

## Example 9a: How will genetic engineering affect modern society?

### Introduction

[How to use this teacher support material](#)

### Assessed student work

[Overview](#)

[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	B	C	D	E	F
Level achieved	4	4	–	–	–	–

### Criterion A: One world

Maximum: 6

Achievement level	Level descriptor
3–4	<p>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.</p> <p>The student <b>describes</b> the effectiveness of science and its application in solving the problem or issue.</p> <p>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.</p>

This work achieved level 4 because the student:

- describes genetic testing as an application of science, but fails to explain how the tests can be carried out
- describes the effectiveness of genetic testing, its power, limitations and negative consequences
- discusses the economic and social implications for a particular case of a family when a child is born with a genetic defect.

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

- explained how genetic testing may be used to address issues in a local or global context
- included information on the scientific advances in reproductive technology
- discussed and evaluated the implication of genetic testing more fully, including the economic effects of *in vitro* fertilization
- discussed and evaluated moral, ethical and cultural factors of genetic engineering.

### Criterion B: Communication in science

Maximum: 6

Achievement	Level descriptor
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[Student work \(PDF\)](#)



[Assessment](#)

This work achieved level 4 because the student:

- uses some scientific language correctly, although more information could have been given on the techniques used in this branch of science
- does not always communicate her ideas effectively
- cites some sources of information using in-text referencing.

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

- included more relevant scientific information on reproductive technology
- developed and communicated her ideas more effectively, including visual forms of communication and illustrations as appropriate
- fully documented all sources of information correctly following an agreed reference style.

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