

**7th Grade  
Science  
Practice Test**

**Answer Key  
for 7th Grade  
Science Practice Test**

### 7<sup>th</sup> grade Science Practice Test Answer Key

Question #	Type	Content Standard	Content Standard Benchmark	Key
1	Multiple Choice	Physical Sciences	A	C
2	Multiple Choice	Life Sciences	C	A
3	Multiple Choice	Scientific Inquiry	B	D
4	Multiple Choice	Physical Sciences	A	D
5	Short Answer	Physical Sciences	A	S
6	Multiple Choice	Earth and Space Sciences	C	C
7	Multiple Choice	Earth and Space Sciences	C	D
8	Multiple Choice	Scientific Ways of Knowing	C	C
9	Extended Response	Earth and Space Sciences	C	E
10	Multiple Choice	Earth and Space Sciences	D	C
11	Multiple Choice	Physical Sciences	C	D
12	Multiple Choice	Life Sciences	C	D
13	Multiple Choice	Physical Sciences	A	D
14	Multiple Choice	Earth and Space Sciences	D	A
15	Multiple Choice	Life Sciences	A	A
16	Multiple Choice	Physical Sciences	C	C
17	Short Answer	Life Sciences	C	S
18	Multiple Choice	Life Sciences	A	B
19	Multiple Choice	Life Sciences	A	A
20	Multiple Choice	Life Sciences	A	B
21	Multiple Choice	Physical Sciences	D	A

5.

2	<p>The response provides the correct prediction that once placed in the graduated cylinder, the egg-shaped ball will displace the same amount of water AND a correct explanation that this is because the egg-shaped ball will have the same volume as the original ball (the ball was only changed physically).</p> <p><b>Exemplar Response:</b> The ball went through a physical change. When the ball is put back into the graduated cylinder the water will rise to the same place – so the same amount will be displaced. The ball has the same volume after it was squished.</p> <p><b>Other Correct Response(s):</b> The amount of water displaced by the lead should be the same because stepping on it only changed its shape, not its volume.</p>
1	<p>The response provides a correct prediction of the effect of the change in the ball's shape on the volume of water it displaces OR if no prediction is given, a correct explanation of the effect on the amount of water displaced by demonstrating an understanding that the volume of the ball was not changed (the ball was only changed physically). [Note to Scorers: No credit may be given if an incorrect prediction is made. Providing an explanation for an incorrect prediction does not provide evidence of an understanding of the task.]</p> <p><b>Sample answer:</b> The volume of the lead ball is the same after it's stepped on, even though the shape is different.</p>
0	<p>The response fails to provide a correct prediction of the effect of the change in the ball's shape on the volume of water it displaces nor does it demonstrate any understanding that the volume of the ball was not changed when it was deformed. The response does not meet the criteria required to earn one point. The response indicates inadequate or no understanding of the task and/or the idea or concept needed to answer the item. It may only repeat information given in the test item. The response may provide an incorrect solution/response and the provided supportive information may be totally irrelevant to the item, or possibly, no other information is shown. The student may have written on a different topic or written, "I don't know".</p> <p><b>Sample answer:</b> The amount of water displaced by the lead ball changes.</p>

9.

