



Puzzle cube

Grade Level/s:
4, 5, 6, 7

Subject/s:
Mathematics, Technologies

Type:
Unit Plan

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Puzzle cube

Students are learning about 2D shapes and 3D shapes. They are problem solving and working out how many cubes fit into a cube net. As an extension students design puzzle pieces that are joined to make larger shapes. All shapes need to fit into the cube.

Single Lesson Plan

Puzzle cube

Task:

Activity:

Resources:

Downloadable files



Learning_Design_six_steps_horizontal_worksheet_cube.docx

(/download/lesson_plan_attachments/files/000/000/106/original/Learning_Design_six_steps_horizontal_worksheet_cube.docx?1494557506)

Curriculum

South Australian TfEL:

2.4 challenge students to achieve high standards with

3.4 promote dialogue as a means of learning

4.4 communicate learning in multiple modes

Australian Curriculum:

Using Different Peripheral Devices To Display Information To Others, For Example Using A Mobile Device, Interactive Whiteboard Or A Data Projector To Present Information (ELBT177)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/85c37ddf-7ba6-4054-a96d-a8379f2e0c60>)

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)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/e0447075-e087-4398-9025-d880bfd3e47>)

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)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/fa531ba4-fc96-4d28-a38a-6aa0cc5af760>)

Investigating How Information Systems Are Used In Communities And Explaining What Needs Are Being Met, For Example Students Jointly Creating A Short Survey And Collecting Data About How Many Community Residents Use The Online Library Borrowing System To Download E Books And Why They Do Or Do Not (ELBT407)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/35a22e2a-16cd-42f7-861c-313dda7bda96>)

Imagining And Considering Alternative Uses And Opportunities For Information Systems Used In The Classroom, For Example Visiting A Virtual Museum And Being Able To Feel The Texture Of Historical Asian Objects Or To View Aboriginal And Torres Strait Islander Artworks (ELBT446)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/cecec802-de41-4076-9eaa-1b2d636e059c>)

Exploring Information 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)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/aa3438ef-b2f9-42dc-a5e1-d86e6f5fa24c>)

Testing The Adequacy Of Developed Solutions, For Example Asking A Classmate To Review A Digital Solution And Provide Feedback (ELBT215)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/7f2e8551-115e-4db1-8d89-8f79dfa87219>)

Considering 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 And Recognising That All Digital Interactions Are Difficult To Erase (Digital Footprints) (ELBT28)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/4e1eb6b6-9993-43f9-a130-f2dabba9ce3>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/cbb87fbc-b7fc-49cb-b3fb-8bed13df4871>)

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 Online With Students From Another School (ELBT431)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/95e92e36-fd0a-4eae-be41-24a6f254fc67>)

Managing A Project That Involves Students Working Together To Publish Online, For Example Identifying How Group Members Can Help Each Other To Avoid Delays In Finishing The Project (ELBT181)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/99b523c0-4207-4cb5-9ebc-a2e341d43c5f>)

Discussing Digital Citizenship Rules And Behaviours For Participating In An Online Environment, For Example Not Using All Capital Letters When Expressing A Strong Viewpoint About A Contentious Matter And Ensuring That The Audience Is Aware Of Your Identity (ELBT421)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/787de2ee-08e4-4249-8ddb-276c2b8893c5>)

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)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/32c96808-ab0c-42c0-b06a-5dba7a5cc506>)

Explain how developed solutions and existing information systems meet common personal, school or community needs, and envisage new ways of using them (ACTDIP012)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/bae3630b-687d-4066-b956-063fd93e3602>)

Work with others to plan the creation and communication of ideas and information safely, applying agreed ethical and social protocols (ACTDIP013)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/e5530bea-292f-4e52-9259-c80b3702d6ff>)

Years 3 And 4 Achievement Standard

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/07fe87ca-5407-48f7-9bfd-87fca1cf5d37>)

Describing Digital Systems As Having Internal And External Components That Perform Different Functions, For Example External Components For Inputting Data Including Keyboard, Microphone, Stylus; Internal Processing Components Include The Central Processing Unit; External Output Components Including Speakers, Projector, Screen; And Data And Information Storage Components Include Cloud And External Devices (ELBT284)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/68ff16b9-ae35-4166-8201-6f25409f8e21>)

Explaining How Data May Be Transmitted Between Two Digital Systems In Different Ways, For Example That Wires Or Cables Are Used In Wired Networks To Transfer Data From One Digital System To Another, And Radio Waves Are Used To Transmit Data In Wireless Or Mobile Networks (ELBT482)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/820a58a5-c494-452c-94b0-943adbacdbc8>)

