

Examining The Structure And Production Of Everyday Products, Services And Environments To Enhance Their Own Design Ideas (ELBT353)


Exploring The Properties Of Materials To Determine Suitability, For Example The Absorbency Of Different Fabrics Or The Strength Of Different Resistant Materials (ELBT243)

(http://rdf.australiancurriculum.edu.au/elements/2014/09/a06e9aa4-10d6-4623-91d5-8f9d3e4aafccc3)

Exploring Ways Of Joining, Connecting And Assembling Components That Ensure Success (ELBT36)

(http://rdf.australiancurriculum.edu.au/elements/2014/09/d093df89-3b8a-40ad-8c2b-49f1adeacbd0)

Generating A Range Of Design Ideas For Intended Products, Services, Environments (ELBT714)

(http://rdf.australiancurriculum.edu.au/elements/2014/09/b6614cd0-bc02-473b-87d0-aace005f7bfc)

Identifying The Properties Of Materials Needed For The Designed Solution (ELBT10)

(http://rdf.australiancurriculum.edu.au/elements/2014/09/e0339d07-456a-4447-a89f-fb8aeaf15cf3)

Visualising And Exploring Innovative Design Ideas By Producing Thumbnail Drawings, Models And Labelled Drawings To Explain Features And Modifications (ELBT211)

(http://rdf.australiancurriculum.edu.au/elements/2014/09/a12a6d0e-ad92-a43c-b48e-91b947b7b5530)
Environmental Impact; Restoring A Natural Environment And Retaining Access For The Public (ELBT278)

Identifying The Impact Of The Designed Features Of An Environment, For Example A Modification To A Home To Reduce Manages An Aspect Of The Environment; A Campaign Such As Clean Up Australia Day In Different Communities (ELBT351)

Product That Gives Protection And Is Appealing; A Motor That Moves A Vehicle And Uses A Sustainable Power Source (ELBT36)

Reflecting On The Importance Of Aesthetics, Function And Sustainability In Product Design, For Example A Textile The Asia Region (ELBT262)

Local, Regional And Global Communities, Including Aboriginal And Torres Strait Islander Communities (ELBT340)

Considering The Impact Designed Products, Services Or Environments Have In Relation To Sustainability And Also On Materials Can Be Recycled Or Reused To Reduce Waste; Systems May Benefit Some, But Disadvantage Others (ELBT370)

Demonstrating Safe, Responsible And Cooperative Work Practices When Making Designed Solutions (ELBT128)

Negotiating Criteria For Success With Class Or Group Members (ELBT411)

Evaluating, Revising And Selecting Design Ideas, Based On Criteria For Success And Including Consideration Of Ethics, Social Values And Sustainability (ELBT342)

Evaluating The Functional And Aesthetic Qualities Of A Designed Solution (ELBT35)

Reflecting On The Sustainability Implications Of Selected Designed Solutions (ELBT168)

Comparing The Amount Of Waste That Would Be Produced From Different Design And Development Options And The Potential For Recycling Waste (ELBT406)

Reflecting On Designed Solutions To Critique And Assess Suitability, Sustainability And Enterprise Opportunities And Determine How Well They Meet Success Criteria (ELBT414)

Determining Planning Processes As A Class, For Example Recording A Procedure Or Creating Time Plans (ELBT122)

Managing Time And Resource Allocation Throughout Production, For Example Materials, Tools, Equipment And People (ELBT570)

Identifying The Steps In A Mass Production Process (ELBT457)

Sequencing Steps To Collaboratively Produce A Designed Solution (ELBT350)

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)

Generate, develop, and communicate design ideas and decisions using appropriate technical terms and graphical representation techniques (ACTDEP015)

Select and use materials, components, tools and equipment using safe work practices to make designed solutions (ACTDEP016)

Evaluate design ideas, processes and solutions based on criteria for success developed with guidance and including care for the environment (ACTDEP017)

Plan a sequence of production steps when making designed solutions individually and collaboratively (ACTDEP018)

Design and Technologies Knowledge and Understanding

Design and Technologies Processes and Production Skills

Years 3 And 4 Achievement Standard

Reflecting On The Features Of Designed Solutions That Ensure Safety And Wellbeing Of Users, For Example Smoke Alarms (ELBT355)

Evaluating The Sustainability Implications Of Materials, Systems, Components, Tools And Equipment, For Example Materials Can Be Recycled Or Reused To Reduce Waste; Systems May Benefit Some, But Disadvantage Others (ELBT540)

Considering The Impacted Designed Products, Services Or Environments Have In Relation To Sustainability And Also On Local, Regional And Global Communities, Including Aboriginal And Torres Strait Islander Communities And Countries In The Asia Region (ELBT262)

Reflecting On The Importance Of Aesthetics, Function And Sustainability In Product Design, For Example A Textile Product That Gives Protection And Is Appealing; A Motor That Moves A Vehicle And Uses A Sustainable Power Source (ELBT356)

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 (ELBT515)

Identifying The Impact Of The Designed Features Of An Environment, For Example A Modification To A Home To Reduce Environmental Impact; Restoring A Natural Environment And Retaining Access For The Public (ELBT278)

Reflecting On Accuracy When Designing And Making, For Example Creating A Template, Measuring Ingredients In A Recipe, Sowing Seeds (ELBT67)

Selecting And Using Materials, Components, Tools, Equipment And Processes With Consideration Of The Environmental Impact At Each Stage Of The Production Process (ELBT269)

Designing, Detecting And Designing Using Appropriate Technologies Terms To Confidently Describe And Share With Others The Features And Techniques Of A Designed Solution (ELBT388)

Planning, Sharing And Documenting Creative Ideas And Processes Using Digital Tools Such As A Class Blog Or Collaborative Document (ELBT388)

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 (ELBT67)

