

**10th Science Ohio Graduation Test
Life Science Standard**

Benchmark A

Question 5	Spring 2009	C
Question 3	March 2008	C
Question 37	Spring 2005	B
Question 3	9 th Practice	D
Question 23	Spring 2006	B

Benchmark B

Question 5	March 2008	B
Question 38	Spring 2005	D
Question 19	9 th Practice	D

Benchmark C

Question 20	Spring 2009	C								
Question 29	Spring 2009	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Score Point</th> <th style="text-align: left;">Description</th> </tr> </thead> <tbody> <tr> <td>2 points</td> <td>The student describes the difference between asexual reproduction and sexual reproduction with respect to the genetic makeup of the offspring produced.</td> </tr> <tr> <td>1 point</td> <td>The student describes the genetic makeup of offspring produced by asexual reproduction. OR The student describes the genetic makeup of offspring produced by sexual reproduction.</td> </tr> <tr> <td>0 points</td> <td>The student response demonstrates no understanding of the task or concept. The response may provide an incorrect solution and/or supporting information may be totally 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 describes the difference between asexual reproduction and sexual reproduction with respect to the genetic makeup of the offspring produced.	1 point	The student describes the genetic makeup of offspring produced by asexual reproduction. OR The student describes the genetic makeup of offspring produced by sexual reproduction.	0 points	The student response demonstrates no understanding of the task or concept. The response may provide an incorrect solution and/or supporting information may be totally 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 39	Spring 2009	C								
Question 9	March 2008	D								
Question 9	Spring 2006	A								
Question 11	Spring 2005	A								

Question 12	Spring 2005	<p>Scoring Guidelines for Item 12:</p> <table border="1"> <thead> <tr> <th>Score point</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>4 points</td> <td>The response shows a correctly drawn Punnett square or a diagram of the cross. The response includes an accurate interpretation of the Punnett square. The comparison is completed by including a statement that the couple's children, based upon the given pedigree, do not match the numbers expected from the Punnett square.</td> </tr> <tr> <td>3 points</td> <td>The response shows a correctly drawn Punnett square or a diagram of the cross. The response interprets the pedigree or makes an accurate comparison between the Punnett square and the pedigree. OR The response shows a single error in the Punnett square but follows through by correctly interpreting the pedigree and makes an accurate comparison between the student's Punnett square and the pedigree.</td> </tr> <tr> <td>2 points</td> <td>The response shows a correctly drawn Punnett square or diagram of the cross. OR The response shows a single error in the Punnett square but follows through by correctly interpreting the Punnett square. OR The response fails to show a Punnett square but provides a correct interpretation and comparison with the results of the pedigree.</td> </tr> <tr> <td>1 point</td> <td>For example: "The pedigree shows three out of the four children as carriers. In a cross between a male BB parent and a female Bb parent, however, only 50% of the offspring would be expected to carry the gene." The response shows a single error in the Punnett square or other diagram of the cross. OR The response gives a correct interpretation of the Punnett square without attempting to draw one. OR The response gives a correct interpretation of the pedigree.</td> </tr> <tr> <td>0 points</td> <td>The student response does not meet the criteria 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 response shows a correctly drawn Punnett square or a diagram of the cross. The response includes an accurate interpretation of the Punnett square. The comparison is completed by including a statement that the couple's children, based upon the given pedigree, do not match the numbers expected from the Punnett square.	3 points	The response shows a correctly drawn Punnett square or a diagram of the cross. The response interprets the pedigree or makes an accurate comparison between the Punnett square and the pedigree. OR The response shows a single error in the Punnett square but follows through by correctly interpreting the pedigree and makes an accurate comparison between the student's Punnett square and the pedigree.	2 points	The response shows a correctly drawn Punnett square or diagram of the cross. OR The response shows a single error in the Punnett square but follows through by correctly interpreting the Punnett square. OR The response fails to show a Punnett square but provides a correct interpretation and comparison with the results of the pedigree.	1 point	For example: "The pedigree shows three out of the four children as carriers. In a cross between a male BB parent and a female Bb parent, however, only 50% of the offspring would be expected to carry the gene." The response shows a single error in the Punnett square or other diagram of the cross. OR The response gives a correct interpretation of the Punnett square without attempting to draw one. OR The response gives a correct interpretation of the pedigree.	0 points	The student response does not meet the criteria 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 13	Spring 2005	D												
Question 14	Spring 2005	A												
Question 29	9 th Practice	B												