Investigating How Emerging Digital Systems Work, For Example Using An Augmented Reality App (Or Blended Reality) And Considering How Images Of Real World Objects Can Be Blended With Computer Generated Information To Produce A Virtual Reality (ELBT55)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/9e8d1b02-6be4-48be-83fe-e6417de828c4>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/3d7ee432-6dec-41a1-ba67-826a02c9fdc3>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/0b58ea9f-c8bb-4fb6-8678-464bb1d2a6ef>)

Experimenting With Different Ways Of Representing An Instruction To Make A Choice, For Example Branches In 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 (ELBT13)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/1797a999-d835-4e2d-9413-fac532f038ef>)

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/2014/09/1cf51bf3-a48b-4558-9ac2-6c629fa915ba>)

Designing The Instructions For A Robot Vacuum Cleaner To Clean A Room (ELBT346)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/e524f13d-9ad9-4fc0-a782-5085e85f16b2>)

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)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/8ee5f63d-7597-458c-a79a-c60daa66a51b>)

Design, modify and follow simple algorithms represented diagrammatically and in English involving sequences of steps, branching, and iteration (repetition) (ACTDIP019)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/a6c04dad-2d6d-4596-ac2a-841eb3fcbab4>)

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 Any Files Over A Network And Transmission Control Protocol/Internet Protocol (Tcp/Ip) Is Used For Controlling File Transfers Over The Internet (ELBT135)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/ac819467-e203-484a-ac83-be9a8d0560d5>)

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 (ELBT395)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/c1e65e32-65a8-4260-9a44-39432d4800ca>)

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/2014/09/9ec53d0e-d59b-4137-9d3e-d818ab55c274>)

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)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/131f88e6-1689-4f62-b81d-81b1750f6f8a>)

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/2014/09/759e7f7a-3ed1-411a-bc21-3d6dac10baa3>)

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/2014/09/65307b86-d87c-4f7d-aa14-9c79466ef15d>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/e97503d3-cdae-494b-8ca1-d741bcc84f1c>)

Organising The Instructions And Files In Readiness For Implementation Of A Solution, For Example Applying A File Naming Convention To All Data Files That Are Going To Be Used To Create Solutions (ELBT259)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/9f4dbc4b-6958-45c2-bcb1-7b5438e27935>)

Documenting The Tasks That Need To Be Done, Their Order And The Resources That Are Needed To Create Solutions (ELBT387)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/7d50199f-8d64-48f7-9ed7-3d37c4922a25>)

Analyse and visualise data using a range of software to create information, and use structured data to model objects or events (ACTDIP026)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/f028d6e7-3dd0-4ceb-878e-889cdf9f1533>)

Exploring, Playing With And Testing Materials For Their Appropriateness, For Example Materials For A New Sun Shade Product (ELBT158)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/f913f321-5515-4f21-a84c-b24a39ca240e>)

Examining The Suitability Of A Service Or Everyday System And Proposing Improvements, For Example A Water Saving System For A Bathroom At Home (ELBT154)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/53ce6d07-9077-4e78-8f69-b32da7248aee>)

Investigating Materials, Components, Tools And Equipment, Including By Using Digital Technologies, To Discover Their Characteristics And Properties, How They Can Be Used More Sustainably And Their Impact In The Future (ELBT427)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/6961b9f5-4acd-4074-8420-26700fd1f5fa>)

Exploring And Testing Factors That Impact On Design Decisions, For Example Considering The Demographics Of An Area Or The Impact Of Natural Disasters On Design Of Constructed Environments Such As The Structural Design Of Buildings In Japan To Withstand Earthquakes (ELBT287)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/ceb8e442-83cc-43bc-b341-6db3be5cf35f>)

Critiquing Designed Products, Services And Environments To Establish The Factors That Influence The Design And Use Of Common Technologies, For Example The Characteristics That Contribute To Energy Efficient Cooking Such As Wok Cooking; The Suitability And Sustainable Use Of Particular Timbers (ELBT49)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/0f9c53d3-06e1-4a09-acfd-e8ef80492ef9>)

Examining Models To Identify How Forces And Materials Are Used In The Design Of A Toy (ELBT118)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/ae10fac8-e325-4751-9c5d-c508aaf538e9>)

Exploring Ways Of Joining, Connecting And Assembling Components That Ensure Success (ELBT361)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/d093df89-3b8a-40ad-8c2b-491eadec61d0>)

Generating A Range Of Design Ideas For Intended Products, Services, Environments (ELBT174)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/86614c60-bc02-4736-a7d0-aacdf81b1fc>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/ee3ed807-456a-4447-a89f-fb8e6f115cf3>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/a12a5d0e-ad92-4ac3-b48e-911b49a6b530>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/2ed06a48-642c-4ddc-954c-3d34b4e34462>)