Generating, Developing And Communicating Design Ideas And Decisions Using Appropriate Technical Terms And Graphical Representation Techniques (ACTDEP015)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/a9c3f5b4-78e4-409b-b9f7-88dd2b2d8f04)

Investigating How Biomimicry Can Be Used By Engineers And Designers, For Example The Ways Plant And Animal Adaptations Can Be Copied To Solve Human Challenges, For Example The Japanese Building Sendai Mediatheque Based On Seaweed Like Tubes (ELBT272)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/f03362b0-52fe-46b7-b6e6-74655ae8446d)

Recognising The Need To Carefully Plan And Select Components For A System To Perform A Specific Task (ELBT90)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/a7b068a3-c52a-4604-aced-8456c2560824)

Producing Models Using Materials, Tools And Equipment To Show How To Control Movement, Sound Or Light In Structures, For Example The Design Of A House With Passive Solar; The Use Of Optical Fibre In Directing Sunlight; Acoustics Of Recording Studies (ELBT156)


Investigating The Properties In A Control System For An Identified Need Or Opportunity And User, For Example A System That Allows Safe Passage At Pedestrian Crossings (ELBT237)


Investigating And Experimenting With Different Tools, Equipment And Methods Of Preparing Soil And The Effect On Soil Quality And Sustainability, For Example When Designing A Garden For A Community Group (ELBT22)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/a750b174-c52a-4604-8cbb-f7ec2a8ac91c)

Identifying Ways Of Applying, Conserving And Recycling Nutrients In Food And Food Production When Designing A Sustainable School Vegetable Garden Or Cropping Area, For Example Composting And Other Forms Of Organic Fertilisers (ELBT185)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/7f6aea07-a9fb-4a4b-ba26-a127a1b6d01a)

Considering How Low Input Sustainable Agriculture (LISA) Is Used In A Range Of Environments Including Australia And The Countries Of Asia (ELBT145)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/a52f0e87-7cd9-40c2-bc24-b700236334e5)

Describing The Relationship Between Plant Types And Animal Breeds And Their Environmental Suitability When Selecting Suitable Plants Or Animals For An Environment (ELBT37)


Sequencing The Process Of Converting 'On Farm' Food Or Fibre Products Into A Product Suitable For Retail Sale, That Is, The 'Racket To Plate' Supply Chain, Or When Making Yarn Or Fabrics From Fibre (ELBT444)


Investigating The Use Of Technologies Including Digital Technologies In The Production Of Food And Fibre (ELBT26)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/2b6ad284-b448-4030-93aa-7a8f9978c3aa)

Exploring And Comparing The Efficiency Of Different Irrigation Methods In Plant Production Systems Including The Use Of Digital Technologies To Improve The Effectiveness, For Example When Designing A Sustainable Irrigation System To Be Used In A Garden (ELBT12)


Using Current Food Guides And Government Endorsed Food Policies To Plan Food Choices (ELBT155)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/8c8e278b-b55c-4112-812f-5b2f8e60b32c)

Describing And Using Safety Guidelines For Food Storage And Preparation At Home And School, For Example Use And Care Of Charging Boards; Methods Of Preparing And Storing Fruits And Vegetables To Ensure Optimum Quality And Nutrient Content (ELBT749)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/df5e76cd-7cb0-49ef-8990-b5994b070258c)

Experimenting With Tools, Equipment, Combining Ingredients And Techniques To Design And Make Food Products Or Meals For Selected Groups For Healthy Eating Taking Into Consideration Environmental Impact And Nutritional Benefits (ELBT182)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/013df0df-090e-4c4b-93b6-a2c8b9040005)

Considering Traditional And Contemporary Methods Of Food Preparation Used In A Variety Of Cultures, Including Aboriginal And Torres Strait Islander Methods (ELBT76)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/t396e6b95-326a-4581-9315-dc9d0f855d1)

Identifying Work Practices That Show An Understanding Of Nutrition, Environmental Considerations, Hygiene And Food Safety When Designing And Making A Food Product, For Example Washing Fruit And Vegetables Carefully To Remove Residues, Safe Disposal Of Cooking Oils To Avoid Environmental Damage, Refrigerated Storage Of Highly Perishable Foods (ELBT121)


Identifying The Properties Of Materials For The Design And Construction Of A Sustainable Household Item, For Example A Product For Storing Harvested Water (ELBT501)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/69535df7-6321-400c-84f2-64ab4d6d4669)

Evaluating The Functional Properties Of A Specific Purpose Household System, For Example A Security System (ELBT549)


Examining The Materials And Systems Used In A Public Use System That Affect The Way People Live, For Example A Community Exercise Environment Or Arts Facility. Garbage Collection (ELBT139)


Comparing Tools, Equipment And Techniques To Select Those Most Appropriate For A Given Purpose (ELBT426)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/5b723e0f-46e6-4bf5-a008-26853d6d424c)

Evaluating The Use Of Computer Aided Manufacturing In Terms Of Cost And Impacts On Local And Regional Designers, Producers And Enterprises (ELBT338)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/0a3be5f1-e5eb-40de-b9f9-55b2b27b473)

Comparing The Design And Production Of Products, Services And Environments In Australia And A Country In Asia The Region (ELBT18)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/361a3ef8-7e60-4a4f-9333-f8a3869f934b)

Investigating 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 (ACTDEK079)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/a60247c0-b336-4d46-b83d-9965bc98994a)

Investigating how forces or electrical energy can control movement, sound or light in a designed product or system (ACTDEKO20)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/523cc5f5-8671-49a3-8f57-4ba7277f9432)

Investigating how and why food and fibre are produced in managed environments (ACTDEKO21)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/b8f51cd5-51db-41b7-a2d7-9ef1ee4403b)

Investigating the role of food preparation in maintaining good health and the importance of food safety and hygiene (ACTDEKO22)


Deconstructing A Product Or System To Discover How Movement, Sound Or Light Can Be Controlled, For Example Deconstructing A Torch Or Buzzer And Exploring Circuit Design (ELBT212)