Question 30	9 th Practice	<p>Scoring Guidelines for Question 30</p> <p>Score point Description</p> <p>2 points The student predicts that all four boys would inherit the disease and explains how Y-linked inheritance differs from X-linked inheritance.</p> <p>1 point The student predicts that all four boys would inherit the disease.</p> <p> OR</p> <p> The student explains how Y-linked inheritance differs from X-linked inheritance.</p> <p>0 points The student response demonstrates no understanding of the task or concept. The response may provide an incorrect solution and supporting information may be totally irrelevant to the task. The student may repeat information from the passage or prompt or may have written "I don't know."</p>
Question 31	9 th Practice	C
Question 32	9 th Practice	C

Benchmark D

Question 15	Spring 2006	A
Question 17	9 th Practice	C
Question 26	March 2007	B
Question 27	March 2007	C
Question 42	March 2007	C

Benchmark E

Question 25	Spring 2009	A
Question 32	March 2008	B
Question 14	9 th Practice	B
Question 43	Spring 2005	C
Question 4	March 2007	C
Question 5	March 2007	D

Benchmark F

Question 33	Spring 2009	A
Question 11	March 2008	B
Question 43	March 2008	C
Question 2	Spring 2006	A
Question 3	Spring 2006	D*

Question 9	9 th Practice		B
Question 34	9 th Practice		A
Question 9	Spring 2005		A
Question 36	Spring 2006		B
Question 2	March 2007		A
Question 25	March 2007	<p>Score Point Description</p> <p>2 points The student response demonstrates a complete understanding of the task by identifying a condition within the pond that could affect oxygen concentration values and explaining its effect.</p> <p>1 point The student response demonstrates a partial understanding of the task by identifying a condition within the pond that could affect oxygen concentration values but fails to correctly explain its effect.</p> <p>0 points The student response demonstrates no understanding of the task. The response may provide incorrect information or be irrelevant to the task.</p>	
Question 40	March 2007		B
Question 44	March 2007		C

Benchmark G

Question 2	Spring 2009		C
Question 13	Spring 2009		B
Question 10	March 2008		B
Question 37	Spring 2006	<p>Scoring Guidelines for Item 37:</p> <p>Score Point Description</p> <p>2 points The student response describes one advantage and one disadvantage of using the 150% application of herbicide.</p> <p>1 point The student response describes one advantage OR one disadvantage of using the 150% application of herbicide.</p> <p>0 points The student response demonstrates no understanding of the task. The response may provide incorrect information or be irrelevant to the task.</p>	
Question 3	March 2007		B

Benchmark H

question 44	Spring 2009		C
Question 12	March 2008	<p>2 points The student proposes a logical hypothesis that could explain the survival of the weeds and explains how this hypothesis could be tested scientifically.</p> <p>1 point The student proposes a logical hypothesis that could explain the survival of the weeds but the explanation of how to test the hypothesis is flawed or illogical.</p> <p>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."</p>	
Question 33	March 2008		C
Question 8	Spring 2006		C
Question 35	Spring 2006		A
Question 38	Spring 2006		B
Question 30	March 2007		C

Benchmark I

Question 31	Spring 2009		B
Question 41	Spring 2009		B
Question 34	March 2008		C

Benchmark J

Question 37	March 2008		D
Question 39	Spring 2005		D