Using Appropriate Technologies Terms To Confidently Describe And Share With Others Procedures And Techniques For Making, For Example Cutting And Joining Materials (ELBT65)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/629a4441-c6dc-4cca-bece-df5b582e92cb>)

Exploring Ways Of Joining, Connecting And Assembling Components That Ensure Success, And The Impact Digital Technologies Have Had On These Processes (ELBT250)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/97966d63-f2b3-4d6f-a841-7ee14c4ac447>)

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)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/600213a6-f621-4357-94a8-deecd38305dd>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/6e7e6298-ccaa-4911-87cf-767b57cab33c>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/bb209d3a-ab23-4361-9e82-c210b96ac158>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/e99ee4dc-7243-4d03-b0e3-2be6f2aab3a5>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/f454fc5f-bc28-4ea6-8a61-5250e590a0f5>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/12bd3fde-0ce6-4874-9566-eea4d2ecd1d1>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/953a750f-5101-4d3b-847d-ae69154f076c>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/53cb10ab-bfd3-4f14-8219-32cdbc4fb22>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/ce3e4c15-18c5-4f23-97ab-2acee42e6f17>)

Determining Planning Processes As A Class, For Example Recording A Procedure Or Creating Time Plans (ELBT122)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/4ff3b8d5-3e6b-455a-a8e2-c457f27a8028>)

Managing Time And Resource Allocation Throughout Production, For Example Materials, Tools, Equipment And People (ELBT370)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/30a4da41-0610-4478-be0f-458db6ee4691>)

Identifying The Steps In A Mass Production Process (ELBT457)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/72dbcf7-291d-4e25-b3ab-141aff8d1dc7>)

Sequencing Steps To Collaboratively Produce A Designed Solution (ELBT350)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/bd7d0dc9-2531-4c4e-b4fa-4f3daddf01e3>)

Generate, develop, and communicate design ideas and decisions using appropriate technical terms and graphical representation techniques (ACTDEP015)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/bf39b902-e9bd-4de1-86b3-fdc9ce32928c>)

Select and use materials, components, tools and equipment using safe work practices to make designed solutions (ACTDEP016)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/e1178ae3-500a-47ed-ab5d-baa50990736b>)

Evaluate design ideas, processes and solutions based on criteria for success developed with guidance and including care for the environment (ACTDEP017)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/b1370b5c-6ae3-42d5-a974-b2f33aca49b1>)

Plan a sequence of production steps when making designed solutions individually and collaboratively (ACTDEP018)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/ac91e615-93d6-499c-9f2a-b4da110c21f3>)

Reflecting On The Features Of Designed Solutions That Ensure Safety And Wellbeing Of Users, For Example Smoke Alarms (ELBT355)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/6f4dfc29-1cea-4a6b-a474-4c5c535c5727>)

Evaluating The Sustainability Implications Of Materials, Systems, Components, Tools And Equipment, For Example Materials Can Be Recycled Or Re Used To Reduce Waste; Systems May Benefit Some, But Disadvantage Others (ELBT340)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/8f557b3e-0dc8-4a7b-a3d3-53bc3e12dd86>)

Considering The Impact 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)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/70d8fc58-77c6-4b4b-91c1-7a38c70f0fe3>)

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 (ELBT36)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/3d6cb994-406e-4c20-af14-eda92c1c14d5>)

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 (ELBT351)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/f09f8ec1-ee53-47d2-a75c-4eee65ca123b>)

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)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/d0d772c3-61df-4bbf-9539-730f04eff798>)

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)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/bfc63d43-6361-48da-b617-903a14683cb8>)

Investigating The Properties Of Materials To Solve Problems Requiring The Control Of Movement, Sound Or Light, For Example Directing Light Through A Maze Using Mirrors (ELBT227)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/ad9c3bf4-78ee-4098-b9d7-88d8b2d8f0a4>)

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/2014/09/1f0362b6-52fe-46b7-be66-74b63ae84d6d>)

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/a7bbe5a3-c52a-4604-aced-d406c2160824>)

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 Studios (ELBT56)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/96941601-4339-48a6-86f9-e2e812f36a43>)

Investigating The Technologies In A Control System For An Identified Need Or Opportunity And User, For Example A System That Allows Safe Passage At Pedestrian Crossings (ELBT231)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/e594793e-9b6e-421a-b050-86bde345c3af>)

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-e2a8-446c-8ccb-f7ec2a8ac91c>)

