



National Certificate of Educational Achievement  
TAUMATA MĀTAURANGA Ā-MOTU KUA TAEA

**2009**

## **Internal Assessment Resource**

Subject Reference: **Education for Sustainability 3.1**

Internal assessment resource reference number:  
**EfS/3/1\_B1**

### **Towards a Sustainable City**

Supports internal assessment for:

Achievement Standard: 90828

Evaluate a planned personal action that contributes toward a sustainable future

Credits: 6

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For use in internal assessment  
from 2009

## **Teacher Guidelines:**

The following guidelines are supplied to enable teachers to carry out valid and consistent assessment using this internal assessment resource.

### **Context/setting:**

Students will need the opportunity to learn about issues of sustainability, action planning, documentation, evaluation and reflective process. The action project the students choose should be manageable within the time frame set. They must work with an outside organisation or individual in order to develop insight and gather evidence into their chosen issue for action. This could be within the school or local community. The aspects of sustainability and their interdependence will have been addressed in the learning program.

Students need to be familiar with the action-oriented process of the *Guidelines for Environmental Education in New Zealand Schools* (pg 74), Learning Media, Ministry of Education, 1999, and with the relevant concepts and terms relating to a range of Level 8 Achievement Objectives as outlined in *The New Zealand Curriculum*, Learning Media, Ministry of Education, 2007, and supporting curriculum documents.

Students are encouraged to carry out their action in their local community to enable setting of realistic objectives and timeframe. It is important that students choose their own action so there is a sense of meaning and purpose.

Cleaning up litter and beach clean ups are not considered actions for sustainability, the cause of the issue must be addressed!

### **Conditions:**

It is expected that students will complete this action assignment over an extended period of time (say 10-16 weeks, 60 hours work). Supervision is necessary and may be done through milestone meetings. In order to ensure authenticity of student work reflective logs or learning journals are to be kept along with evidence of the processes involved whilst planning and taking action. The planning of the action may be completed in class time but aspects of the action will need to be done in the student's own time. The action plan and evidence of the implementation needs to be sighted by the teacher at scheduled times.

### **Resource requirements:**

Students should have been introduced to the concept of action and had some sustainability action examples profiled. It could be useful here to invite a speaker from a well-known organisation, which has taken action for sustainability so that students can hear the philosophy behind the action and develop an understanding of the skills required.

It is expected that students will have understanding of the concept of a sustainable future. It is important that time is allocated so that students can investigate the criteria other organisations use to judge whether the actions they are taking meet sustainability outcomes. Relevant organisations include councils and businesses. Students also need to develop criteria by which they can evaluate the effectiveness of their personal action plan. This includes the identification of key competencies and project management skills they are developing whilst working collaboratively to develop a plan.

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**Student Instructions Sheet**

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By the end of this assignment you will be able to show that you can:

- plan a personal action that will contribute towards a sustainable future
- implement the plan of action
- evaluate the planned personal action that contributes to a sustainable future.

**A sustainable city** is an entire city dedicated to minimising the required inputs (of energy, water and food) and its waste output (of heat, air pollution as CO<sub>2</sub>, methane, and water pollution).

A sustainable city can feed itself with minimal reliance on the surrounding countryside, and power itself with renewable sources of energy. The crux of this is to create the smallest possible ecological footprint, and to produce the lowest quantity of pollution possible, to efficiently use land; compost used materials, recycle it or convert waste-to-energy, and thus the cities overall contribution to climate change will be minimal if such practices are adhered to.

It is estimated that around 50% of the world's population now lives in cities and urban areas, (UNFPA State of world Population 2007). Essentially these large communities are unsustainable, but they provide both challenges and opportunities for environmentally-conscious developers. In order to make them more sustainable, building design and practice, as well as perception and lifestyle must adopt sustainability thinking.

[http://en.wikipedia.org/wiki/Sustainable\\_city](http://en.wikipedia.org/wiki/Sustainable_city)

## **INSTRUCTIONS**

### **Conditions: *Teacher specifications***

**TIME:** In order to complete this assignment you will be allocated in-class time but you will be expected to complete much of it during homework time and in the holidays.

**DUE:** \_\_\_\_\_ Late submissions will not be accepted without the permission of the school's Assessment Co-ordinator.

