

**10th Science Ohio Graduation Test
Scientific Inquiry**

Benchmark A

Question 23	Spring 2009		A												
Question 35	Spring 2009	<table border="1"> <thead> <tr> <th>Score Point</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>4 points</td> <td>The student response demonstrates a complete understanding of the task by generating four questions regarding the properties of the unknown powder that could be safely tested and answered in the laboratory. The response is focused and relevant to the task.</td> </tr> <tr> <td>3 points</td> <td>The student response demonstrates an understanding of the task by generating three questions regarding the properties of the unknown powder that could be safely tested and answered in the laboratory. The response is focused and relevant to the task.</td> </tr> <tr> <td>2 points</td> <td>The student response demonstrates a partial understanding of the task by generating two questions regarding the properties of the unknown powder that could be safely tested and answered in the laboratory. The response is relevant to the task, but there may be gaps in focus. It provides some evidence of understanding.</td> </tr> <tr> <td>1 point</td> <td>The student response demonstrates an unclear understanding of the task by generating only one question regarding the properties of the unknown powder that could be safely tested and answered in the laboratory. The response fails to adequately address the task or omits significant aspects of the task and may provide unrelated or unclear information. There is little evidence of focus.</td> </tr> <tr> <td>0 points</td> <td>The student response does not meet the criteria required to earn one point. The response indicates inadequate or no understanding of the task. It may only repeat information from the passage or prompt or provide incorrect or irrelevant information. The student may have written on a different topic or written, "I don't know."</td> </tr> </tbody> </table>	Score Point	Description	4 points	The student response demonstrates a complete understanding of the task by generating four questions regarding the properties of the unknown powder that could be safely tested and answered in the laboratory. The response is focused and relevant to the task.	3 points	The student response demonstrates an understanding of the task by generating three questions regarding the properties of the unknown powder that could be safely tested and answered in the laboratory. The response is focused and relevant to the task.	2 points	The student response demonstrates a partial understanding of the task by generating two questions regarding the properties of the unknown powder that could be safely tested and answered in the laboratory. The response is relevant to the task, but there may be gaps in focus. It provides some evidence of understanding.	1 point	The student response demonstrates an unclear understanding of the task by generating only one question regarding the properties of the unknown powder that could be safely tested and answered in the laboratory. The response fails to adequately address the task or omits significant aspects of the task and may provide unrelated or unclear information. There is little evidence of focus.	0 points	The student response does not meet the criteria required to earn one point. The response indicates inadequate or no understanding of the task. It may only repeat information from the passage or prompt or provide incorrect or irrelevant information. The student may have written on a different topic or written, "I don't know."	
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Question 19	March 2008		B												

Question 35	March 2008	<p>4 points The response demonstrates a complete understanding of the task by providing two reasons why the conclusion may not be valid, and by describing how each reason could invalidate the conclusion. The response is focused and relevant to the task.</p> <p>3 points The response demonstrates an understanding of the task by providing two reasons why the conclusion may not be valid and describing how one reason could invalidate the conclusion.</p> <p style="text-align: center;">OR</p> <p>The response provides one reason why the conclusion may not be valid and describes how that reason could invalidate the conclusion and describes one other way the conclusion could be invalidated without providing a specific reason (e.g., "it could have just been an anomaly in those samples").</p> <p>2 points The response demonstrates a partial understanding of the task by providing two reasons why the conclusion may not be valid.</p> <p style="text-align: center;">OR</p> <p>The response provides one reason why the conclusion may not be valid and describes how that reason could invalidate the conclusion.</p> <p style="text-align: center;">OR</p> <p>The response describes two ways the conclusion could be invalidated without providing a specific reason (e.g., "it could have just been an anomaly in those samples" and "it would be impossible to tell where the pollution came from").</p> <p>1 point The response demonstrates an unclear understanding of the task by providing one reason why the conclusion may not be valid.</p> <p style="text-align: center;">OR</p> <p>The response describes one way the conclusion could be invalidated without providing a specific reason.</p> <p>0 points The response demonstrates no understanding of the task. The response may provide incorrect information or be irrelevant to the task.</p>
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Question 6	9 th Practice	<p align="center">Scoring Guidelines for Question 6</p> <table border="0"> <thead> <tr> <th align="left">Score Point</th> <th align="left">Description</th> </tr> </thead> <tbody> <tr> <td>2 points</td> <td>The student correctly compares the shapes of the two graphs and explains why the predicted values are probable.</td> </tr> <tr> <td>1 point</td> <td>The student correctly compares the shapes of the two graphs. OR The student explains why the predicted values are probable.</td> </tr> <tr> <td>0 points</td> <td>The student response demonstrates no understanding of the task. The response may provide incorrect information or be irrelevant to the task. The student may repeat information from the passage or prompt or may have written "I don't know."</td> </tr> </tbody> </table>	Score Point	Description	2 points	The student correctly compares the shapes of the two graphs and explains why the predicted values are probable.	1 point	The student correctly compares the shapes of the two graphs. OR The student explains why the predicted values are probable.	0 points	The student response demonstrates no understanding of the task. The response may provide incorrect information or be irrelevant to the task. The student may repeat information from the passage or prompt or may have written "I don't know."
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Question 42	Spring 2005	<p>Sample Response for Item 42 (Short Answer):</p> <p>The response describes an appropriate control for the scientist's study (e.g., "The scientist should include a similar soil plot containing newly sprouted corn seeds that are not treated with fertilizer.").</p> <p>AND</p> <p>If the scientist wants to determine whether fertilizer has an effect on growth, she needs to observe how growth takes place in the absence of fertilizer. Otherwise she would not be able to attribute any observations she makes to the use of the fertilizer.</p> <p>Scoring Guidelines for Item 42:</p> <table border="0"> <thead> <tr> <th align="left">Score point</th> <th align="left">Description</th> </tr> </thead> <tbody> <tr> <td>2 points</td> <td>The response describes an appropriate control and why it is important to include the control.</td> </tr> <tr> <td>1 point</td> <td>The response describes an appropriate control. OR The response successfully explains the need for controls in experimental design.</td> </tr> <tr> <td>0 points</td> <td>The response demonstrates no understanding of the task. The response may provide incorrect information or be irrelevant to the task. The response may repeat information from the passage or prompt, or state "I don't know."</td> </tr> </tbody> </table>	Score point	Description	2 points	The response describes an appropriate control and why it is important to include the control.	1 point	The response describes an appropriate control. OR The response successfully explains the need for controls in experimental design.	0 points	The response demonstrates no understanding of the task. The response may provide incorrect information or be irrelevant to the task. The response may repeat information from the passage or prompt, or state "I don't know."
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