Generating A Range Of Design Ideas For Products, Services Or Environments Using Prior Knowledge, Skills and Research (ELBT406)

Developing Alternative Design Ideas And Considering Implications For The Future To Broaden The Appeal And Acceptance Of Design Ideas (ELBT200)

Using Appropriate Protective Equipment Required For The Use Of Some Tools And Equipment, For Example Protective Eye Wear (ELBT375)

Manipulating Materials With Appropriate Tools, Equipment and Techniques, For Example When Preparing Food, Cultivating Garden Beds, Constructing Products (ELBT357)

Independently And Collaboratively Identifying Criteria For Success, Processes And Planning, For Example Using Visual Representations Such As A Flowchart (ELBT297)

Evaluating The Suitability Of Materials, Tools And Equipment For Specific Purposes (ELBT116)

Reflecting On How Well Their Designed Solutions Ensure Safety And Wellbeing Of Users And Consumers And Meet The Needs Of Communities And Different Cultures (ELBT437)

Considering The Criteria For Success In Relation To The Benefits And Costs Of Production Processes, The Environmental Impact, Future Use And Application, and Social Values And Ethics Of Clients (ELBT443)

Evaluating Products, Services And Environments From A Range Of Technologies Contexts With Consideration Of Ethics And Sustainability (ELBT324)

Examining The Essential Features Of Existing Processes To Inform Project Planning Including Safe Work Practices That Minimise Risk (ELBT225)

Setting Milestones For Production Processes And Allocating Roles To Team Members (ELBT248)

Identifying When Materials, Tools And Equipment Are Required For Making The Solution (ELBT165)

Outlining The Planning And Production Steps Needed To Produce A Product, Service Or Environment Using Digital Technologies (ELBT143)

Reflecting On Planned Steps To See If Improvements Can Be Made (ELBT392)

Critique needs or opportunities for designing, and investigate materials, components, tools, equipment and processes to achieve intended designed solutions (ACTDEP024)

Generate, develop, communicate and document ideas and designs for processes using appropriate technical terms and graphical representation techniques (ACTDEP025)

Apply safe procedures when using a variety of materials, components, tools, equipment and techniques to make designed solutions (ACTDEP026)

Negotiate criteria for success that include consideration of sustainability to evaluate design ideas, processes and solutions (ACTDEP027)

Develop project plans that include consideration of resources when making designed solutions individually and collaboratively (ACTDEP028)

Exploiting The Steps Involved In The Process To Satisfy A Design Brief, Need Or Opportunity (ELBT34)

Investigating Design Solutions From Around The World To Make Suitable, Quality Decisions That Meet The Design Brief, Challenge Or Scenario (ELBT97)

Identifying The Importance Of Complementary Parts Of Working, Everyday Systems By Deconstructing The Components, Structure And Purpose Of Products, Services Or Environments (ELBT99)

Testing A Range Of Materials, Components, Tools And Equipment To Determine The Appropriate Technologies Needed To Make Products, Services Or Environments. For Example A Moving Vehicle (ELBT376)

Investigating How To Minimise Material Use And Manage Waste By Critiquing The Environmental And Social Impacts Of Materials, Tools And Equipment (ELBT12)

Generating, developing, communicating and documenting design ideas and processes for audiences using appropriate technical terms and graphical representations (ELBT2)

Investigating needs or opportunities for designing, and investigate materials, components, tools, equipment and processes to achieve intended designed solutions (ACTDEP024)

Negotiate criteria for success that include consideration of sustainability to evaluate design ideas, processes and solutions (ACTDEP027)

Develop project plans that include consideration of resources when making designed solutions individually and collaboratively (ACTDEP028)

Design and Technologies Knowledge and Understanding

Investigating How A Recipe Can Be Modified To Enhance Health Benefits, And Justifying Decisions, For Example By Techniques (ELBT353)

Planning And Making Quality, Safe And Nutritious Food Items, Using A Range Of Food Preparation Tools, Equipment And Imports To And From Asia When Critiquing And Exploring Food And Fibre Production (ELBT319)

Recognising The Importance Of Food And Fibre Production To Australia's Food Security And Economy Including Exports (ELBT24)

Producing Food And Fibre Products (ELBT450)

Describing Physical And Chemical Characteristics Of Soil And Their Effects On Plant Growth When Producing Food And Fibre Products (ELBT216)

Investigating The Management Of Plant And Animal Growth Through Natural Means And With The Use Of Chemicals Like Herbicides And Medicines When Producing Food And Fibre Products (ELBT77)

Investigating The Ethics Of Using Surveillance Systems While Balancing Privacy, Security And Safety Concerns (ELBT73)


Investigating How Developments In Materials, Tools And Equipment Influence Designed Solutions (ELBT141)

Identifying Needs And New Opportunities For Design And Enterprise, For Example Promotion And Marketing Of Designed Solutions (ELBT170)

Investigating How Improvements In Materials, Tools And Equipment Influence Designed Solutions (ELBT141)

Investigating Influences Impacting On Manufactured Products And Processes Such As Historical Developments, Society, New Materials, Control Systems And Biomics, For Example The Development Of Vaccines (ELBT446)

Experimenting To Select The Most Appropriate Principles And Systems On Which To Base Design Ideas, For Example Structural Components To Be Tested For Strength (ELBT336)

Calculating An Engineered System's Outputs, For Example Speed, Brightness Of Light, Volume Of Sound (ELBT208)

Producing Prototypes And Jigs To Test Functionality, Including The Use Of Rapid Prototyping Tools Such As 3 D Printers (ELBT480)

Using Code To Control Systems, For Example Code To Program A Microcontroller Or A Simple, Object Based Coding Application To Program A System Such As A Remote Controlled Car Or Simple Robotic Arm (ELBT48)

