

Criterion A: One world

Achievement Level	Level Descriptor
0	The student does not reach a standard described by any of the descriptors below.
1–2	<p>The student states 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 states the effectiveness of science and its application in solving the problem or issue.</p>
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>
5–6	<p>The student explains 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 discusses the effectiveness of science and its application in solving the problem or issue.</p> <p>The student discusses and evaluates the implications of the use and application of science interacting with at least two of the following factors: moral, ethical, social, economic, political, cultural and environmental.</p>

Criterion B: Communication in science

Achievement Level	Level Descriptor
0	The student does not reach a standard described by any of the descriptors below.
1–2	<p>The student uses a limited range of scientific language correctly.</p> <p>The student communicates scientific information with limited effectiveness.</p> <p>When appropriate to the task, the student makes little attempt to document sources of information.</p>
3–4	<p>The student uses some scientific language correctly.</p> <p>The student communicates scientific information with some effectiveness.</p>

	When appropriate to the task, the student partially documents sources of information.
5-6	The student uses sufficient scientific language correctly. The student communicates scientific information effectively. When appropriate to the task, the student fully documents sources of information correctly.

Criterion C: Knowledge and understanding of science

Achievement Level	Level Descriptor
0	The student does not reach a standard described by any of the descriptors below.
1-2	The student recalls some scientific ideas, concepts and/or processes. The student applies scientific understanding to solve simple problems.
3-4	The student describes scientific ideas, concepts and/or processes. The student applies scientific understanding to solve complex problems in familiar situations. The student analyses scientific information by identifying parts, relationships or causes.
5-6	The student uses scientific ideas, concepts and/or processes correctly to construct scientific explanations. The student applies scientific understanding to solve complex problems including those in unfamiliar situations. The student analyses and evaluates scientific information and makes judgments supported by scientific understanding.

Criterion D: Scientific inquiry

Achievement Level	Level Descriptor
0	The student does not reach a standard described by any of the descriptors below.
1-2	The student attempts to state a focused problem or research question. The method suggested is incomplete. The student attempts to evaluate the method and respond to the focused problem or research question.

3-4	<p>The student states a focused problem or research question and makes a hypothesis but does not explain it using scientific reasoning.</p> <p>The student selects appropriate materials and equipment and writes a mostly complete method, mentioning some of the variables involved and how to manipulate them.</p> <p>The student partially evaluates the method.</p> <p>The student comments on the validity of the hypothesis based on the outcome of the investigation.</p> <p>The student suggests some improvements to the method or makes suggestions for further inquiry when relevant.</p>
5-6	<p>The student states a clear focused problem or research question, formulates a testable hypothesis and explains the hypothesis using scientific reasoning.</p> <p>The student selects appropriate materials and equipment and writes a clear, logical method, mentioning all of the relevant variables involved and how to control and manipulate them, and describing how the data will be collected and processed.</p> <p>The student evaluates the method, commenting on its reliability and validity.</p> <p>The student comments on the validity of the hypothesis based on the outcome of the investigation.</p> <p>The student suggests realistic improvements to the method and makes suggestions for further inquiry when relevant.</p>

Criterion E: Processing data

Achievement Level	Level Descriptor
0	The student does not reach a standard described by any of the descriptors below.
1-2	<p>The student collects some data and attempts to record it in a suitable format.</p> <p>The student organizes and presents data using simple numerical or visual forms.</p> <p>The student attempts to identify a trend, pattern or relationship in the</p>

	<p>data.</p> <p>The student attempts to draw a conclusion but this is not consistent with the interpretation of the data.</p>
3-4	<p>The student collects sufficient relevant data and records it in a suitable format.</p> <p>The student organizes, transforms and presents data in numerical and/or visual forms, with a few errors or omissions .</p> <p>The student states a trend, pattern or relationship shown in the data.</p> <p>The student draws a conclusion consistent with the interpretation of the data.</p>
5-6	<p>The student collects sufficient relevant data and records it in a suitable format.</p> <p>The student organizes, transforms and presents data in numerical and/or visual forms logically and correctly.</p> <p>The student describes a trend, pattern or relationship in the data and comments on the reliability of the data.</p> <p>The student draws a clear conclusion based on the correct interpretation of the data and explains it using scientific reasoning.</p>

Criterion F: Attitudes in science

Achievement Level	Level Descriptor
0	The student does not reach a standard described by any of the descriptors below.
1-2	<p>The student requires some guidance to work safely and some assistance when using material and equipment.</p> <p>The student requires some guidance to work responsibly with regards to the living and non-living environment.</p> <p>When working as part of a group, the student needs frequent reminders to cooperate with others.</p>
3-4	<p>The student requires little guidance to work safely and little assistance when using material and equipment.</p> <p>The student works responsibly with regards to the living and non-living</p>

	<p>environment.</p> <p>When working as part of a group the student cooperates with others on most occasions.</p>
5-6	<p>The student requires no guidance to work safely and uses material and equipment competently.</p> <p>The student works responsibly with regards to the living and non-living environment.</p> <p>When working as part of a group, the student cooperates with others.</p>