Identifying Ways Of Applying, Conserving And Recycling Nutrients In Food And Fibre 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/2014/09/7bfea907-a98b-44fb-b26f-a127a6b6014a>)

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/a52a10e8-7dc9-40c2-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)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/91086463-103b-4fef-b6bc-ed5359401b54>)

Sequencing The Process Of Converting 'On Farm' Food Or Fibre Products Into A Product Suitable For Retail Sale, That Is, The 'Paddock To Plate' Supply Chain, Or When Making Yarn Or Fabric From Fibre (ELBT444)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/3636ce39-f832-4dc5-9153-1c32f7d2638e>)

Investigating The Use Of Technologies Including Digital Technologies In The Production Of Food And Fibre (ELBT261)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/2bbad284-b448-4030-93aa-7a8f997c52aa>)

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)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/6298d206-2495-4099-b202-fb34a12ec28e>)

Using Current Food Guides And Government Endorsed Food Policies To Plan Food Choices (ELBT155)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/8c8d278a-b55c-4112-812f-b2dfc8603b2c>)

Describing And Using Safety Guidelines For Food Storage And Preparation At Home And School, For Example Use And Care Of Chopping Boards; Methods Of Preparing And Storing Fruits And Vegetables To Ensure Optimum Quality And Nutrient Content (ELBT149)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/df3e76d-7cb0-49ef-8990-b5994b70258c>)

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 Impacts And Nutritional Benefits (ELBT182)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/0130fd3-090e-4cb4-93b6-a2c8b9064005>)

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/f3966b93-326a-45b1-9313-dc9d0f85651d>)

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)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/d050094f-a7e6-49e3-b88c-c46b767ca234>)

Identifying The Properties Of Materials For The Design And Construction Of A Sustainable Household Item, For Example A Product For Storing Harvested Water (ELBT301)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/6935d4f7-6321-406c-8f42-64ab4d6d4659>)

Evaluating The Functional Properties Of A Specific Purpose Household System, For Example A Security System (ELBT349)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/5983f433-c383-4978-9a96-4f420c63791a>)

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, Water Treatment, Garbage Collection (ELBT139)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/edd2125f-ce99-4c58-ab20-bbbec08e4f76>)

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-46be-4bf5-ae08-268536d424cd>)

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/c0a3e511-a5eb-400e-b99f-55b1bb27b473>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/361a3ef8-7e60-4af4-9533-f8a38691b34b>)

Investigate how people in design and technologies occupations address competing considerations, including sustainability in the design of products, services and environments for current and future use (ACTDEK019)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/a62427c6-b36b-4e45-b83d-996b5c90894e>)

Investigate how forces or electrical energy can control movement, sound or light in a designed product or system (ACTDEK020)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/323cc5f3-8671-49a3-8f57-4ba72779432e>)

Investigate how and why food and fibre are produced in managed environments (ACTDEK021)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/87f5c17d-51db-41b7-a2d7-9e11fee4403b>)

Investigate the role of food preparation in maintaining good health and the importance of food safety and hygiene (ACTDEK022)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/b3ab6467-779f-4b29-a309-c28b18b667dd>)

Investigate characteristics and properties of a range of materials, systems, components, tools and equipment and evaluate the impact of their use (ACTDEK023)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/3b9f8830-da95-46f2-ad43-002fc425a90d>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/3ca02564-9519-46fc-b438-eeec11c74fc9c>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/1bf47f61-4046-463c-9528-fc522bdddc8e>)

Identifying The Importance Of Complementary Parts Of Working, Everyday Systems By Deconstructing The Components, Structure And Purpose Of Products, Services Or Environments (ELBT69)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/95651eea-698e-417c-a35e-dee42b90939d>)

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)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/f7955d4f-a1ff-4b70-ab36-433928a1c400>)

Investigating How To Minimise Material Use And Manage Waste By Critiquing The Environmental And Social Impacts Of Materials, Components, Tools And Equipment (ELBT2)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/0e4889d9-1297-47bc-b70a-ff9d32be08b8>)

Generating A Range Of Design Ideas For Products, Services Or Environments Using Prior Knowledge, Skills And Research (ELBT408)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/ecc70bac-4ded-4719-8922-2fe8ac3055fd>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/adb45c63-290a-4731-abb6-99032031ac5b>)

Analysing And Modifying Design Ideas To Enhance And Improve The Sustainability Of The Product, Service, Environment Or System (ELBT365)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/059cdc15-9fbc-4dcd-ad2f-47592878e0ea>)

Representing And Communicating Design Ideas Using Modelling And Drawing Standards Including The Use Of Digital Technologies, For Example Scale; Symbols And Codes In Diagrams; Pictorial Maps And Aerial Views Using Web Mapping Service Applications (ELBT364)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/b45f775a-3a31-4e00-80e6-4876549184f2>)