Investigating Components, Tools And Equipment For Example Testing The Durability Of Batteries, Determining The Effective Range Of Wireless Devices (ELBT322)

Comparing Land And Water Management Methods In Contemporary Australian Food And Fibre Production With Traditional Aboriginal Systems And Countries Of Asia, For Example Minimum Tillage Cropping, Water Efficient Irrigation (ELBT330)

Investigating The Management Of Plant And Animal Growth Through Natural Means And With The Use Of Chemical Products Like Herbicides And Medicines When Producing Food And Fibre Products (ELBT77)

Recognising The Need To Increase Food Production Using Cost Efficient, Ethical And Sustainable Production Techniques (ELBT226)

Describing Physical And Chemical Characteristics Of Soil And Their Effects On Plant Growth When Producing Food And Fibre Products (ELBT450)

Investigating Different Animal Feeding Strategies Such As Grazing And Supplementary Feeding, And Their Effects On Product Quality, For Example Meat Tenderness, Wool Fibre Diameter (Micron), Milk Fat And Protein Content When Producing Food And Fibre Products (ELBT24)

Planning And Making Quality, Safe And Nutritious Food Items, Using A Range Of Food Preparation Tools, Equipment And Techniques (ELBT353)

Examining The Relationship Between Food Preparation Techniques And The Impact On Nutrient Value, For Example Steaming Vegetables (ELBT279)

Investigating How A Recipe Can Be Modified To Enhance Health Benefits, And Justifying Decisions, For Example By Replacing Full Cream Milk With Skim Milk (ELBT345)

Link:
https://www.australiancurriculum.edu.au/elements/2014/09/1f3f0d42-849f-4d9f-b417-acebe9056f73f
Practising Techniques To Improve Expertise, For Example Handling Animals, Cutting And Joining Materials (ELBT439)

Designed For Sustainability (ELBT277)

Developing Technical Production Skills And Safe Working Practices With Independence To Produce Quality Solutions Of Ideas (ELBT178)

Developing Models, Prototypes Or Samples Using A Range Of Materials, Tools And Equipment To Test The Functionality (ELBT460)

Digital Polling To Capture The Views Of Different Groups In The Community (ELBT129)

Selecting Appropriate Materials To Acknowledge Sustainability Requirements By Using Life Cycle Thinking (ELBT280)

Of Food, For Example The Browning Of Cut Fruit, The Absorption Of Water When Cooking Rice (ELBT447)

Impact Of These On Nutrient Retention, Aesthetics, Taste And Palatability, For Example Stir Frying (ELBT137)

Analyzing Food Preparation Techniques Used In Different Cultures Including Those From The Asia Region And The Impact Of These On Nutrient Retention, Aesthetics, Taste And Palatability, For Example Stir Frying (ELBT137)

Explaining How Food Preparation Techniques Impact On The Sensory Properties (Flavour, Appearance, Texture, Aroma) Of Food, For Example The Browning Of Cut Fruit. The Absorption Of Water When Cooking Rice (ELBT447)

Investigating Aspects Of Technologies Specialisations, For Example In Architecture, Critiquing The Design Of An Existing Building To Identify Features Of Passive Design Or In Fashion, Evaluating The Sustainability Of Different Fibres (ELBT441)

Investigating And Selecting From A Broad Range Of Technologies – Materials, Systems, Components, Tools And Equipment – When Designing For A Range Of Technologies Contexts (ELBT203)

Considering The Ways In Which The Characteristics And Properties Of Technologies Will Impact On Designed Solutions, For Example The Choice Of Building Materials And Housing Design In Australia And The Countries Of Asia; The Properties Of Textile Fibres And Fabrics Determine End Use (ELBT416)


Evaluating Products And Services For The Individual And The Community Considering Ethics And Social Factors, For Example A Short Video Encouraging Individuals To Increase Their Use Of Public Transport In The Local Area (ELBT419)

Examining, Testing And Evaluating A Variety Of Suitable Materials, Components, Tools And Equipment For Each Design Project, For Example The Differences Between Natural Hardwood And Plantation Softwood Timbers, Which Determine Their Suitability For Particular Uses Related To Durability, For Example Interior Or Exterior Use (ELBT224)

Examining, Testing And Evaluating A Variety Of Suitable Materials, Components, Tools And Equipment For Each Design Project, For Example The Differences Between Natural Hardwood And Plantation Softwood Timbers, Which Determine Their Suitability For Particular Uses Related To Durability, For Example Interior Or Exterior Use (ELBT224)

Investigating The Impact Of These On Nutrient Retention, Aesthetics, Taste And Palatability, For Example Stir Frying (ELBT137)

Conducting An Experiment To Capture The Views Of Different Groups In The Community (ELBT279)

Considering Which Ideas To Further Explore And Investigating The Benefits And Drawbacks Of Ideas, For Example Using Digital Polling To Capture The Views Of Different Groups In The Community (ELBT279)

Considering The Ways In Which The Characteristics And Properties Of Technologies Will Impact On Designed Solutions, For Example The Choice Of Building Materials And Housing Design In Australia And The Countries Of Asia; The Properties Of Textile Fibres And Fabrics Determine End Use (ELBT416)

Investigating The Impact Of These On Nutrient Retention, Aesthetics, Taste And Palatability, For Example Stir Frying (ELBT137)

Analyse how characteristics and properties of food determine preparation techniques and presentation when designing solutions for healthy eating (ACTDEK033)

Investigating Emerging Technologies And Their Potential Impact On Design Decisions, For Example Flame Retardant Fabrics Or Smart Materials Such As Self Healing Materials, Digital Technologies And Agriculture (ELBT103)

Examining And Investigating The Benefits And Drawbacks Of Ideas, For Example Using Digital Polling To Capture The Views Of Different Groups In The Community (ELBT279)

