

Waitaki Valley TECHNOLOGY UNIT PLAN Levels Three and Four

Term: 2/3

Year: 7&8

Class: Mahutonga

Topic: School playground design

SITUATION: The school has decided to upgrade the school grounds.

TECHNOLOGICAL AREAS: Designing and developing material outcome

CONTEXTS: School Recreational Community The school playground

TECHNOLOGICAL PRACTICE – Level 3 Students will:

Planning for practice

- Undertake planning to identify the key stages and resources required to develop an outcome. Revisit planning to include reviews of progress and identify implications for subsequent decision making.

Brief Development

- Describe the key attributes that enable development and evaluation of an outcome.

Outcome development and evaluation

- Investigate a context to develop ideas for potential outcomes. Trial and evaluate these against key attributes to select and develop an outcome to address the need or opportunity. Evaluate this outcome against the key attributes and how it addresses the need or opportunity.

TECHNOLOGICAL KNOWLEDGE – Level 3 Students will:

Technological modelling

- Understand that different forms of functional modelling are used to inform decision making in the development of technological possibilities and that prototypes can be used to evaluate the fitness of technological outcomes for further development.

NATURE OF TECHNOLOGY – Level 3 Students will:

Characteristics of technology

- Understand how society and environments impact on and are influenced by technology in historical and contemporary contexts and that technological knowledge is validated by successful function.

Characteristics of technological outcomes

- Understand that technological outcomes are recognisable as fit for purpose by the relationship between their physical and functional natures.

TECHNOLOGICAL PRACTICE – Level 4 Students will:

Planning for practice

- Undertake planning that includes reviewing the effectiveness of past actions and resourcing, exploring implications for future actions and accessing of resources, and consideration of stakeholder feedback, to enable the development of an outcome.

Brief Development

- establish a conceptual statement that communicates the nature of the outcome and why such an outcome was developed Describe the key attributes identified in stakeholder feedback, which will inform the development of an outcome and its evaluation.

Outcome development and evaluation

- Investigate a context to develop ideas for feasible outcomes. Undertake functional modelling that takes account of stakeholder feedback in order to select and develop the outcome that best addresses the key attributes. Incorporating stakeholder feedback, evaluate the outcome's fitness for purpose in terms of how well it addresses the need or opportunity.

NATURE OF TECHNOLOGY – Level 4 Students will:

Characteristics of technology

- Understand how technological development expands human possibilities and how technology draws on knowledge from a wide range of disciplines.

Characteristics of technological outcomes

- Understand that technological outcomes can be interpreted in terms of how they might be used and by whom and that each has a proper function as well as possible alternative functions.

Conceptual Statement

The school is redesigning the entire playground and we have an opportunity to design possible outcomes.

VALUES		KEY COMPETENCIES	
Great		Using Language, Symbols and Texts	
Respect	✓	Managing Self	
Engagement	✓	Relating to Others	
Aiming High		Participating and Contributing	✓
Good Friends		Thinking	✓

LEARNING (ICT)		OTHER CURRICULUM LINKS	
Publisher/Excel/PowerPoint	✓	Mathematics and Statistics	✓
e-mail/Fax/Phone/Scan		Science	
Internet-Research	✓	Social Sciences	
Digital Camera/Video	✓	Technology	
Internet – Webquests and Web 2.0		The Arts (Music/Dance/Drama/Visual)	✓
Video Conferencing		Health and Physical Education	✓
Computer/Word Processing	✓	Learning Languages (Te Reo etc)	
Programming		English EOTC	

Indicators of Progressions

ACTIVITIES/RESOURCES

(What will I do to help my students achieve this?
Strategies/activities linked to Key Competencies to help students achieve)

BDL3

Describe attributes for the outcome and identify those which are key for the development and evaluation of outcome

BD L4

establish a conceptual statement that communicates the nature of the outcome and why such an outcome should be developed

establish the key attributes for an outcome informed by stakeholder consideration

communicate key attributes that allow an outcome to be evaluated as fit for purpose

P4P L3

identify key stages, and resources required, and record when each stage will need to be completed to make sure an outcome is completed

explain progress to date in terms of meeting key stages and use of key resources, and discuss implications for what they need to do next

MS

Looking at our school environment... What do you like/dislike about the playground?
(PMI) class discuss
If you could plan a new playground, what would you have? (small groups) discuss positives and negatives and why.
Stakeholder (students, staff, BOT, MoE)
revisit knowledge of attributes
-poster playground attributes

email Deidre re BOT meeting

Construct timeline (research, design, modelling, present to BOT)
What do we need to do first/last?

Who are stakeholders?
What are the time constraints?
Who do we need to communicate with?