

Technology Unit Plan Term 3

Context for Learning: Food-Sustainability (Fruits in school)		Class: Room 24	Level: 2/3
Curriculum Area(s): Technology		Duration: 10 weeks	
Technological Practice Brief development Planning for practice Outcome development and evaluation	Nature of Technology Characteristics of technology Characteristics of technological outcomes	Technological Knowledge Technological products Technological modeling Technological systems	Context Knowledge or Skill
Global learning intention(s): "How do food choices affect our life?" "Produce a possible garden plan that identifies attributes which will guild what you're going to produce." "Using a range of information create a plan for the production of your outcome." "Carry out an evaluation to see if your outcome (Garden plan) will work."			
Diagnostic assessment (to find out what students know): Cause and Effect chart in booklet – suggested solutions to the brief problem			

Cross curricula integration: will contribute to children’s understandings to enhance their technological practice (Making their planting plan)

Science

Living World-Ecology

- Explain how living things are suited to their particular habitat and how they respond to environmental changes, both natural and human-induced.

Mathematics

Geometry & Measurement

Position and orientation

- Use a co-ordinate system or the language of direction and distance to specify locations and describe paths.

Measurement

- Use linear scales and whole numbers of metric units for length, area, volume and capacity, weight (mass), angle, temperature, and time.

Social Studies (Teacher note: cultural comparison Maori/Samoan classes)

- Understand how people view and use places differently.
- Understand how people make decisions about access to and use of resources.

Health

- Plan and implement a programme to enhance an identified social or physical aspect of their classroom or school environment.

English

Ideas (Listening, Reading and Viewing)

- Show a developing understanding of ideas within, across, and beyond texts.

Language Features

- Show a developing understanding of how language features are used for effect within and across texts

Ideas (Speaking, Writing & Presenting)

- Select, form, and communicate ideas on a range of topics.

Groups (based on diagnostic assessment prior to unit. This could be prior knowledge of context or based on previous assessment data e.g. Tech Practice):

Assessment tasks:
Garden Plan using the Rubric as an assessment

Key Competencies: (Identified in relation to the context being taught)

Thinking, Relating to Others, Understanding symbols language and texts, Managing Self, Participating and Contributing

<p>Provision for diversity: CWSN</p> <ul style="list-style-type: none"> • Visual, oral & written work support, buddy system 	<p>CWSA</p> <ul style="list-style-type: none"> • Opportunities to work independently (Inquiry) 	<p>ESOL Peer Support, teacher support,</p> <ul style="list-style-type: none"> • Oral language, visual language supports.
<p>Suggested learning sequence</p> <ul style="list-style-type: none"> • Introduction to the brief • Identification of the need/s • Suggest solutions for the need/s • Cause and Effect timeline produced • Question experts • Read information, and use mathematical problem solving skills to enhance ideas about designing a plan • Formulation of concept garden plan • Evaluation 	<p>brief stakeholder cause effect technology fruit vegetables</p>	<p>Vocabulary</p> <p>identify vocabulary concept design attributes negative measure/ment</p> <p>rotate geometry rubric symmetry grid</p>

Learning Intention & Learning Area	Success Criteria	Teaching and Learning Experiences	Exemplars to be used	Notes to inform planning
WALT:				
English Read and understand the vocabulary connected with a design brief.	<ul style="list-style-type: none"> Locate difficult words Find meanings in the dictionary Record definitions Re-read the text to fully understand the text 	Intro: Design Brief - Read and unpack vocabulary	Refer to design brief in Booklet	Teachers to introduce broad context (global learning intention) and brief to classes
Technology Identify a need in the community and the effects of it.	<ul style="list-style-type: none"> Discuss possible problems of fruit being phased out of schools. Write 3 problems using a cause and effect chart Write possible solutions to the identified problems 	Peer discussion and brainstorm of possible problems/effects on the community from fruits being removed from the school. "What are the negative effects on the community of fruit being removed from schools?" "What are some possible outcomes of this?" <i>For example, fruits are healthy for us and they are being taken away– children might bring in pies and lollies instead.</i> Complete a cause and effect chart.	See Booklet - First Cause and Effect chart	
Technology Identify a negative effect from an action, and record possible solutions for this.	<ul style="list-style-type: none"> Identify one negative outcome of fruit being removed from school Discuss possible solutions to this problem with a partner Record three possible solutions to this problem. 	Refer back to the brief and discuss possible solutions to one negative effects of removing fruits from schools. Complete a cause and effect chart of what kinds of solutions they could have to the problem. Give a reason why.	See Booklet - second Cause and Effect chart.	
English Skim and Scan for key words and information Identify verbs within a text to assist with understanding a concept planning process.	<p>Concept Plan (with a partner)</p> <ul style="list-style-type: none"> Read a copy of a concept plan Identify & highlight verbs in the text needed for a plan <p>Sequencing Activity (with a partner)</p> <ul style="list-style-type: none"> Read the different parts to the jumbled concept design plan Discuss and move the different phases to where you think they might go. Check to see if my sequencing is correct. 	Immersion: View design concepts on the web (for example) urbanlands.co.nz Use a copy of a concept plan (for example the Kirsten Sach Landscapes web page), and identify key verbs (actions) needed to create a plan. Complete the concept design plan sequencing activity.	http://urbanlands.co.nz/landscape/index.php?option=com_content&task=view&id=30&Itemid=48 http://www.kirstensachlandscapes.com/ http://www.landscapedesign.co.nz/land_images_cust/download6733452.pdf	Print off enough copies for one between two students.