Considering The Ways In Which The Characteristics And Properties Of Technologies Will Impact On Designed Solutions, For Example The Choice Of Building Materials And Housing Design In Australia And The Countries Of Asia; The Properties Of Textile Fibres And Fabrics Determine End Use (ELBT416)

Examine and prioritise competing factors including social, ethical and sustainability considerations in the development of technologies and designed solutions to meet community needs for preferred futures (ACTDEK029)

Investigating the ways in which products, services and environments evolve locally, regionally and globally through the creation, innovation, implementation and dissemination of individuals and groups (ACTDEK030)

Analyze ways to produce designed solutions through selecting and combining characteristics and properties of materials, systems, components, tools and equipment (ACTDEK034)

Analyze how food and fibre are produced when designing managed environments and how these can become more sustainable (ACTDEK032)

Experimenting With Traditional And Contemporary Technologies When Developing Designs, And Discovering The Advantages And Disadvantages Of Each Approach (ELBT395)

Experimenting With Traditional And Contemporary Technologies When Developing Designs, And Discovering The Advantages And Disadvantages Of Each Approach (ELBT395)

Evaluating Environments That Have Been Designed In Consultation With Community Groups, For Example A Bush Tucker Community Garden Developed In Consultation With Local Elders (ELBT16)

Evaluating Products And Services For The Individual And The Community Considering Ethics And Social Factors, For Example A Short Video Encouraging Individuals To Increase Their Use Of Public Transport In The Local Area (ELBT419)

Analyse how force, energy and are used to manufacture and control electromechanical systems when designing simple, engineered solutions (ACTDEK031)

Analyze how force, energy and are used to manufacture and control electromechanical systems when designing simple, engineered solutions (ACTDEK031)

Evaluating Environments That Have Been Designed In Consultation With Community Groups, For Example A Bush Tucker Community Garden Developed In Consultation With Local Elders (ELBT16)

Evaluating Products And Services For The Individual And The Community Considering Ethics And Social Factors, For Example A Short Video Encouraging Individuals To Increase Their Use Of Public Transport In The Local Area (ELBT419)

Examining And Investigating The Benefits And Drawbacks Of Ideas, For Example Using Digital Polling To Capture The Views Of Different Groups In The Community (ELBT279)

Examining And Investigating The Benefits And Drawbacks Of Ideas, For Example Using Digital Polling To Capture The Views Of Different Groups In The Community (ELBT279)

Evaluating The Viability Of Using Different Technologies And Materials In Remote, Isolated Areas, Or Less Developed Countries (ELBT194)

Evaluating The Viability Of Using Different Technologies And Materials In Remote, Isolated Areas, Or Less Developed Countries (ELBT194)

Selecting Appropriate Materials To Acknowledge Sustainability Requirements By Using Life Cycle Thinking (ELBT280)

Selecting Appropriate Materials To Acknowledge Sustainability Requirements By Using Life Cycle Thinking (ELBT280)

Using A Variety Of Critical And Creative Thinking Strategies Such As Brainstorming, Sketching, 3 D Modelling And Experimenting To Generate Innovative Design Ideas (ELBT339)

Using A Variety Of Critical And Creative Thinking Strategies Such As Brainstorming, Sketching, 3 D Modelling And Experimenting To Generate Innovative Design Ideas (ELBT339)

Applying Design Thinking Principles To Investigate The Characteristics And Properties Of Different Materials And How These Can Be Used To Produce Designed Solutions (ELBT192)

Identifying Factors That May hinder Or Enhance Project Development, For Example Intercultural Understanding (ELBT460)

Identifying Factors That May hinder Or Enhance Project Development, For Example Intercultural Understanding (ELBT460)

Developing Models, Prototypes Or Samples Using A Range Of Materials, Tools And Equipment To Test The Functionality Of Ideas (ELBT178)

Producing Annotated Concept Sketches And Drawings. Using: Technical Terms, Scale, Symbols, Pictorial And Aerial Views To Draw Environments; Production Drawings, Orthogonal Drawings, Patterns And Templates To Explain Design Ideas (ELBT333)

Documenting And Communicating The Generation And Development Of Design Ideas For An Intended Audience, For Example Developing A Digital Portfolio With Images And Text Which Clearly Communicates Each Step Of A Design Process (ELBT277)

Documenting And Communicating The Generation And Development Of Design Ideas For An Intended Audience, For Example Developing A Digital Portfolio With Images And Text Which Clearly Communicates Each Step Of A Design Process (ELBT277)

Developing Technical Production Skills And Safe Working Practices With Independence To Produce Quality Solutions Designed For Sustainability (ELBT277)

Developing Technical Production Skills And Safe Working Practices With Independence To Produce Quality Solutions Designed For Sustainability (ELBT277)

Practising Techniques To Improve Expertise, For Example Handling Animals, Cutting And Joining Materials (ELBT439)

Practising Techniques To Improve Expertise, For Example Handling Animals, Cutting And Joining Materials (ELBT439)
Recognising Real World Problems And Understanding Basic Needs When Considering Designed Solutions, For Example Constructing Scenarios Of How The Future May Unfold (Forecasting) And What Impacts There May Be For Society And Predicting The Impact Of Emerging Technologies For Preferred Futures (ELBT378)

For Example A Managed Public Environment Such As A Theme Park (ELBT190)

Example E Commerce, And Carbon Footprint (ELBT479)

Exploring The Ways Commercial Enterprises Respond To The Challenges And Opportunities Of Technological Change, For Considering How Creativity, Innovation And Enterprise Contribute To How Products, Services And Environments Evolve (ELBT237)

Mass Production Of Food, Clothing And Shoes And Why Manufacturers Produce Different Versions Of The Same Product Critiquing Mass Production Systems Taking Into Account Ethics And Sustainability Considerations, For Example The Footprint (ELBT226)

Example Rethinking Products To Provide For Re Use, Selecting A Material For A Product That Has A Lower Carbon Explaining How Product Life Cycle Thinking Can Influence Decision Making Related To Design And Technologies, For (ELBT237)

