

GRADE 9 Q2 0708		Score and Description- >	0 (includes blank)	1	2	3
<b>ASSESSMENT KEY</b> 1 B D20 2 B D19 3 D D19 4 C D21 5 A D20 6 A D15 7 B D15 8 A D16 9 A D13 10 C D17 11 D DINQ 8 12 C DINQ 5 13 B DINQ 3 <b>GRADE 9 Q2 OPEN ENDED QUESTIONS SCORING RUBRIC</b>	<b>Question</b>	<b>CT State Standard</b>	<p>The response, although may be on topic, is an unsatisfactory answer to the question. It may fail to address the question, or it may address the question in a very limited way.</p> <p>There may be no evidence of elaboration, extension, higher-order thinking, or relevant prior knowledge. There may be evidence of serious misconceptions</p>	<p>This response is a marginal answer to the question. While it may contain some elements of a proficient response, it is inaccurate, incomplete, and/or inappropriate. There is little if any evidence of elaboration, extension, higher-order thinking or relevant prior knowledge. There may be evidence of significant misconceptions.</p>	<p>This response is a proficient answer to the question. It is generally correct, complete, and appropriate although minor inaccuracies may appear. There may be limited evidence of elaboration, extension, higher-order thinking, and relevant prior knowledge, or there may be significant evidence of these traits but other flaws (e.g., inaccuracies, omissions, and inappropriateness) may be more than minor.</p>	<p>This response is an excellent answer to the question. It is correct, complete, and appropriate and contains elaboration, extension, and/or evidence of higher-order thinking and relevant prior knowledge. There is no evidence of misconceptions. Minor errors will not necessarily lower the score.</p>
61	<p>What are the variables that should have been controlled or kept constant in Group B's experiment? Explain why it is important to control variables in an experiment.</p>	<p>DINQ5. Identify independent and dependent variables, including those that are kept constant and those used as controls.</p>	<p><i>States no constants needed, or all variables incorrect.</i></p>	<p><i>Misidentifies one of the variables. Only some constant properties correctly identified, or no explanation as to the reason for controlling variables.</i></p>	<p><i>Identifies both variables: Independent variable: type of plastic, but should have kept sizes the same, dependent variable: strength of plastic. Lists some important properties to keep constant., some explanation of need for constants</i></p>	<p><i>Identifies both variables correctly, Lists most properties to keep constant size of plastic, length, thickness, width, method of measuring, placing of washers. Discusses reason for controlling variables as knowing the cause for the effect, referring to making a valid conclusion</i></p>

62	<p>What conclusions can be drawn from GROUP B's experiment and results? How valid do you think these conclusions are, based on the group's experiment and results? Explain your answer fully.</p>	<p>DINQ9 Articulate conclusions and explanations based on the results of the research, and assess their validity based on the design of the investigation.</p>	<p><i>Conclusion wrong, or conclusion about different types of plastics and strength without explanation.</i></p>	<p><i>Correct conclusion about strength of plastic differing with type or size. Generally valid, but little reference to Group C experiment and results (may refer to own experience or other info).</i></p>	<p><i>Conclusion correct and generally valid, refers to Group C experiment and results and measurements. Little or unimportant validity concerns expressed.</i></p>	<p><i>Conclusion correct, (about type of plastic affecting strength) refers to Group B experiment and actual number results. Expresses important concerns about validity with sizes being different confusing results, as well as methods of measuring strength.</i></p>
63	<p>How would you change Group B's experiment to determine how thickness of a plastic affects the amount it stretches? Be specific and explain your answer fully.</p>	<p>DINQ4 Design and conduct appropriate types of scientific investigations to answer different questions.</p>	<p><i>Incorrect procedure, changing something other than thickness, or no explanation.</i></p>	<p><i>Incomplete procedure, discussing changing thickness without description of using same type of plastic. May have incorrect statements about setup.</i></p>	<p><i>Generally describes an experiment that uses same type of plastic, only changing thickness, measuring strength. Only some description of keeping other properties constant.</i></p>	<p><i>Describes a good procedure for using the same type and size of plastic, keeping all other variables constant, conducting multiple trials, and measuring the strength in a careful manner. May also discuss how data will be analyzed.</i></p>