# Grade 6 Science Practice Test Answer Key

This document contains the answer keys, rubrics, and Scoring Notes for items on the Grade 6 Science Practice Test. Additional Practice Test resources are available in the LDOE Practice Test Library.

<table>
<thead>
<tr>
<th>Session</th>
<th>Set</th>
<th>Sequence</th>
<th>Item Type</th>
<th>Key</th>
<th>Point Value</th>
<th>Alignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Properties of Light and Sound Waves</td>
<td>1</td>
<td>MC</td>
<td>C</td>
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<td>D</td>
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<tr>
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<td>Organelles</td>
<td>5</td>
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<td>7</td>
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<td>A, C, E</td>
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<td>A, C</td>
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<td>Changes in Earth’s Magnetic Field</td>
<td>24</td>
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<td>B</td>
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<td>PE: 6-MS-PS2-3&lt;br&gt;DCI: MS.PS2B.a&lt;br&gt;CCC: Cause and Effect</td>
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| 3       | Changes in Earth's Magnetic Field | 25 | TEI | See Rubric | 2 | PE: 6-MS-PS2-3  
DCI: MS.PS2B.a  
CCC: Cause and Effect |
| 3       | Changes in Earth's Magnetic Field | 26 | TEI | See Rubric | 1 | PE: 6-MS-PS2-5  
SEP: 3. Planning and carrying out investigations  
DCI: MS.PS2B.c |
| 3       | Changes in Earth's Magnetic Field | 27 | CR | See Rubric | 2 | PE: 6-MS-PS2-5  
SEP: 3. Planning and carrying out investigations  
DCI: MS.PS2B.c  
CCC: Cause and Effect |
| 3       | Anasazi and the Great Drought | 28 | MC | C | 1 | PE: 6-MS-LS2-1  
SEP: 4. Analyzing and interpreting data  
DCI: MS.LS2A.b  
CCC: Cause and Effect |
| 3       | Anasazi and the Great Drought | 29 | MC | C | 1 | PE: 6-MS-LS2-1  
SEP: 4. Analyzing and interpreting data  
DCI: MS.LS2A.c  
CCC: Cause and Effect |
| 3       | Anasazi and the Great Drought | 30 | TEI | See Rubric | 2 | PE: 6-MS-LS2-2  
SEP: 6. Constructing explanations (for science) and designing solutions (for engineering)  
DCI: MS.LS2A.d  
CCC: Patterns |
| 3       | Anasazi and the Great Drought | 31 | TPD: MC/MS | B/A, D | 2 | PE: 6-MS-LS2-2  
SEP: 6. Constructing explanations (for science) and designing solutions (for engineering)  
DCI: MS.LS2A.d  
CCC: Patterns |
| 3       | Standalone Items | 32 | MC | D | 1 | PE: 6-MS-ESS1-1  
SEP: 2. Developing and using models  
DCI: MS.ESS1B.b |
| 3       | Standalone Items | 33 | MC | B | 1 | PE: 6-MS-PS2-2  
DCI: MS.PS2A.b  
CCC: Stability and Change |
| 3       | Standalone Items | 34 | MS | B, D | 1 | PE: 6-MS-LS1-1  
DCI: MS.LS1A.a  
CCC: Scale, Proportion and Quantity |
| 3       | Standalone Items | 35 | TEI | See Rubric | 1 | PE: 6-MS-PS3-2  
SEP: 2. Developing and using models  
DCI: MS.PS3A.b  
CCC: Systems and System Models |
| 3       | Standalone Items | 36 | MC | C | 1 | PE: 6-MS-LS2-3  
SEP: 2. Developing and using models  
DCI: MS.LS2B.a |
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<th>Key</th>
<th>Point Value</th>
<th>Alignment</th>
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</thead>
</table>
| 3       |     | 37       | TEI       | See Rubric | 2           | PE: 6-MS-PS2-5  
DCI: MS.PS2B.c  
CCC: Cause and Effect |
| 3       |     | 38       | MC        | C   | 1           | PE: 6-MS-ESS1-2  
DCI: MS.ESS1A.b  
CCC: Systems and System Models |
| 3       |     | 39       | MC        | C   | 1           | PE: 6-MS-PS2-4  
SEP: 7. Engaging in argument from evidence  
DCI: MS.PS2B.b |
| 3       |     | 40       | TEI       | See Rubric | 2           | PE: 6-MS-PS2-1  
SEP: 6. Constructing explanations (for science) and designing solutions (for engineering)  
DCI: MS.PS2A.a |
| 3       |     | 41       | TEI       | See Rubric | 1           | PE: 6-MS-PS4-1  
SEP: 5. Using mathematics and computational thinking  
DCI: MS.PS4A.a  
CCC: Patterns |
Item Types and Scoring:

- **Multiple-choice (MC) questions** with four answer options and only one correct answer. All MC items are worth one point each.

