

Elective Unit Plan

Aim

For students to continue to develop an understanding that buildings affect our environment, gaining the knowledge to make individual and group decisions for environmental change.

NB: This is the fourth year of planning.

For students to review and extend the planning and design of the internal, external and landscaping features of our eco-classroom to collectively pass to the architect for final plans ready for building in 2009.

Essential Learning Areas

Science, Technology and Social Sciences

Level: Year 3

Duration: 10 Weeks

Curriculum Achievement Objectives

Technological: Planning for practise

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.

Social Sciences

Understand how people view and use places differently.

Science: Participating and contributing

Use their growing science knowledge when considering issues of concern to them. Explore various aspects of an issue and make decisions about possible actions.

Key Competencies

Thinking

Using creative, critical and metacognitive processes to make sense of information.

Relating to others: interacting effectively with a diverse range of people in a variety of contexts.

Participating

Actively involved in our school community.

Specific Learning Outcomes

At the conclusion of this unit, students will be able to:

- communicate and present ideas, opinions and researched data to a range of audiences.
- work co-operatively with others when developing 'pool of knowledge' and 'action planning'.
- question to clarify understanding.
- record and collate ideas in a format suitable for a wide age range audience.
- discuss and transfer individual lifelong skills that promote environmental change.
- identify decisions made that can influence change.

Differentiated Learning Needs

- Students with prior knowledge sharing key concepts and processes.
- Small group learning.
- Varying learning styles.

Values Explored

Excellence, innovation/inquiry and curiosity; community and participation for the common good; ecological sustainability, integrity and respect.

Digital Learning Opportunities

PowerPoint presentations, report presentation and digital booklets.

Integrated Thinking Skills

PMI

<http://wwwfp.education.tas.gov.au/english/PMI.htm>

Double Bubble Map

<http://www.niles-hs.k12.il.us/west/skills/skills/thinkingmaps.pdf>

Ras Alert

http://www.itcpublications.com/PDFs/Page148-9%20from%20ITC_US_07_08-2.pdf

Resources and Materials

Enviroschools kit, past researched information, model building materials and resources for clay making bricks.
Ecological footprint art supplies.

Assessment Methods

Self, group and teacher assessment of model making using preset criteria. Models will be constructed using the matrix of final ideas from all students 2005–2008, including features on the building, around the building and in the building. Models will have at least 15 selected features.

Learning Experiences

Usual Format of Electives Day

9.30 – 10.30, 11.30 – 12.30, 1.30 – 2.30

Week 1 and 2 – Reflection and Current Situation

- * Discuss project history and goals for this elective. Review the project to date, who has been involved. In six groups, students complete a historical timeline jigsaw (first ideas). Students in the eco-classroom working party (ECWP) observe group discussions, taking notes of conversations but not participating. When finished, each group asks their ECWP members three questions to make changes. Share findings.
- * ECWP share PowerPoint presentations, model, letter from original group, adobe steps and photographic booklets. Students then make changes to their timeline puzzle (colour code changes).
- * Understanding student roles. Students brainstorm the role students have had in the past and how they perceive their current role (similar/different). Complete a double bubble map to compare this. Analogy of relay team.
- * Discuss is it okay to change things in the design? Has the model design maintained the original intention of the eco-classroom? Check the prioritised criteria and wish list. Identify important components missing to discuss with Antanas.
- * Antanas visits to talk through the design to date and outline next stages.

Week 3 and 4 – Exploring Alternatives and Putting Knowledge into Practice

- * Students experience eco-products being made. Visit to school from Te Maouri Tau site (Raglan – Whaingaroa), making mud bricks at school using clay by side of hall. Collecting clay from school to compare properties of each.
- * Exploring the Maori perspective of nature and where clay fits into the Maori family tree.
- * Visit from Sue Wake (Unitec Auckland) to discuss presenting some of our ideas at a conference in USA on 'Children and Sustainability'.
- * Mr Mossop to explain the next new Junior Classroom and the environmental features incorporated due to the student studies in these electives.

Week 5 – Exploring a Living Landscape

- * Visit to Sustainable Backyard, Hamilton Gardens. Taken by Robyn Irving on a guided tour. Ras Alert to record ideas and questions.

Week 6 – Green Assessment Rating

- * David Pronger (Antanas Procuta Architects) to visit and explain process.
- * Score rating sheet.
- * Model making planning (exterior, interior and landscaping) to meet set criteria related to wish list and new information gained.

Week 7 – Green Lunch Launch to the Wider Community for Support

Week 8 – Collating Information

- * Presenting information to share with Antanas and David Pronger.
- * Model planning to set criteria.

Week 9 – Celebration and Reflection

- * Complete model assessment, information collation and artwork.
- * Community sharing day and art auction.

Evaluation

Students who performed well and where to next

Students who had difficulties and where to next

Planning successes

Modification and future direction