	<ul style="list-style-type: none"> Identify & highlight verbs in the text needed for a plan 	Reveal the correct order for the concept plan and highlight verbs.	Design Sequencing activity http://www.kirstensachlandscapes.com/ / (Design Process)	
<p>Technology (Brief development) Explain the outcome we will produce.</p> <p>Describe the attributes needed for a good plan.</p>	<ul style="list-style-type: none"> in a group of 4 students. create a list of key learning you may need to complete the brief. report back to the class your groups findings. cross off any ideas that have been read out by other groups. read out ideas that other groups have not come up with. 	<p>(Unpacking the brief) As a class, or in small groups, students will need to identify and list what learning they will possibly need to complete the brief using the "Things to Consider" in the brief as a guide.</p>	Refer to the Brief – In booklet	Teacher takes sheets from each group and type ideas with a large font for the next activity.
<p>Technology (Planning for practice) Develop a plan that identifies what needs to be done, and the resources needed to carry out the plan.</p>	<ul style="list-style-type: none"> talk about, and give ideas to assist with planning our brief name resources that could assist with carrying out our brief. record ideas during discussions. decide which order they should go in. record ideas using a flow chart resource. share ideas with the class complete a flow chart on my own. 	<p>In a numbered heads activity, (number children off 1-4 in a group so that they take turns to share their ideas) use the list from the above activity as a basis for a discussion for a dice task. Each group member takes a turn to roll the dice and talk about their ideas for each particular roll. From this, create a class flow chart, then sequence into a timeline.</p> <p>Use a Flow chart Action Plan to document independent learning and any extra ideas they might come up with.</p>	<p>Use dice template</p> <p>Booklet – Flow Chart Action Plan</p>	<p>Teacher needs to model how to record using a flow chart (can be introduced prior to unit)</p> <p>Teachers to make up dice prior to lesson</p>
<p>English, Science build vocabulary to help us understand what we read.</p>	<ul style="list-style-type: none"> think about what fruits and vegetables you have seen at the market. Share your ideas with a partner. Join with, and share your ideas with another pair (Four altogether). Record ideas and share with the class. 	<p>Think, Pair, Share activity. "What fruit/vegetables have you seen at the market?"</p> <p>Categorise fruit/vegetables using a Venn Diagram. Question Starters: "Why do you think these foods fit under this category? " "What makes a fruit and fruit and a vegetable a vegetable?"</p>	Booklet - Venn Diagram template	<p>Class modelling first, pairs with different foods e.g. sweet & savoury, then complete Venn diagram booklet activity.</p> <p>Can use bilingual (Samoan or Maori) words</p> <p>Record fruits onto card, ready to manipulate for future sessions.</p>

<p>English Use what we know about fruit and vegetables to design and make a simple board game</p> <p>ICT/Mathematics (Geometry) Use translation and rotation to map one object onto another</p>	<ul style="list-style-type: none"> In pairs or individually, design a plan for a board game using a shape/s that can flip and rotate. Create trivia cards that focus mainly on the Samoan/Maori translation of fruit and vegetables. Number the pathway. Come up with a name for your game. Write simple instructions for how to play the game. 	<p>Design and make a Fruit / Vegetable Board Game for ESOL students (Vocabulary)</p> <p>Share examples of board games with the children to give them ideas for their board games.</p>	<p>Use the paint programme to flip and rotate images</p>	<p>Bilingual word game for children to use in the classroom and developed during class time. Can be printed off and used with another class. (This is a language activity, not part of their technological outcome).</p> <p>Can also use light card to flip and rotate physically to design a board game.</p>
<p>English (Reading) Identify that texts have a specific purpose.</p>	<ul style="list-style-type: none"> Collate and record information using a grid. 	<p>Read seed packets and record what season they can be planted, the time taken for each plant to grow, and how much fruit/vegetables it could produce.</p> <p>"From reading seed packets, what have I discovered?"</p>	<p>Booklet – grid for recording seed packet information</p> <p>Need a range of seed packets for students to read.</p>	
<p>English/Technology Use information about what we have learnt to inform our brief.</p>	<ul style="list-style-type: none"> In season groups (Winter, Spring, Summer, Autumn) use information gathered from the seed packets to make a list of which fruits/vegetables could be planted during a particular season. Write a statement which gives reasons why you have chosen particular foods to grow during that season. 	<p>Split the children into four seasons groups (Winter, Spring, Summer, Autumn) and decide which fruits/vegetables will suit our brief's purpose (give reasons).</p>	<p>Booklet – reasons why you have chosen particular foods to grow during this season for our purpose.</p>	
<p>English Ask specific questions to find information relevant to our brief.</p> <p>Mathematics-Geometry & Measurement (Position & Orientation) Identify areas we could use for our plan to take place.</p>	<ul style="list-style-type: none"> In the four groups, brainstorm open and closed questions to ask the property manager about where we can plant trees, and fruit and vegetable crops. Use a map of the school to identify and highlight areas where we can plant. Create a key for the highlighted areas Have a title for the map 	<p>Interview the Property Manager to discover which areas can be used for planting.</p>	<p>Booklet - school map</p>	<p>Set up an interview with the School Property manager prior to this lesson.</p> <p>Use a school map to show areas that can be utilised for planting.</p>