  Multiple-select (MS) questions with five to seven answer options and more than one correct answer. For MS items, the question identifies the number of correct answers, unless it is part of a Two-part Dependent (TPD). In a TPD, the question in Part B will then be worded to “select all that apply.” All MS items are worth one point each.

- **Technology Enhanced Items (TEI)**: uses technology to capture student comprehension in authentic ways, previously difficult to score by machine for large-scale assessments. TE items are worth up to two points and may include item types such as, but not limited to, drag and drop, dropdown menus, and hot spots.

- **Two-part Items**: require students to answer two related questions, worth a total of two points. Two-part items may combine MC, MS, and/or TE item types.
  - Two-part Dependent (TPD): the first part must be correct in order to earn credit for the second part. TPDs are scored as follows:
    - If both parts are correct, score is 2.
    - If Part A is correct and Part B is incorrect or partially correct, score is 1.
    - If Part A is incorrect, score is 0 regardless of Part B.
  - Two-part Independent (TPI): each part is scored independently, with each part worth one point.

- **Constructed Response (CR)**: requires a brief response provided by the student and will be scored using a 2-point rubric. These items may require a brief paragraph, a few sentences, and/or completion of a chart.

- **Extended Response (ER)**: asks students to write an in-depth response that expresses the students’ ability to apply all three dimensions of the LSS for Science and will be scored using a 9-point rubric.
Session 1 Item 2 (TEI) - Rubric

The diagram shows sound and light waves from an emergency vehicle traveling toward a brick wall. The brick wall has both smooth and rough surfaces.

Select the correct answer from each drop-down menu to complete the sentences about how each wave is affected by the brick wall.

The sound waves from the siren will pass through and reflect off ▼ the smooth surface of the wall. The light waves from the emergency vehicle will only reflect off ▼ the smooth surface of the wall. Rougher sections of the wall surface will cause the sound and light waves ▼ from the emergency vehicle to scatter.

Scoring Notes:

This item is worth 2 points. Partial credit (1 point) will be awarded if half or more of the student responses are correct. For this item, the key contains 3 correct responses; therefore 1 point will be awarded if the student selects 2 correct responses.
Session 1 Item 6 (TEI)

Drag each label describing the function of each organelle into the boxes to complete the model of a plant cell.

Each label will be used once.

cell membrane

Plant Cell

chloroplasts

controls many cell functions
produces energy for the cell
controls what substances enter and leave cells and organelles
converts light energy to chemical energy

mitochondria

nucleus
Scoring Notes:

This item is worth 2 points. Partial credit (1 point) will be awarded if half or more of the student responses are correct. For this item, the key contains 4 correct responses; therefore 1 point will be awarded if the student selects 2 or more correct responses.
Session 1 Item 8 (CR)

The scientists are designing an experiment to study the small, hairlike organelles on the outsides of some cells found in humans. They want to compare the structures of these organelles to cells from other multicellular organisms, such as plants. These organelles can have features with sizes as small as 50 to 100 nanometers (nm).

Use Figure 2 to describe which type of microscope the scientists should use to study the features of the hairlike organelles. Explain one possible function for these organelles based on where the organelles are located in the cell model in Figure 1.

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Student’s response correctly describes why the scientists should use an electron microscope AND explains at least one possible function for the hairlike organelles on the outside of some human cells.</td>
</tr>
<tr>
<td>1</td>
<td>Student’s response correctly describes why the scientists should use an electron microscope OR explains at least one possible function for the hairlike organelles on the outside of some human cells.</td>
</tr>
<tr>
<td>0</td>
<td>Student’s response does not correctly describe why the scientists should use an electron microscope or explain at least one possible function for the hairlike organelles on the outside of some human cells. OR Student’s response is blank, irrelevant, or too brief to evaluate.</td>
</tr>
</tbody>
</table>

Scoring Notes:

- Description of why the features of the organelles being studied are too small to see with a light microscope based on the size range given (1 point)
- Explanation for at least one possible function for the hairlike organelles on the outside of some human or animal cells (1 point)

Examples include:

- An electron microscope should be used because the organelle details are too small for a light microscope, which cannot see details at 50-100 nm. The hairlike organelles could help the cell to move.
- An electron microscope should be used because the organelle features are smaller than the lower limit of a light microscope. The hairlike organelles could help protect the cell from harmful objects.