Investigating The Time Needed For Each Step Of Production (ELBT11)

Identifying Risks And How To Avoid Them When Planning Production (ELBT473)

Design and Technologies Knowledge and Understanding Explaining And Interpreting Drawings, Planning And Production Steps Needed To Produce Products, Services Or Environments For Specific Purposes (ELBT54)

Design and Technologies Processes and Production Skills Use project management processes when working individually and collaboratively to coordinate production of designed solutions (ACTDEP039)

Evaluating Design And Technology Professions And Their Contributions To Society Locally, Nationally, Regionally And Globally, For Example Aboriginal Designers Collaborating With International Craftspersons For Local Enterprises (ELBT359)

Generating, test and communicate design ideas, plans and processes for various audiences using appropriate technical terms and technologies including graphical representation techniques (ACTDEP036)

Effectively and safely use a broad range of materials, components, tools, equipment and techniques to make designed solutions (ACTDEP037)

Independently develop criteria for success to assess design ideas, processes and solutions and their sustainability (ACTDEP038)


Years 7 And 8 Achievement Standard link (http://rdf.australiancurriculum.edu.au/elements/2014/09/43795054-5c72-4d52-bc0b-da9ff7e70d95e9)

Developing Innovative Ways Of Manipulating Technologies Using Traditional And Contemporay Materials, Components, Tools, Equiments Including Technologies That Could Be Substituted To Reduce Waste Or Time (ELBT31)

Developing Criteria For Success To Assess The Success Of Designed Solutions In Terms Of Aesthetics, Functionality And Sustainability (ELBT92)

Considering How To Improve Technical Expertise (ELBT275)

Evaluating Designed Solutions And Processes And Transferring New Knowledge And Skills To Future Design Projects (ELBT188)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/28942734-e9f2-4ab1-8f61-d6f5870e885d)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/4ee0c825-c4aa-422f-8db8-499ee6812801)

Recognising The Impact Of Past Designed Solutions And Possible Future Decisions In Relation To Creating Preferred (ELBT372)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/5fbd296e-c078-482c-87fc-9db543dbf21c)


link (http://rdf.australiancurriculum.edu.au/elements/2014/09/af676b3-13d6-42bc-a7ed-fb7c8947cafe6)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/afaf7407-1f66-42bc-a7ed-fb7c8947cafe6)


link (http://rdf.australiancurriculum.edu.au/elements/2014/09/81b5f7ae-4c7b-475e-98b8-42fe2e9c86d)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/81b5f7ae-4c7b-475e-98b8-42fe2e9c86d)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/9f1b23f7-4f3c-450d-90ff-7d8fa02b9f10d)


link (http://rdf.australiancurriculum.edu.au/elements/2014/09/7e1af0ed-4c7b-475e-98b8-42fe2e9c86d)

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link (http://rdf.australiancurriculum.edu.au/elements/2014/09/afaf7407-1f66-42bc-a7ed-fb7c8947cafe6)
Examining And Explaining The Intersection Between Material Properties And Function Of A Common System, Such As Car Brakes (ELBT435)


Analysing The Relationship Between Materials Of Properties, Forces And Safety In Engineered Systems Such As Bridges (ELBT405)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/4a52a6f7-8923-4185-9c4e-33bf06ef3f3a)

Critiquing The Effectiveness Of The Combintions Of Materials, Forces, Energy And Motion In An Engineered System Such As A 3 D Printer (ELBT705)


Calculating Forces, Reactions And Loads In Structures (ELBT161)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/5c0d88fe-d3ca-446e-a3be-91f238e19f1a)

Examining Emerging Production Technologies And Methods In Terms Of Productivity, Profitability And Sustainability, For Example Vertical Farming, Recirculation Technologies In Aquaculture (ELBT126)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/e15f0547-8f99-4a0c-9a0c-c229a18a125)

Investigating How Digital Technologies Could Be Used To Enhance Food Production Systems, For Example Global Positioning System (GPS) For Managing Animals, Crop Sensors Or Aerial Animal Feeding Or Milking (ELBT116)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/4d09f0ae-5a55-a377-8823-c527ec8cc04b)

Comparing The Environmental Impacts Of Intensive And Extensive Production Systems And Their Contribution To Food And Fibre Production (ELBT26)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/57a6f9-5a77-a40b-b4c5-f57a3f9e4a4f)

Investigating The Interdependence Of Plants And Animals In Food And Fibre Production (ELBT197)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/5d3ca6a7-541b-fb56-9ac8293c8f4a)

Examining The Marketing Chain Of A Range Of Agricultural Products And Outlining The Effect Of Product Processing And Advertising On Demand And Price (ELBT185)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/70903927-1051-44b1-8f05-41acef8b9e38)

Taking Account Of Animal Welfare Considerations In Food And Fibre Production Enterprises (ELBT60)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/eebaa4e6-a583-45bd-b1f9-e0c022a49f86)

Experimenting With Food Preservation Methods Such As Freezing And Dehydrating To Determine Changes To Food Structure And How These Impact On Designing Healthy Food Solutions, For Example Dehydrating Fruit For The Lunch Box (ELBT74)


Conducting Sensory Assessment Testing Of A Range Of Foods To Determine How These Characteristics Might Be Used To Enhance Food Solutions, For Example Taste Testing A Variety Of Milks, Comparing Freshly Squeezed Juice To Commercial Juices (ELBT472)


Determining How The Causes Of Food Spoilage Can Be Addressed When Cooking, Presenting And Storing Food Items, For Example Developing A Comprehensive Checklist Of Considerations For Safe And Hygienic Food Storage And Preparation Including Danger Zone Temperatures For A Food Service (ELBT477)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/7f6842cc-356c-4fd1-b900-037ab3eb292c)