Experimenting With Materials, Tools And Equipment To Refine Design Ideas, For Example Considering The Selection Of Materials And Joining Techniques To Suit The Purpose Of A Product (ELBT267)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/6b897f57-6cba-4870-93e0-78ef6a957b77>)

Matching Material And Joining Techniques To The Design Intention, For Example Accurately Cutting And Sewing The Fabric Pieces To Make A Community Banner Or Joining Components To Produce An Electric Circuit (ELBT398)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/584313ca-a299-405a-bea0-378ff0c21759>)

Working Safely, Responsibly And Cooperatively To Ensure Safe Work Areas, For Example The Safe Use Of Equipment When Making A Water Resistant, Floating Craft Or A Model Of An Environmentally Sensitive Outdoor Shelter (ELBT27)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/7b61b9e2-0c45-4d5c-8c56-f2f1151c7d86>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/ead2ce71-6d9b-47ef-beeb-4362bd5975a9>)

Manipulating Materials With Appropriate Tools, Equipment And Techniques, For Example When Preparing Food, Cultivating Garden Beds, Constructing Products (ELBT357)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/46e13eed-0f3d-44dc-b5a8-4b5180e53aec>)

Independently And Collaboratively Identifying Criteria For Success, Processes And Planning, For Example Using Visual Representations Such As A Flowchart (ELBT297)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/67e1cd1d-cb6d-447a-9275-67af6fa70de8>)

Evaluating The Suitability Of Materials, Tools And Equipment For Specific Purposes (ELBT176)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/b61a99c5-795d-48a0-89b8-a93ed3654796>)

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)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/790ce14b-599c-49e4-8264-1f195fd1d11a>)

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)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/30edeabf-e43f-48ef-9b14-1c4f9fae7ac9>)

Evaluating Products, Services And Environments From A Range Of Technologies Contexts With Consideration Of Ethics And Sustainability (ELBT324)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/e8b18c25-8494-46f4-8edf-5bf9e35e6113>)

Examining The Essential Features Of Existing Processes To Inform Project Planning Including Safe Work Practices That Minimise Risk (ELBT225)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/9c675bfc-0f22-4fe3-a4ee-8a2d60e05f90>)

Setting Milestones For Production Processes And Allocating Roles To Team Members (ELBT268)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/87878c78-ed26-4990-97de-76c04472692d>)

Identifying When Materials, Tools And Equipment Are Required For Making The Solution (ELBT165)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/872ce6b5-deb1-4b49-9af5-b02fcdcb8ddd>)

Outlining The Planning And Production Steps Needed To Produce A Product, Service Or Environment Using Digital Technologies (ELBT143)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/a5b5d5fd-d72c-4d06-a01a-b7977bcffbf>)

Reflecting On Planned Steps To See If Improvements Can Be Made (ELBT392)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/b14f533a-5986-46c6-80ab-398cfb567a88>)

Critique needs or opportunities for designing, and investigate materials, components, tools, equipment and processes to achieve intended designed solutions (ACTDEP024)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/ba61fd1b-b7ed-4d58-8cb0-b7dd0dca64f9>)

Generate, develop, communicate and document design ideas and processes for audiences using appropriate technical terms and graphical representation techniques (ACTDEP025)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/8abf34c6-43f0-48c4-a26b-5c673f37cbf0>)

Apply safe procedures when using a variety of materials, components, tools, equipment and techniques to make designed solutions (ACTDEP026)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/4bf5ec16-d3fe-46a8-a2a6-7495e977c1d7>)

Negotiate criteria for success that include consideration of sustainability to evaluate design ideas, processes and solutions (ACTDEP027)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/26e94f5b-d29b-4364-aae9-475bf157aad1>)

Develop project plans that include consideration of resources when making designed solutions individually and collaboratively (ACTDEP028)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/648ab0a9-fcc2-4b35-9ad8-fad594b56609>)

Design and Technologies Knowledge and Understanding
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/3cc7d0e3-0204-4e73-89de-90b39bca75df>)

Design and Technologies Processes and Production Skills
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/180e9771-f4e6-4153-9a91-75d144cc424e>)

Years 5 And 6 Achievement Standard
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/9f5b49a0-54cd-4872-be6d-839ba272b9b2>)

Considering Factors That Influence The Selection Of Appropriate Materials, Components, Tools And Equipment, For Example Aboriginal And Torres Strait Islander Peoples' Sustainable Practices, Custodianship And Connection To Country (ELBT420)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/1fa2e586-cd89-4d73-85fd-27b37b6f7989>)

