

Criterion D: Reflecting on the impacts of science

Maximum: 8

At the end of YEAR 10, students should be able to:

- i. explain the ways in which science is applied and used to address a specific problem or issue
- ii. discuss and evaluate the various implications of using scientific applications to solve a specific problem or issue
- iii. apply scientific language effectively
- iv. document the work of others and sources of information used.

Achievement level	Level descriptor
0	The student does not reach the standard described in any of the levels below.
1-2	<p>The student is able to:</p> <ol style="list-style-type: none"> i. outline the ways in which science is applied and used to address a specific problem or issue ii. outline the implications of using science and its application to solve a specific problem or issue, interacting with a factor iii. apply scientific language to communicate understanding but does so with limited success iv. document sources, with limited success. <p>The student's work:</p> <ul style="list-style-type: none"> <input type="checkbox"/> introduces a specific problem or issue. <input type="checkbox"/> attempts to describe the application of science to address the problem. <input type="checkbox"/> addresses the implications (such as moral, ethical, economical, environmental, political, social or cultural) of the use of science to solve the problem superficially. <input type="checkbox"/> contains little use of scientific language <input type="checkbox"/> does not contain resources that help understanding, such as graphs, pictures, diagrams, etc. <input type="checkbox"/> The key and related concepts are not stated. <input type="checkbox"/> references are not included or are very incomplete. <input type="checkbox"/> Also, there are no references in the text.
3-4	<p>The student is able to:</p> <ol style="list-style-type: none"> i. summarise the ways in which science is applied and used to address a specific problem or issue ii. describe the implications of using science and its application to solve a specific problem or issue, interacting with a factor iii. sometimes apply scientific language to communicate understanding clearly and precisely iv. sometimes document sources correctly. <p>The student's work:</p> <ul style="list-style-type: none"> <input type="checkbox"/> introduces a specific problem or issue. <input type="checkbox"/> describes the application of science to address the problem clearly and accurately. <input type="checkbox"/> discusses and evaluates just 1 implication (such as moral, ethical, economical, environmental, political, social or cultural) of the use of science to address the problem. <input type="checkbox"/> contains some correct use of scientific language <input type="checkbox"/> contains some resources that not always help to understand it, such as graphs, pictures, diagrams, etc. <input type="checkbox"/> The key and related concepts are stated. <input type="checkbox"/> references are included in APA format and in text referencing but with some omissions or mistakes.
5-6	<p>The student is able to:</p> <ol style="list-style-type: none"> i. describe the ways in which science is applied and used to address a specific problem or issue ii. discuss the implications of using science and its application to solve a specific problem or issue, interacting with a factor iii. usually apply scientific language to communicate understanding clearly and precisely iv. usually document sources correctly. <p>The student's work:</p> <ul style="list-style-type: none"> <input type="checkbox"/> introduces a specific problem or issue. <input type="checkbox"/> attempts to explain the application of science to address the problem either clearly or accurately. <input type="checkbox"/> discusses and evaluates at least 2 implications (such as moral, ethical, economical, environmental, political, social or cultural) of the use of science to address the problem. <input type="checkbox"/> contains mostly correct use of scientific language <input type="checkbox"/> contains resources that help to understand it, such as graphs, pictures, diagrams, etc. <input type="checkbox"/> The key and related concepts are present throughout the essay but their relationship with the topic is not always clear. <input type="checkbox"/> All references are included in APA format with mostly correct in text referencing.
7-8	<p>The student is able to:</p> <ol style="list-style-type: none"> i. explain the ways in which science is applied and used to address a specific problem or issue ii. discuss and evaluate the implications of using science and its application to solve a specific problem or issue, interacting with a factor iii. consistently apply scientific language to communicate understanding clearly and precisely iv. document sources completely. <p>The student's work:</p> <ul style="list-style-type: none"> <input type="checkbox"/> introduces a specific problem or issue. <input type="checkbox"/> explains the application of science to address the problem clearly and accurately. <input type="checkbox"/> discusses and evaluates at least 3 implications (such as moral, ethical, economical, environmental, political, social or cultural) of the use of science to address the problem. <input type="checkbox"/> contains correct use of scientific language <input type="checkbox"/> contains several resources that help to understand it, such as graphs, pictures, diagrams, etc. <input type="checkbox"/> Focuses the essay clearly from a key and related concept for science. <input type="checkbox"/> All references are included in APA format with correct in text referencing.