<p>English (Reading) identify that texts have a specific purpose.</p> <p>Skim and scan for information.</p> <p>Record key information and ideas.</p>	<ul style="list-style-type: none"> • Read a variety of planning design articles/texts. • Use dot jot note taking to record important facts and information about what good plans need. • Write a list of what a plan needs. 	<p>Students read a variety of texts around how to create a plan.</p> <p>Write a list of specific plan of requirements and why they are needed.</p>	<p>Booklet – Plan requirements</p> <p>Connected 2 2010 (Gardens with an edge-raised garden)</p> <p>Connected 2002 Number 3 “Grow your own ferns” & “Hukanui: Enviroschool”</p> <p>2005 Number 2 “Room 5’s Amazing Meeting Seating”</p> <p>Connected 2008 Number 3 “Planning a Playground”</p>	<p>Source the connected 2010 resource.</p>
<p>Mathematics (Measurement & Geometry) use linear scales, length & co-ordinate systems to practice skills that will assist with our final plan.</p>	<ul style="list-style-type: none"> • Work either with a partner or independently. • Read and conduct mathematical investigations using figure it out challenges. • Use geometry, measurement and number knowledge to solve problems based on planning ideas. 	<p>Students complete a variety of measurement and geometry activities to support technological planning. (See Figure it out support material).</p>	<p>Figure it Out Geometry, Level 3 “Room with a view”</p> <p>Figure it Out Geometry, Levels 3-4 “Around the School”</p> <p>Figure it out Measurement, Level 3 “Cut it Out”, “Growth Industry” & “School Sculpture”</p>	<p>Use Figure it Out resources to assist with the idea of creating a plan.</p> <p>The mathematics is used to support the technology when the students create their own garden planting plans. Can be used during numeracy time or put into independent boxes.</p>
<p>Technology (Outcome Development and Evaluation) Draw a plan with a scale, using information we have acquired.</p> <p>Mathematics (Measurement & Geometry) Measure and use co-ordinates to specify locations of objects</p>	<ul style="list-style-type: none"> • In seasons groups, use measurement equipment to find the length and width of the school garden. • Use these measurements to work out the area of the garden. • Use a ruler for straight lines. • Use a cm or mm scale to draw out a grid for a planting plan. • Use collated information from seed packets to decide how far apart on the plan the fruit and vegetables need to be placed. • Use a key to show where fruit/vegetables are going to be placed. • Have a title for the plan. 	<p>In groups of 4-6 students, find the measurements of the school garden (Length, Width & Area) to assist with designing a planting plan that uses a scale.</p>	<p>Booklet – planning & Task specifications</p> <p>SEE RUBRIC (In booklet) and refer to Success Criteria for this task</p>	<p>Refer back to brief</p> <p>Can be done using a computer programme or sketched.</p>

	<ul style="list-style-type: none"> • Make sure the plan is clearly labelled and is large enough to read clearly. 			
WALT reflect on our learning to identify what changes could be made to improve our plan for future actions.	<ul style="list-style-type: none"> • Share and ask a buddy to assess your plan using the technology rubric. • Read the technology rubric and highlight where you think you are under each section. • Complete a self assessment sheet that identifies what you could have changed to make your plan better and what your next learning steps are. 	Reflection – self & peer assessment for garden plan based on Rubric.	<p>Booklet – Copy of 3 rubrics for peer, self and teacher assessment.</p> <p>Booklet-Self assessment sheet for possible improvements and next steps for the plan.</p>	Students may need scaffolding with the rubric if using for the first time.
Suggested Follow Up Task: Follow through with plan and source community for assistance with planting, and expert advice.				