Investigating How Ethics, Social Values, Profitability And Sustainability Considerations Impact On Design And Technologies, For Example Animal Welfare, Intellectual Property, Off Shore Manufacturing In Asia (ELBT109)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/3c9ea2a4-b24e-45e6-a659-ca1b2e3d07fe>)

Analysing An Environment To Decide If It Meets Personal Or Community Needs, For Example Consulting With Family Members When Designing An Enhancement To An Indoor Or Outdoor Home Environment (ELBT228)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/64a9da8e-82af-42a3-a88b-88aed644621b>)

Critiquing Competing Factors That Influence The Design Of Services, For Example A Natural Disaster Warning System For A Community (ELBT39)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/be9d7265-64ab-4ebc-8e89-ecbf549dc727>)

Investigating The Ethics Of Using Surveillance Systems While Balancing Privacy, Security And Safety Concerns (ELBT73)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/4910eae3-2cec-48b3-91f9-dddb962e2338>)

Exploring How Products And Services Have Changed Over Time And Predicting Future Developments, For Example Home Entertainment, Communications Or Food Packaging (ELBT305)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/b3f76cac-96f7-4a01-8eff-6387ed4aafc3>)

Considering The Rights And Responsibilities Of Those Working In Design And Technologies Occupations, For Example Consideration Of Aboriginal And Torres Strait Islander Protocols (ELBT317)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/e78875f7-fb33-4447-99be-5f14f31d8443>)

Exploring The Use And Development Of Systems For Navigating Unfamiliar Environments, For Example A Service To Help Tourists Engage With A Heritage Area (ELBT362)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/89e26ef9-b75b-44eb-8e80-48d42a060415>)

Investigating Traditional And Contemporary Design And Technologies, Including From Asia, And Predicting How They Might Change In The Future In Response To Factors Such As Social Change And The Need For More Sustainable Patterns Of Living (ELBT389)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/f71aca5a-e5e6-427c-9449-3ab4372db83a>)

Identifying Needs And New Opportunities For Design And Enterprise, For Example Promotion And Marketing Of Designed Solutions (ELBT170)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/41f30d42-8491-40a9-b417-acbe9056f73f>)

Investigating How Developments In Materials, Tools And Equipment Influence Designed Solutions (ELBT141)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/5b833dbb-317f-4be3-9047-b9cce8864918>)

Investigating Influences Impacting On Manufactured Products And Processes Such As Historical Developments, Society, New Materials, Control Systems And Biomimicry, For Example The Development Of Velcro (ELBT465)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/5b22bd41-50db-44ba-9120-0e1e277eb419>)

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)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/ac392a25-0647-493e-bd2d-57029511fbc5>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/2fb18935-a01f-4b1b-966e-9310d4771baf>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/db99cd3d-7e93-47db-86e7-009a4401f799>)

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)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/6f41e0ea-afa1-4e61-be46-e90449889258>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/38bd970e-174f-4e65-9570-5da075af2a5f>)

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 (ELBT310)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/b12791f2-2073-49bf-95ec-61cd3c0eebc1>)

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)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/adc5f62c-1661-4f33-8618-dc7aa9124141>)

Recognising The Need To Increase Food Production Using Cost Efficient, Ethical And Sustainable Production Techniques (ELBT216)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/567b50bf-8f99-41f5-9b72-8edea30e3e18>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/7e54f2b1-5a53-4613-be54-185f2c7c786c>)

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)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/969f00d8-2d3b-4afe-b630-f4f85a4f556b>)

Recognising The Importance Of Food And Fibre Production To Australia's Food Security And Economy Including Exports And Imports To And From Asia When Critiquing And Exploring Food And Fibre Production (ELBT319)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/1715de2e-6dd9-428f-94ba-5e820d5e8f8c>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/8f4486ff-ab3c-40a5-9e42-4cb6c4e6597c>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/653dc35a-2fd3-4aa0-8a90-72837db1c8a7>)

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 (<http://rdf.australiancurriculum.edu.au/elements/2014/09/79fe2584-20a0-4d78-b6b2-509b9656e794>)

Analysing 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)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/704e76ab-90ff-465f-8ff9-bc56523de807>)

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)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/d1b5a042-87b5-40b2-bdb7-1b1950d260d2>)

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)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/2864f199-f647-4416-a325-1d76f87b0ba3>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/c7e60fe3-d876-405a-b815-97a11bf88e31>)

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 (ELBT14)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/b88ef556-1c2c-49bf-b479-fa5ddae72725>)

