

Example 8: Can we keep transportation cheap and clean?



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Assessment

Criterion	A	B	C	D	E	F
Level achieved	4	4	–	–	–	–

Criterion A: One world

Maximum: 6

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

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



[Student work \(PDF\)](#)



[Assessment](#)

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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