Preparing And Presenting Foods Using A Range Of Techniques To Ensure Optimum Nutrient Content, Flavour, Texture And Visual Appeal, For Example Designing And Producing A Healthy Snack For The Canteen And Using Food Photography And Digital Technologies To Promote The Item In A Healthy Eating Campaign (ELBT52)


Critiquing The Design Of An Existing Product To Identify Environmental Consequences Of Material Selection (ELBT374)


Justifying Decisions When Selecting From A Broad Range Of Technologies – Materials, Systems, Components, Tools And Equipment, For Example Selecting Low Emission Paints And Locally Sourced Materials (ELBT295)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/a8204ac5-645a-436d-88cb-9f055a6a0799)

Analysing And Explaining The Ways In Which The Properties And Characteristics Of Materials Have Been Considered In The Design Of A Product With Specific Requirements Such As Reduced Weight To Reduce Transport Costs In Rural Australia (ELBT324)


Investigating Emerging Materials And Their Impact On Design Decisions (ELBT328)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/3af88de6-d38f-4956-9c6b-5af68415a7c9)

Examining Factors Influencing The Design Of A Product That Has An Explicit Environmental Emphasis, For Example The Low Flush Toilet (ELBT187)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/f3a3de3b-78a7-4abo-8565-a0db7e3db026)

Critiquing Product Manufacturing Processes In Relation To Society, Ethics, And Sustainability Factors, For Example A Mechanised Entertainement System; An Interactive Multimedia Product To Teach A Concept To A Student In A Country In Asia (ELBT366)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/f7ee52e2-b20c-494d-97b5-63855efbd97d)

Critiquing The Social Nature Of Services, For Example A Signage System To Manage Students And Community Members During A School Function (Signs May Include Words, Pictures And Or Braille); Organisational System For An Aged Care Facility (ELBT410)


Critiquing Environments In Relation To Preferred Futures In Society, Ethics And Sustainability Practices, For Example The Re Design Of A Local Playground; The Re Design Of A Local Wetland (ELBT397)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/7aa3440c-2b3a-4b0a-bf3b-37b56ee43cd4)

Critically analyse factors, including social, ethical and sustainability considerations, that impact on designed solutions for global preferred futures and the complex design and production processes involved (ACTDEK040)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/099a79a-f665-475b-b5b0-817588e59f8b)

Explain how products, services and environments evolve with consideration of preferred futures and the impact of emerging technologies on design decisions (ACTDEK045)


Investigate and make judgments on how the principles of food safety, preservation, preparation, presentation and sensory perceptions influence the creation of food solutions for healthy eating (ACTDEK045)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/3c0d5c55-0a9f-4ae5-88f8-9220d32bb99)

Investigate and make judgments on how the characteristics and properties of materials, systems, components, tools and equipment can be combined to create designed solutions (ACTDEK046)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/6ea07df6-7229-4fba-8bd1-a0dddfca4136)
Design and Technologies Knowledge and Understanding link (http://rdf.australiancurriculum.edu.au/elements/2014/09/edddc0d1-dff9-42fb-89f03-74ead4f8838d8)


Years 9 And 10 Achievement Standard link (http://rdf.australiancurriculum.edu.au/elements/2014/09/6f0b3d4f-26a-4b4a-81f9-29c85b529aa32)

Foundation to Year 2 link (http://rdf.australiancurriculum.edu.au/elements/2014/09/bec96079-904d-4e95-9701-e7f699f6588242)

Years 3 and 4 link (http://rdf.australiancurriculum.edu.au/elements/2014/09/16d822e2-8d03-4422-9e83-8005267bb3e9)

Years 5 and 6 link (http://rdf.australiancurriculum.edu.au/elements/2014/09/8e38e7e4-4c04-4788-8773-2e4c84aaccb25)

Years 7 and 8 link (http://rdf.australiancurriculum.edu.au/elements/2014/09/948db26a-2f27-4a89-bf76-a515e0ff0c8e)

Years 9 and 10 link (http://rdf.australiancurriculum.edu.au/elements/2014/09/41aed96-482f-4322-b701-56823a7eb79b)


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 (ELBM220)

Identifying The Best Methods Of Presenting Data To Illustrate The Results Of Investigations And Justifying The Choice Of Representations (ELBM222)

Using And Comparing Data Representations For Different Data Sets To Help Decision Making (ELBM517)

Pose questions and collect categorical or numerical data by observation or survey (ACMSP198)

Construct displays, including column graphs, dot plots and tables, appropriate for data type, with and without the use of digital technologies (ACMSP199)

Describe and interpret different data sets in context (ACMSP120)

Data representation and interpretation link (http://rdf.australiancurriculum.edu.au/elements/2014/09/5f9f77b4-2d50-4340-ac19-9e4600a25355)


Recognising That Some Units Of Measurement Are Better Suited For Some Tasks Than Others, For Example Kilometres Rather Than Metres To Measure The Distance Between Two Towns (ELMB66)

Investigating Alternative Measures Of Scale To Demonstrate That These Vary Between Countries And Change Over Time, For Example Temperature Measurement In Australia, Indonesia, Japan And USA (ELBM034)

Exploring Efficient Ways Of Calculating The Perimeters Of Rectangles Such As Adding The Length And Width Together And Doubling The Result (ELBM059)

Exploring Efficient Ways Of Finding The Areas Of Rectangles (ELBM510)

Investigating The Ways Time Was And Is Measured In Different Aboriginal Country, Such As Using Tidal Change (ELBM191)

Using Units Hours, Minutes And Seconds (ELBM192)

Choose appropriate units of measurement for length, area, volume, capacity and mass (ACMVM100)

Calculate the perimeter and area of rectangles using familiar metric units (ACMVM109)

Compare 12- and 24-hour time systems and convert between them (ACMVM110)

Identifying The Shape And Relative Position Of Each Face Of A Solid To Determine The Net Of The Solid, Including That Of Prisms And Pyramids (ELBM193)