Considering Safe Work Practices, For Example Producing A Safety Information Video That Details Risk Management Practices For Using A Piece Of Equipment In The Classroom Or Within A Community (ELBT148)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/574fbbc9-a902-40d9-98ac-b5cecb3431cb>)

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)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/07202294-16be-4325-9567-28b2d474fd12>)

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)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/ba163476-39f5-41b2-b75c-f8c277e32fa7>)

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)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/ef67d508-37ae-49d7-9bb8-728f8fe17f50>)

Investigate the ways in which products, services and environments evolve locally, regionally and globally through the creativity, innovation and enterprise of individuals and groups (ACTDEK030)

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/fd0fad5f-4503-44bf-bf8c-559b60405e5d>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/8efb09c2-0424-42fa-bddf-1d417d016e71>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/b74dc931-d470-4c96-ac50-7dfe9c499aa0>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/d9291bc7-6196-4627-bc9f-f5f2d505cbc0>)

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

link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/1d6d88da-6544-471f-893f-7cd5a92b4f95>)

Considering Community Needs When Identifying Opportunities For Designing, For Example Gardens For A Community Centre, Cost Effective Food Service For A Sport Club (ELBT130)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/6b74570e-7014-41f7-a59b-c18038b4c321>)

Experimenting With Traditional And Contemporary Technologies When Developing Designs, And Discovering The Advantages And Disadvantages Of Each Approach (ELBT390)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/afe635f6-f224-4664-b3c0-3a26fc2151f5>)

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)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/bf839e7e-8e42-4e70-950d-cbc47b977d7a>)

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)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/93a9c41d-414b-4d6b-9ed0-8a5f5dfff425>)

Evaluating The Viability Of Using Different Techniques And Materials In Remote, Isolated Areas, Or Less Developed Countries (ELBT194)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/ff2940cb-3f2e-4365-a014-9c5dd4ad6c21>)

Selecting Appropriate Materials To Acknowledge Sustainability Requirements By Using Life Cycle Thinking (ELBT280)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/c5ec3b13-7f35-4999-86a1-727f3dedb20c>)

Using A Variety Of Critical And Creative Thinking Strategies Such As Brainstorming, Sketching, 3 D Modelling And Experimenting To Generate Innovative Design Ideas (ELBT339)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/c8bb944c-887b-4c02-9429-543dc9d3b4c8>)

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 (ELBT129)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/99f61661-4351-4acc-bafa-c1868bb03c90>)

Identifying Factors That May Hinder Or Enhance Project Development, For Example Intercultural Understanding (ELBT460)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/b25e1045-8674-4097-82b9-11efb6e47c68>)

Developing Models, Prototypes Or Samples Using A Range Of Materials, Tools And Equipment To Test The Functionality Of Ideas (ELBT178)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/13803ff3-296b-4d8d-8e87-a82b84625f90>)

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 (ELBT373)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/244267a7-6b19-4d78-99d9-43bf3994de40>)

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 (ELBT296)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/3a40a0b7-ec3a-47df-b4bd-6905260cbb20>)

Developing Technical Production Skills And Safe Working Practices With Independence To Produce Quality Solutions Designed For Sustainability (ELBT277)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/aa3aa439-6c7d-462d-859a-731bcd5f2e22>)

Practising Techniques To Improve Expertise, For Example Handling Animals, Cutting And Joining Materials (ELBT439)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/f977d219-1a5a-4df6-97a8-1e068f5bf9a0>)

Identifying And Managing Risks In The Development Of Various Projects, For Example Working Safely, Responsibly, Cooperatively And Ethically On Design Projects, Assessing Uncertainty And Risk In Relation To Long Term Health And Environmental Impacts (ELBT432)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/607d892e-942c-4a3b-8d80-2449a2908725>)

Developing Innovative Ways Of Manipulating Technologies Using Traditional And Contemporary Materials, Components, Tools, Equipment And Techniques And Considering Alternatives Including Emerging Technologies That Could Be Substituted To Reduce Waste Or Time (ELBT31)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/7b6578b5-2dc1-45f6-82f8-ef5132769a28>)

Developing Criteria For Success To Assess The Success Of Designed Solutions In Terms Of Aesthetics, Functionality And Sustainability (ELBT192)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/e22fe543-a4e5-4040-87fc-9d854d3b21cd>)

Considering How To Improve Technical Expertise (ELBT273)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/430a8003-0650-413a-9a7f-747ac62122ab>)

Evaluating Designed Solutions And Processes And Transferring New Knowledge And Skills To Future Design Projects (ELBT88)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/28942734-e9f2-4ab5-8fe1-d6f5870e885d>)

