2

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90814



### Level 2 Education for Sustainability, 2011

# 90814 Describe aspects of sustainability in relation to a sustainable future

9.30 am Friday 18 November 2011 Credits: Four

Check that the National Student Number (NSN) on your admission slip is the same as the number at the top of this page.

Answer TWO of the four questions in this booklet.

If you need more room for any answer, use the extra space provided at the back of this booklet.

Check that this booklet has pages 2–16 in the correct order and that none of these pages is blank.

YOU MUST HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.

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ASSESSOR'S USE ONLY  Achievement Criteria				
Achievement	Achievement with Merit	Achievement with Excellence		
Describe aspects of sustainability in relation to a sustainable future.	Explain aspects of sustainability in relation to a sustainable future.	Discuss aspects of sustainability in relation to a sustainable future.		
	Overall level of performance			

You are advised to spend 60 minutes answering TWO questions in this booklet.

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#### **INSTRUCTIONS**

Before you select TWO questions to answer, **carefully read** all FOUR questions. Use these planning pages to make brief notes about aspects and examples you want to cover, or points you wish to make in your answers. Use a different planning page for each question.

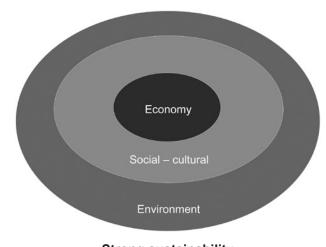
#### **PLANNING PAGE**

#### QUESTION

#### Four aspects of sustainability are:

- Environmental/ecological
- Social
- Cultural
- Economic.

They are often represented like this:



Strong sustainability

Useful **concepts**. Highlight the ones you will use:

- biodiversity
- personal and social responsibility
- interdependence
- future generations
- values and beliefs
- kaitiakitanga (guardianship and conservation)
- equity and social justice
- conflicts and trade-offs
- market demand
- new ways of thinking and acting
- resource management
- · perception
- ecological footprint.

Aspects of sustainability and concepts in relation to a sustainable future

Examples/Case studies/Supporting evidence

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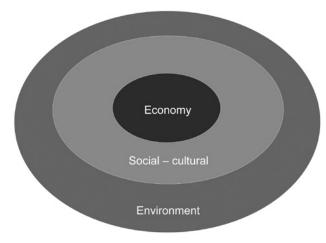
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Aspects of sustainability and concepts in relation to a sustainable future

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#### **EITHER: QUESTION ONE: CONSUMERISM**

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Cartoons are effective political tools as they convey the ideas and viewpoints of the cartoonist succinctly. In this cartoon Polyp uses a mixture of visual and written elements to make his point.

Resource A	
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Source: <i>Polyp</i> cartoons, www.polyp.org.uk/cartoons/wealth/polyp_cartoon_tourist_yuppie_hypocrite_	
gap_year_wealth_poverty.jpg	
Carefully study the cartoon. The cartoonist is making a strong statement about consumerism ar global inequality.	nd
Discuss the cartoonist's message and how it relates to a sustainable future. In your discussion, must:	you
apply aspects of sustainability	
<ul> <li>refer to case studies or examples you have studied.</li> </ul>	

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#### OR: QUESTION TWO: RESOURCE USE AND FOOD

One of the most pressing needs of the present day, and indeed for the future, is how to feed the increasing global population.

Resource B	Resource C
The impact that Peak Oil will have	Of particular concern is the fact that in New
	Zealand
	34 000 tonnes of meat, and 9 300 tonnes of fish.
	Source: Sue Kedgley: Food Bill debate (22 July 2010)
	www.parliament.nz/en-NZ/PB/Debates/Debates/Speeches/3
	/5/4/49HansS_20100722_00000699- Kedgley-Sue-Food-Bill-First-Reading.htm
	reagicy-oue-r ood-biii-r inst-reading.htm
	Resource E
takes 10 calories of fossil fuel to produce a	In 2009 New Zealand exported
single calorie of food really is food for thought.	-
Source: Page 4, <i>Permaculture</i> magazine	
No. 60 (Summer 2009)	of the value of our exports.
	Source: www.med.govt.nz
Resource D	Course. www.mcu.govi.nz
Arable land lost due to soil erosion this year	
(hectares): 5 399 116.	
Source: www.worldometers.info/	

#### Resource F

FAO: The food price crisis: what happened and why? ...

• export restrictions leading to hoarding and panic buying.

Source: www.fao.org/isfp/background/en/

Source: Adapted from www.fao.org/ worldfoodsituation/wfs-home/foodpricesindex/en/

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	Resource G
	For copyright reasons, this resource cannot be reproduced here.
<b>61.1</b>	
	bal average figures for the virtual water <sup>1</sup> content of foods and beverages.  ual water is a measure of the water use required to produce a product or service.
	ce: Adapted from www.royalsociety.org.nz/media/publications-policy-2009-emerging-issues-virtual-water.pdf
a)	When considering the FOUR aspects of sustainability and the resources on pages 6
u)	and 7, identify TWO issues the world and/or New Zealand faces with respect to food
	production/consumption as we seek to develop a more sustainable future.
	(1)
	(1)
	(2)

Support your discussion with refestudied.	their likely impact on at least TWO aspects of sustainability. ference to debates or specific initiatives/examples you have	AS L

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#### OR: QUESTION THREE: BIODIVERSITY

Carefully study the stimulus material. The material is about biodiversity from a variety of sources.

Resource H Biodiversity is New Zealand's	Resource I Biodiversity is the natural biological capital
Source: Masterton District Council www.mstn.govt.nz/projects/biodiversity2/index.php  Resource J  Source: http://www.biosecurity.govt.nz/	and to discover new products and technologies.  Source: http://knowledge.cta.int/en/Dossiers/S-T-Issues-in-Perspective/Biodiversity/Articles/Biodiversity-Science-and-Governance From article on Biodiversity, Science and Governance by Zacharia Magombo
Resource K	Resource L
Source: www.biodiversity.govt.nz/index.html	Source: http://biodiversity.tamu.edu/about.html

Discuss how individuals, groups, organisations and/or governments have responded to biodiversity challenges. In your discussion you must:

- apply aspects of sustainability in relation to a sustainable future
- refer to the stimulus material as well as relevant case studies or examples you have studied.

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#### OR: QUESTION FOUR: CLIMATE CHANGE

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Read the resource below carefully. It is clear that this writer sees climate change as a global problem that requires both a global action plan and a local response.

## **Resource M**Living with climate change

Climate change is already upon us, and it will get worse ...

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- ... Adaptation and mitigation<sup>2</sup> are not alternatives. Both are needed.
- <sup>1</sup> Transmission belt area in the world where the malaria-carrying mosquito is common.
- <sup>2</sup> Mitigation reduction in effect.

Source: Page 107, J.D. Sachs, Common Wealth: Economics for a crowded planet (2008)

Discuss the type of action plans government organisations and/or communities have initiated in response to climate change. In your discussion you must:

- apply aspects of sustainability in relation to a sustainable future to these responses
- refer to case studies or examples of specific community or government actions. These may be at the local, national or global level.

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QUESTION NUMBER				

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QUESTION NUMBER	1	Extra space if required. Write the question number(s) if applicable.	
NUMBER			