Accept other reasonable answers.
Session 1 Item 10 (TEI) - Rubric

Based on Figure 1, select the correct answer from each drop-down menu to complete the sentence.

As Apollo asteroids approach Earth, the \underline{mass} of Earth can affect the \underline{orbit} of the asteroids.
Session 1 Item 12 (CR)

Scientists must consider many factors when using a spacecraft to change the path of asteroids traveling close to Earth. Using Figure 1, describe how the force of gravity from Earth could affect nearby Apollo asteroids and explain how the effect of Earth’s gravity could change the orbital motion of an Apollo asteroid.

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Student’s response correctly describes how the force of gravity from Earth could affect nearby Apollo asteroids AND correctly explains how the effect of Earth’s gravity could change the orbital motion of an Apollo asteroid.</td>
</tr>
<tr>
<td>1</td>
<td>Student’s response correctly describes how the force of gravity from Earth could affect nearby Apollo asteroids OR correctly explains how the effect of Earth’s gravity could change the orbital motion of an Apollo asteroid.</td>
</tr>
</tbody>
</table>
| 0     | Student’s response does not correctly describe how the force of gravity from Earth could affect nearby Apollo asteroids or correctly explains how the effect of Earth’s gravity could change the orbital motion of an Apollo asteroid.  
OR  
Student’s response is blank, irrelevant, or too brief to evaluate. |

Scoring Notes:

- Description of how the force of gravity from Earth affects nearby Apollo asteroids (1 point)
- Explanation of how the effect of Earth’s gravity can change the orbital motion of nearby Apollo asteroids (1 point)

Examples include:

- Apollo asteroids traveling close to Earth could be pulled closer to Earth by Earth’s gravitational force causing the asteroid to now orbit Earth.
- Figure 1 shows that the Apollo asteroids orbit the Sun. If an Apollo asteroid gets too close to Earth, Earth’s gravitational force can pull the asteroid into Earth’s orbit.

Accept other reasonable answers.
Session 1 Item 14 (TEI)

Use the information and your knowledge of science to answer the question.

A student is designing an experiment to test how different types of surfaces affect the size of the force needed to move an object. The student will use a spring scale to measure the size of the force needed to drag a brick across different flat surfaces.

Drag the correct label into each box in the table to identify the independent variable, dependent variable, and control variable in the experiment.

Not all labels will be used.

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
<th>Control Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>mass of brick</td>
<td>surface material</td>
<td>height of flat surface</td>
</tr>
<tr>
<td></td>
<td></td>
<td>size of the force needed to move brick</td>
</tr>
</tbody>
</table>
Session 1 Item 14 (TEI) - Rubric

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>surface material</th>
</tr>
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<tbody>
<tr>
<td>Dependent Variable</td>
<td>size of the force needed to move brick</td>
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<tr>
<td>Control Variable</td>
<td>mass of brick</td>
</tr>
<tr>
<td>height of flat surface</td>
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</table>

Scoring Notes:

This item is worth 2 points. Partial credit (1 point) will be awarded if half or more of the student responses are correct. For this item, the key contains 3 correct responses; therefore 1 point will be awarded if the student selects 2 correct responses.
Session 1 Item 15 (TPD)

Use the information and your knowledge of science to answer the questions.
Crude oil, also known as petroleum, is a liquid that is found within the earth. This liquid can be refined to form products such as gasoline, rubber, and different plastics. The oil is made up of different types of hydrocarbon molecules, which often contain repeating units of hydrogen and carbon atoms. The hydrocarbon molecules removed from crude oil can then be used to produce other large molecules.

Part A

Drag the molecule pieces into the correct boxes that best complete the partial model of the two molecules formed from hydrocarbon molecules.

Each molecule piece may be used more than once. Not all molecule pieces will be used.

Part B

Which structural feature of the two molecules best explains the answer to Part A?

- **a** Both molecules should contain carbon and hydrogen atoms.
- **b** The arrangement of carbon and hydrogen atoms should repeat in a regular pattern.
- **c** The hydrogen atoms should be smaller than the carbon atoms.
- **d** The number of hydrogen atoms should be greater than the number of carbon atoms.
Session 1 Item 15 (TPD) - Rubric

Part A

![Diagram of molecules with carbon and hydrogen atoms](image)

**Note:** In Accommodated form, Answer key will be “Piece 1 in Molecule X” and “Piece 2 in Molecule Y.”

Part B

Which structural feature of the two molecules **best** explains the answer to Part A?