4	<p>The response provides correct weather predictions (including sky conditions and likelihood of precipitation) for both Sunday and Tuesday and a correct, supporting reason for each prediction.</p> <p><b>Exemplar Response:</b> On Sunday, the weather in Cleveland should be stormy or rainy because of the cold front that is passing through. There is a high likelihood of rain and the sky will be cloudy when the front passes through. On Tuesday the weather should be sunny (no clouds or precipitation) because of the nearby high pressure air mass.</p> <p><b>Other Correct Response(s):</b> On Sunday it should be windy and rainy with dark clouds and then turn clear and colder as the cold front passes through. On Tuesday the sky should be clear with no rain because there are no frontal systems nearby. <b>Acceptable answers include: Sunday</b> – sky: cloudy, stormy weather; wind (could result in rapidly changing cloud cover); possible clearing and turning colder after storm/rain/wind precipitation: high probability of rain Reasons: nearby cold front passing through; low pressure system <b>Tuesday</b> – sky: fair, clear, sunny precipitation: precipitation not likely Reasons: nearby high pressure system; no frontal systems are nearby</p>
3	<p>The response provides correct predictions for both Sunday and Tuesday, but the supporting reason for one of the days is incorrect, unclear, or missing.</p> <p><b>Sample answer:</b> The weather on Sunday should be cloudy and rainy because of the cold front nearby and on Tuesday, it should be clear because the rain moved away.</p>
2	<p>The response provides one correct prediction with a supporting reason, but an incorrect prediction on the other day OR the response provides correct predictions for both days but has incorrect, unclear, or missing supporting reasons for both days.</p> <p><b>Sample answer:</b> The weather should be clear on Sunday because of the cold front nearby. The weather should be sunny with no rain on Tuesday because of the high pressure system nearby.</p>
1	<p>The response provides the correct prediction for one day but has an incorrect, unclear, or missing supporting reason for that day.</p> <p><b>Sample answer:</b> The weather should be sunny on Tuesday because it is a couple of days after Sunday.</p>
0	<p>The response fails to provide a correct prediction for either day. The response does not meet the criteria required to earn one point. The response indicates inadequate or no understanding of the task and/or the idea or concept needed to answer the item. It may only repeat information given in the test item. The response may provide an incorrect solution/response and the provided supportive information may be totally irrelevant to the item, or possibly, no other information is shown. The response may name the days of the week without supporting information. The student may have written on a different topic or written, “I don't know”.</p> <p><b>Sample answer:</b> There is a likelihood of precipitation and sky conditions on Sunday and Tuesday.</p>

17.

2	<p>Response identifies two abiotic (nonliving) resources AND provides plausible explanations of how the organism uses both resources. [Note to Scorers: The fish and paramecium produce carbon dioxide as a waste product of cellular respiration. A response that provides that the fish or paramecium uses carbon dioxide is incorrect. Students should not be penalized for including inaccurate science that is beyond grade level, specific to organisms, or otherwise not part of the content being assessed (i.e., identify abiotic resources and explain how those resources are used).]</p> <p><b>Exemplar Response:</b> The water lily needs sunlight and water to live. The water lily uses the sunlight to carry out photosynthesis and gets nutrients from the water.</p> <p><b>Other Correct Response(s):</b> Possible resources and explanations include:</p> <ul style="list-style-type: none"> <li>• Sunlight – The water lily uses the sunlight for photosynthesis. Fish use sunlight to see.</li> <li>• Water – The water lily gets nutrients and all three organisms get shelter from the water of the lagoon. The fish and paramecium get oxygen from the water. The fish in the picture and paramecium both need water in order to move. The paramecium uses its cilia to move water and food particles into its body (mouth). Water is necessary for the proper cellular functioning of the fish, paramecium and water lily. The water lily uses water in photosynthesis/combines water with carbon dioxide to form glucose/sugars.</li> <li>• Soil/ground – The water lily uses the soil/ground to hold onto (to stay in one place). The water lily gets nutrients from the soil. The fish may get shelter/protection from the soil if it burrows.</li> <li>• Oxygen – All three organisms use oxygen for respiration (to provide energy from food)</li> <li>• Carbon Dioxide – The water lily uses carbon dioxide for photosynthesis.</li> <li>• Nutrients – All three organisms use nonliving nutrients to build/grow/regenerate themselves.</li> </ul>
1	<p>Response provides only one abiotic (nonliving) resource and a correct explanation <b>OR</b> identifies two abiotic resources but fails to give a plausible and generally correct explanation for either.</p> <p><b>Sample answer:</b> The fish uses water to get nutrients and oxygen.</p>
0	<p>The response fails to either identify an abiotic resource and explain how it is used or fails to identify two abiotic resources. The response does not meet the criteria required to earn one point. The response indicates inadequate or no understanding of the task and/or the idea or concept needed to answer the item. It may only repeat information given in the test item. The response provides only biotic resources (i.e., plants and animals), an incorrect solution/response and the provided supportive information may be totally irrelevant to the item, or possibly, no other information is shown. The student may have written on a different topic or written, “I don't know”.</p> <p><b>Sample answer:</b> A resource in the lake is the frog or other animals in the lake.</p>

