

Science Rubric - Year 3 (8 <sup>th</sup> grade)				
	0	1 or 2	3 or 4	5 or 6
Criteria A: One World	The student does not reach a standard described by any of the descriptors below.	The student <b>states</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>states</b> the effectiveness of science and its application in solving the problem or issue.	The student <b>attempts to describe</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>attempts to describe</b> the effectiveness of science and its application in solving the problem or issue. The student <b>attempts to describe</b> the implication of the use and application of science interacting with <b>one</b> of the following factors: moral, ethical, social, economic, political, cultural and environmental.	The student <b>attempts to explain</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>attempts to explain</b> one of the benefits or limitations of science and its application in solving the problem or issue. The student <b>discusses and attempts to evaluate</b> the implications of the use and application of science interacting with <b>one</b> of the following factors: moral, ethical, social, economic, political, cultural, and environmental.
Criteria B: Communication in science	The student does not reach a standard described by any of the descriptors below.	The student uses a <b>limited range</b> of scientific language <b>correctly</b> . The student communicates scientific information with <b>limited effectiveness</b> . When appropriate to the task, the student <b>makes little attempt</b> to document sources of information.	The student uses <b>some</b> scientific language correctly. The student communicates scientific information with <b>some effectiveness</b> . When appropriate to the task, the student <b>partially documents</b> sources of information.	The student uses <b>sufficient</b> scientific language correctly. The student communicates scientific information <b>effectively</b> . When appropriate to the task, the student <b>fully documents</b> sources of information <b>correctly</b> .
Criteria C: Knowledge and understanding of science	The student does not reach a standard described by any of the descriptors below.	The student <b>recalls some</b> scientific ideas, concepts and/or processes. The student applies scientific understanding to solve <b>simple problems</b> .	The student <b>describes</b> scientific ideas, concepts and/or processes. The student applies scientific understanding to solve <b>complex problems in familiar situations</b> . The student <b>analyses</b> scientific information by identifying parts, relationships or causes.	The student <b>uses</b> scientific ideas, concepts and/or processes <b>correctly to construct scientific explanations</b> . The student applies scientific understanding to solve complex problems <b>including</b> those in <b>unfamiliar situations</b> .
Criteria D: Scientific inquiry	The student does not reach a standard described by any of the descriptors below.	The student <b>attempts to state</b> a focused problem or research question. The method suggested <b>is incomplete</b> . The student <b>attempts to evaluate</b> the method and respond to the focused problem or research question.	The student <b>states</b> the purpose of the investigation and <b>attempts to provide a hypothesis</b> that may not be fully developed using some scientific reasoning. The student <b>describes</b> some of the variables involved and how to manipulate them. The method is complete and includes appropriate materials/equipment. The student <b>attempts to evaluate</b> the method and responds to the question.	The student <b>states</b> the purpose of the investigation, <b>states a testable hypothesis</b> and <b>discusses</b> the hypothesis using scientific reasoning. The student <b>identifies</b> the relevant variables and discusses how to manipulate them. The student attempts to evaluate the method and its <b>reliability</b> and/or <b>validity</b> . The student suggests improvements to the method and makes suggestions for further inquiry when relevant.

<p>Criterion E: Processing Data</p>	<p>The student does not reach a standard described by any of the descriptors below</p>	<p>The student <b>collects some</b> data and <b>attempts to record</b> it in a suitable format. The student <b>organizes and presents</b> data using <b>simple</b> numerical or visual forms. The student <b>attempts to identify</b> a trend, pattern or relationship in the data. The student <b>attempts to draw a conclusion</b>.</p>	<p>The student collects <b>sufficient</b> relevant data and <b>records</b> it in the suitable format. The student organizes, <b>transforms</b> and presents data in numerical and/or visual forms, <b>with a few errors or omissions</b>. The student <b>states</b> a trend, pattern or relationship shown in the data. The student draws a <b>conclusion consistent with</b> the interpretation of the data.</p>	<p>The student collects sufficient relevant data and records it in suitable format. The student organizes, transforms and presents data in numerical and/or visual forms <b>logically and correctly</b>. The student <b>describes</b> a trend, pattern or relationship in the data and comments on the reliability of the data. The student draws a <b>clear conclusion based on the correct interpretation</b> of the data and <b>explains it</b> using scientific reasoning.</p>
<p>Criterion F: Attitudes in Science</p>	<p>The student does not reach a standard described by any of the descriptors below.</p>	<p>The student <b>requires some guidance</b> to work safely and <b>some assistance</b> when using material and equipment. The student requires <b>some guidance</b> to work responsibly with regards to the environment. When working as part of a group, the student needs <b>frequent reminders to cooperate with others</b>.</p>	<p>The student <b>requires very little guidance</b> to work safely and <b>little assistance</b> when using material and equipment. The student <b>works responsibly</b> with regards to the environment. When working as part of a group the student <b>cooperates with others on most occasions</b>.</p>	<p>The student requires no guidance to work safely and uses material and equipment competently. The student works responsibly with regards to the environment. When working as part of a group, the student cooperates with others.</p>