Representing Two Dimensional Shapes Such As Photographs, Sketches And Images Created By Digital Technologies (ELBM194)

Connect three-dimensional objects with their nets and other two-dimensional representations (ACMVM111)

Comparing Aerial Views Of Country, Desert Paintings And Maps With Grid References (ELBM196)

Choose appropriate units of measurement for length, area, volume, capacity and mass (ACMVM100)

Calculate the perimeter and area of rectangles using familiar metric units (ACMVM109)

Explore 12- and 24-hour time systems and convert between them (ACMVM110)

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Introduce the Cartesian coordinate system using all four quadrants (ACMMG143)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/3b2f7a685-dec5-4375-88cc-9e4600a2537a)

Identifying The Size Of A Right Angle As 90°#176; And Defining Acute, Obtuse, Straight And Reflex Angles (ELBM521)


Measuring, Estimating And Comparing Angles In Degrees And Classifying Angles According To Their Sizes (ELBM523)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/21545948-1f82-4a4f-bd93-9f900e54109)

Investigating The Use Of Rotation And Symmetry In The Diagrammatic Representations Of Kinship Relationships Of Central And Western Desert People (ELBM522)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/66d8f0a7-4749-4d41-b70e-9fb900e54109)

Recognising And Using The Two Alternate Conventions For Naming Angles (ELBM520)


Investigate, with and without digital technologies, angles on a straight line, angles at a point and vertically opposite angles. Use results to find unknown angles (ACMMG141)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/e9b088b-465b-4c63-b53f-9e4600a2537a)

Using units of measurement


Shape

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/e456aef8-7b08-4536-a024-9e4600a2537a)

Location and transformation

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/e63dbbf4-3e1-e4d8-ba91-9e4600a2534b)

Geometric reasoning

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/e662b52b-5ff0-465b-a166-9e4600a2537a)

Comparing Different Student Generated Diagrams, Tables And Graphs; Describing Their Similarities And Differences And Commenting On The Usefulness Of Each Representation For Interpreting The Data (ELBM537)

link (http:// rdf.australiancurriculum.edu.au/elements/2014/09/daad6a1d-87de-a47b-b5a7-9f9b900e54424)

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 (ELBM536)


Investigating Data Representations In The Media And Discussing what They Illustrate And The Messages The People Who Created Them Might Want To Convey (ELBM538)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/92f1b9e4-002c-4081-9771-9f9b900e5449f)

Identifying Potentially Misleading Data Representations In The Media, Such As Graphs With Broken Axes Or Non Linear Scales, Graphs Or Diagrams Not Drawn To Scale, Data Not Related To The Population About Which The Claims Are Made, And Pie Charts In Which The Whole Pie Does Not Represent The Entire Population About Which The Claims Are Made (ELBM539)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/2c9e663d-b315-4824-9a29-9f9b900e5449f)

Interpret and compare a range of data displays, including side-by-side column graphs for two categorical variables (ACMSPI47)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/3a05f7e7-66a0-4931-a299-9e4600a25356)

Interpret secondary data presented in digital media and elsewhere (ACMSPI48)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/89c4b893-df51-4c3b-bc8-9e4600a25355)

Data representation and interpretation

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/4ca43f3ab-e05a-43cc-8adb-9e4600a25355)

Reading And Interpreting The Graduated Scales On A Range Of Measuring Instruments To The Nearest Graduation (ELBM149)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/a2f9f14c-0353-40db-9195-9e4600a2537f)

Comparing Areas Using Grid Paper (ELBM508)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/6b70e44a-3ca3-4f7f-9e14-9f9b900e53ed3)

Comparing Volume Using Centicubes (ELBM506)


Recognising That Metric Units Are Not The Only Units Used Throughout The World, For Example Measuring The Area Of Floor Space Using Tatami Mats (Japan), Using Squares For Room And House Area (Australia) (ELBM507)


Identifying And Using The Correct Operation For Converting Units Of Time (ELBM150)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/e1f722d7-8b64-4e3f-9205-9e4600a2537f)

Calculating The Time Spent At School During A Normal School Day (ELBM191)


Calculating The Time Required To Travel Between Two Locations (ELBM152)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/49d2e177-535a-4d6a-bc8-9e4600a2537f)

Determining Arrival Time Given Departure Time (ELBM153)


Use scaled instruments to measure and compare lengths, mass, capacity and temperatures (ACMMG094)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/64ce640f-70e4-4388-bcd6-9e4500a2537f)

Compare objects using familiar metric units of area and volume (ACMGG290)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/46e60782-b811-4e7f-9e4600a2537f)

Convert between units of time (ACMGG089)


Use am and pm notation and solve simple time problems (ACMGG086)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/7af6caa3-aa4-4827-a070-9e4600a2537f)

Comparing Areas Using Metric Units, Such As Counting The Number Of Square Centimetres Required To Cover Two Areas By Overlaying The Areas With A Grid Of Centimetre Squares (ELBM154)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/f7f040a5-b00e-47c6-a3d8-9e4600a2537f)

Identifying Common Two Dimensional Shapes That Are Part Of A Composite Shape By Re Creating It From These Shapes (ELBM155)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/fef8b0d0-bc08-4305-b54d-9e4600a2537f)

Creating A Two Dimensional Shapes From Verbal Or Written Instructions (ELBM156)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/ea8a10b1-47e0-477c-8e0b-9e4600a2537f)

Compare the areas of regular and irregular shapes by informal means (ACMG087)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/d5e25a8e-5a56-4af1-ba46-9e4600a2537f)

Compare and describe two dimensional shapes that result from combining and splitting common shapes, with and without the use of digital technologies (ACMG088)

link (http://rdf.australiancurriculum.edu.au/elements/2014/09/d6143dd2-c8fd-45a5-a847-9e4600a2537f)