Explaining And Interpreting Drawings, Planning And Production Steps Needed To Produce Products, Services Or Environments For Specific Purposes (ELBT54)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/92c3085a-5aa5-4a9b-8a96-e6e714b282c3>)

Organising Time, Evaluating Decisions And Managing Resources To Ensure Successful Project Completion And Protection Of The Work Space And Local Environment (ELBT86)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/b11dfa31-a163-40df-8e0a-d7cae4b9110d>)

Identifying Risks And How To Avoid Them When Planning Production (ELBT473)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/c98233f2-357b-44cb-8ac0-08606fd33d2a>)

Investigating The Time Needed For Each Step Of Production (ELBT11)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/afa74b73-f3d6-42bc-a7ed-fb7c8947caf6>)

Critique needs or opportunities for designing and investigate, analyse and select from a range of materials, components, tools, equipment and processes to develop design ideas (ACTDEP035)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/a91db062-7138-47bf-a24b-66f0ea527804>)

Generate, develop, test and communicate design ideas, plans and processes for various audiences using appropriate technical terms and technologies including graphical representation techniques (ACTDEP036)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/c4bdda3d-e427-46e6-bb42-7d45f2627231>)

Effectively and safely use a broad range of materials, components, tools, equipment and techniques to make designed solutions (ACTDEP037)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/c66da6f7-72ff-4c7e-af71-65f238e772ce>)

Independently develop criteria for success to assess design ideas, processes and solutions and their sustainability (ACTDEP038)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/8cd20ac6-629b-4924-9ab4-217f842eb108>)

Use project management processes when working individually and collaboratively to coordinate production of designed solutions (ACTDEP039)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/bf511b4d-2edc-42cb-b334-198ef958df5c>)

Design and Technologies Knowledge and Understanding
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/815bf7ae-41cb-4756-98d8-42fe2ea9c86d>)

Design and Technologies Processes and Production Skills
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/a398642d-2d4d-41fd-acab-77884f22c4cf>)

Years 7 And 8 Achievement Standard
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/4379b504-5c72-4d32-bc0b-da97e70d95e9>)

Years 5 and 6
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/8e38e7e4-cfe4-4788-8773-2ec484acb25>)

Years 7 and 8
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/948db26a-2f27-4a89-bf76-aa58ef0ffce8>)

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/2014/09/9f01406a-660e-47eb-a3db-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/ef5b0dcc-be08-4303-b54d-9e4600a2537f>)

Creating A Two Dimensional Shapes From Verbal Or Written Instructions (ELBM156)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/48a10b18-47e0-477c-8eeb-9e4600a2537f>)

Compare the areas of regular and irregular shapes by informal means (ACMMG087)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/de52a58e-56a5-44f1-b4a6-9e4600a2537f>)

Compare and describe two dimensional shapes that result from combining and splitting common shapes, with and without the use of digital technologies (ACMMG088)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/0341dd32-cf8d-4fa5-a847-9e4600a2537f>)

Shape
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/014de2da-3660-46a0-8e19-9e4600a2537f>)

Achievement Standard
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/ea6eff8e-8eac-42fc-bd9d-9f7f00cc9e65>)

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)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/874268ef-2b73-45cc-8928-9e4600a25347>)

Representing Two Dimensional Shapes Such As Photographs, Sketches And Images Created By Digital Technologies (ELBM194)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/4d2e56ba-0b2e-4bc4-9937-9e4600a25347>)

Connect three-dimensional objects with their nets and other two-dimensional representations (ACMMG111)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/89f91772-11b8-42ad-879b-9e4600a25347>)

Shape
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/de99e528-c4f4-434d-b7b8-9e4600a25347>)

Designing A School Or Brand Logo Using Transformation Of One Or More Shapes (ELBM524)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/74831b79-4015-4c94-8757-9fb900e541a6>)

Understanding That Translations, Rotations And Reflections Can Change The Position And Orientation But Not Shape Or Size (ELBM525)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/b194416c-76e5-4fc8-9bf3-9fb900e541a6>)

Investigate combinations of translations, reflections and rotations, with and without the use of digital technologies (ACMMG142)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/541f0536-394b-45a2-9091-9e4600a2537a>)

Using Aerial Views Of Buildings And Other 3 D Structures To Visualise The Structure Of The Building Or Prism (ELBM277)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/ab4d0007-e13f-4d10-86be-9e4600a25350>)

Draw different views of prisms and solids formed from combinations of prisms (ACMMG161)
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/8c499827-f512-44e5-8fb6-9e4600a25350>)

Shape
link (<http://rdf.australiancurriculum.edu.au/elements/2014/09/b42bdc0a-6426-4eea-9363-9e4600a25350>)