

Assessed student work

Sciences teacher support material

## Example 8: Can we keep transportation cheap and clean?

## Introduction

How to use this teacher support material

Assessed student work

<u>Overview</u>

Example 1a

Example 1b

Example 2a

Example 2b

Example 3a

Example 3b

Example 4a

Example 4b

Example 5a

Example 5b

Example 6a

Example 6b

Example 7a

Example 7b

Example 8

Example 9a

Example 9b

Example 10a

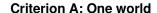
Example 10b

**Appendices** 

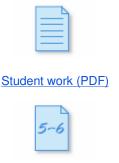
Frequently asked questions
Sample forms

## Assessment

Criterion	A	В	С	D	E	F
Level achieved	4	4	_	_	_	_



Maximum: 6



**Assessment** 

Achievement level	Level descriptor
3–4	The student <b>describes</b> how science is applied and how it may be used to address a specific problem or issue in a local or global context.
	The student <b>describes</b> the effectiveness of science and its application in solving the problem or issue.
	The student <b>describes</b> the implications of the use and application of science interacting with <b>at least one</b> of the following factors: moral, ethical, social, economic, political, cultural and environmental.

This work achieved level 4 because the student:

- describes how catalytic converters are used to reduce toxic emissions in internal combustion engines
- describes environmental and economic effects concerned with the use of hydrocarbons as fuels, but not in great detail.

The student would have achieved a higher level if he had:

- explained to a greater extent how the mechanism of catalysis has been used to develop catalytic converters
- discussed the effectiveness of catalytic converters in converting toxic combustion into cleaner, less toxic substances
- discussed and evaluated in more detail the implications of the use of catalytic converters in terms of the societal issues mentioned in the essay.

## **Criterion B: Communication in science**

Maximum: 6

Achievement level	Level descriptor
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This work achieved level 4 because the student:

- uses some scientific language correctly and effectively
- communicates scientific information with some effectiveness, using verbal and visual communication modes
- partially documents sources of information with some errors.

The student would have achieved a higher level if he had:

- used a greater range of scientific language correctly
- referred to the illustrations more precisely in the text of the essay
- · fully documented all sources of information correctly.

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