You are required to complete a learning journal of the investigation you have done for the development and implementation of your action plan. Your journal may be in the form of a wiki, blog or notebook. You will be given dates when it is expected you will conference with your teacher to discuss progress and the relationships you have established with the people or organisation(s) involved with the issue you have chosen to focus on.

You will be expected to negotiate with your teacher when you will hold regular conferencing sessions. It is important that you get your record book signed by your teacher at these times. If you use an electronic journal your teacher will discuss how this will be verified.

### **You will be assessed on how well you:**

- ✓ formulate a logical and detailed plan of action to address an identified sustainable issue, based on evidence
- ✓ implement your plan and record modifications as required
- ✓ critically evaluate your action plan and justify the action taken in relation to a sustainable future.

### **Task 1: CHOOSING and DEFINING AN URBAN SUSTAINABILITY TOPIC**

- a) Identify a sustainability topic that you will base your planned action on (see below for possible examples).
- b) Identify individuals or organisations that are involved with this topic.
- c) Investigate the topic using research and/or a practical investigation to collect sufficient qualitative or quantitative evidence and/or data. Make contact with, or work with an individual or organisation and, if possible, visit the setting in order to gain an understanding so that you may write an action plan to address some of the issues you found.
- d) Describe why this topic is a sustainability issue and the influences on aspects of sustainability (environmental, social, economic and cultural).
- e) Describe how your action will contribute towards a sustainable future.
- f) Create criteria that will evaluate the effectiveness of your action.

NOTE: at this stage it is important that you take the time to investigate the criteria other organisations use to judge whether the actions they are taking meet sustainability outcomes. Once you have some examples of these criteria draw up your own that you will use to evaluate the effectiveness of your action.

**POSSIBLE TOPIC CHOICES:**

- Locally sourced, organic food supplies
- Sustainable business practices
- Sustainable water management
- Localisation of communities
- Waste minimisation
- Sustainable housing/communities
- Sustainable transport
- Recreation spaces

**If you think of one that is not listed check with your teacher first to get the okay!**

**Task 2: ACTION FOR SUSTAINABILITY**

1. **PLAN.** Prepare a detailed action plan to address the topic you have chosen. In your action plan you will:
  - a) Develop a vision with respect to your topic.
  - b) Explain your goal which will help achieve this vision clearly and logically.
  - c) Brainstorm a range of actions that could be taken and likely consequences.
  - d) Detail the evidence you have used to select the action you will implement (e.g. cost benefit analysis). Consider actions already being done by other interest groups or stakeholders before making your final decision on the action you will implement.
  - e) Based on your research, write a comprehensive action plan, which should include a series of steps to achieve your action within a **suitable time frame** and relate it to your overall purpose. Outline the roles others may take in supporting you to undertake the action.

**Milestone 1.** Your action plan needs to be approved by your teacher before it is implemented (**teacher to insert date**).....

2. **IMPLEMENTATION.** Implement your plan.
  - Keep a record of the date and the activities you were involved in – this is to be written up in the learning journal or log and can be supplemented by photos, newspaper articles, video clips etc that illustrate your action(s).
  - Reflect on your plan and describe any barriers that you faced, include any modifications to your action plan with the reasons why changes were made.

Remember to keep a learning journal of your action process – enter your reflections daily. Questions you may ask yourself are: ‘What did I do this week? How did I feel about my progress? What have I learned? What people did I meet with? What do I plan to do next?’

**Milestone 2.** Your teacher or project mentor will sign your log book at regular intervals. Dates will be given to you to show evidence of implementation.

**Task 3: EVALUATION.** This evaluation is in four parts. You are expected to complete all parts in full to gain merit or excellence.

- a) Identify and discuss the strengths, weaknesses, opportunities and threats of your action planning process. Document any modifications to the plan and the reasons why they were made. Explain why some procedures didn't go as well as planned if appropriate.
- b) Critically evaluate and justify the effectiveness of the action taken for a sustainable future. Apply aspects of sustainability and/or Māori concepts using the criteria you developed in task 1 to make a judgment. Include any evidence or feedback to back up your statements. Include recommendations for next actions for a sustainable future.
- c) Describe your personal response to the action or initiative in terms of aspects of sustainability. Discuss whether it has changed your understanding, attitudes or behaviour in relation to this issue.
- d) Communicate relevant information about the plan, action taken and evaluation.

***(Teacher to select - format could be a PowerPoint, written report or a speech with the learning journal as evidence.)***

Support your report with evidence which could be in the form of a blog, wiki, video documentary graphs, statistics, timelines, diaries; annotated diagrams artifacts, maps, visuals, radio excerpts, photos, newspaper articles, video clips, music etc.

#### Checklist

Your report should include:

- Action chosen and the reason relating to a sustainability future.
- Comprehensive and informed plan with evidence of implementation of action.
- Critical evaluation and justification of how the plan and the action will support a more sustainable future.
- Personal reflection of your attitudes, values and behaviours in response to implementing this action.

**Assessment Schedule: EfS/3/1\_B1 - Towards a Sustainable City**

Task	Evidence/Judgements for Achievement	Evidence/Judgements for Achievement with Merit	Evidence/Judgements for Achievement with Excellence
	Evaluate a personal action that contributes toward a sustainable future.	Evaluate a comprehensive planned personal action that contributes toward a sustainable future.	Critically evaluate and justify a comprehensive planned personal action that contributes toward a sustainable future.
<b>Task 1</b>	Action plan <ul style="list-style-type: none"> <li>• Action goal or vision stated.</li> <li>• Sustainability issue described.</li> <li>• A range of possible actions and consequences outlined with <b>reference to research</b>.</li> <li>• People/groups/organisations affected identified.</li> <li>• One action recommended and justified <b>using evidence</b>.</li> <li>• Contribution of action to aspects of sustainability identified and linked to issue.</li> <li>• Resources and skills required to implement action plan identified.</li> <li>• Description of clear steps to be taken.</li> <li>• Time frame shows a clear sequence.</li> </ul>	Action plan <ul style="list-style-type: none"> <li>• Action goal or vision stated.</li> <li>• Sustainability issue and environment affected by issue described with evidence.</li> <li>• A range of possible actions and consequences outlined with reference to research.</li> <li>• One action recommended and explained using <b>quantitative or qualitative evidence</b> linked to the development of the selected action.</li> <li>• Contribution to aspects of sustainability identified and linked to issue.</li> <li>• People/groups/organisations affected identified.</li> <li>• Resources and skills required to implement action plan identified.</li> <li>• Comprehensive sequence of steps to be taken with reasons for any changes.</li> <li>• Detailed time frame shows a clear sequence.</li> </ul>	As for merit
<b>Task 2</b>	Evidence of action implemented		

<p><b>Task 3</b></p>	<p>Evaluation</p> <p>Written evaluation and learning journal providing evidence submitted, including any modifications to the original plan</p> <ul style="list-style-type: none"> <li>• A strength and weakness of the plan are discussed.</li> <li>• Judgment of the effectiveness of the plan submitted, including any modifications to the original plan.</li> <li>• More than one aspect of sustainability related to the effects of the action is described in terms of a sustainable future.</li> <li>• A judgment is made on the effectiveness of the action in relation to a sustainable future.</li> <li>• Evidence of appropriate data analysis if applicable.</li> <li>• Personal response to the action for a sustainable future is discussed and related to whether it had changed their attitudes, values or behaviours in regard to more than one aspect of sustainability. (No change is acceptable with reasonable discussion.)</li> </ul>	<p>Evaluation</p> <p>Written evaluation and learning journal providing evidence submitted, including any modifications to the original plan</p> <p>As for achieved</p>	<p>Critical evaluation and justification</p> <p>Written evaluation and learning journal providing evidence submitted, including any modifications to the original plan.</p> <p>Criteria are established based on more than one aspect of sustainability in relation to a sustainable future to:</p> <ul style="list-style-type: none"> <li>• make a judgment on the plan in effecting the action</li> <li>• make a judgment on the effectiveness of the action</li> <li>• justify the plan and action.</li> </ul> <p>Future alternatives and suggestions for next actions are given.</p> <p>Personal response to the action for a sustainable future is discussed and related to whether it had changed their attitudes, values or behaviours in regard to more than one aspect of sustainability. (No change is acceptable with reasonable discussion.)</p>
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