- **a** Both molecules should contain carbon and hydrogen atoms.
- **b** The arrangement of carbon and hydrogen atoms should repeat in a regular pattern.
- **c** The hydrogen atoms should be smaller than the carbon atoms.
- **d** The number of hydrogen atoms should be greater than the number of carbon atoms.
Session 2 Item 17 (TEI) - Rubric

The students measure the speed of one of the marbles at the three points shown in the figure.

Select the correct answer from each drop-down menu to complete the paragraph.

The speed of the marble at point L will be faster than the speed of the marble at point M.
The speed of the marble at point N will be slower than the speed of the marble at point M.
For the three points measured on the track, the marble will have the most kinetic energy at point L and the least kinetic energy at point N.

Scoring Notes:

This item is worth 2 points. Partial credit (1 point) will be awarded if half or more of the student responses are correct. For this item, the key contains 4 correct responses; therefore 1 point will be awarded if the student selects 2 or more correct responses.
Session 2 Item 20 (ER)

The students want to see how changes to the design of the marble track will affect the speed and energy of the marbles.

As you respond to Part A, Part B, and Part C, follow the directions below.

- Address all the instructions in each prompt.
- Use evidence from the information provided and your own knowledge of science to support your responses.

Part A
One student wants to increase the potential energy of the marble at the starting position. Explain one way the students can adjust the track to increase the marble's potential energy. In your explanation,

- describe the dimensions of any materials used to adjust the track and
- explain why the adjustment to the track would increase the marble's potential energy.

Part B
Another student wants to use another marble that will have a greater kinetic energy than either the ceramic marble or the steel marble at each point along the track. Explain how the mass and size of the third marble should compare to the masses and sizes of the ceramic and steel marbles. Explain the reasoning for your answer.

Part C
One student wants to change the track so that the potential energy of the marble from point 1 to point 5 is constant. Explain how the student could change the track so that the potential energy of the marble is constant and explain why that change will keep the potential energy constant.

Score Points

- The student’s score is the sum total of all the points earned across all parts (up to an item-maximum of 9 points) of the item.
- The student’s score is 0 if the response is blank, incorrect, or does not address the prompt.
Session 2 Item 20 (ER), continued

PART A (0-3 points maximum)

- 1 point for describing change to track design
- 1 point for describing dimensions or relative size of materials used
- 1 point for explaining how change increases the potential energy at the starting position

PART B (0-3 points maximum)

- 1 point for explaining that the mass of the marble should be greater than the mass of the other two balls, but the size should be the same
- 1 point for explaining that kinetic energy increases as mass increases
- 1 point for explaining that keeping the size the same will not cause additional friction that could slow the marble down

PART C (0-3 points maximum)

- 1 point for describing that the student should make the track the same height throughout points 1-5.
- 1 point relating potential energy to height
- 1 point for explaining that the potential energy will be the same at all points along the track if the track height is always the same

Score Information

PART A: Student explains that block X should be replaced (1 point) with a higher block (1 point) because potential energy increases with increasing height (1 point).

- Replace block X
- Use a block with a greater height than block X
- Potential energy will increase because of the increase in height for the new block

NOTE: Accept any other plausible explanation of replacing block X with a higher block to increase the potential energy of the marble.
**Session 2 Item 20 (ER), continued**

**Part B:** Student explains the mass of the marble should be increased while the size is kept the same (1 point) because the kinetic energy increases with an increase in mass (1 point) but keeping the size the same will not cause additional friction that could slow the marble down (1 point).

- Marble mass should be increased; size kept the same
- Kinetic energy increases as mass increases
- Kinetic energy increases with the square of the speed

**NOTE:** Accept any other plausible explanation about increasing the mass of the marble to increase the kinetic energy of the marble.

**Part C:**

Student describes a change to make the track height an equal height all along the track from points 1 to 5 (1 point). Student explains that potential energy depends on height (1 point) and so an equal height throughout the track will keep the potential energy constant (1 point).

- Make the track height an equal height all along the track
- Potential energy depends on height
- An equal height will result in a constant potential energy

**NOTE:** Accept any other plausible explanation of how to make the track height equal along the track to result in a constant potential energy.
Session 2 Item 22 (TPI) - Rubric

Use the information and your knowledge of science to answer the questions.

The Red Bayou project in northwest Louisiana allows farmers to use river water diverted from the Red River when irrigating their crops.

Part A

Select the correct answer from each drop-down menu to complete the sentences.

The amount of groundwater used for irrigation most likely decreased as more diverted river water became available. The amount of surface water used for irrigation most likely increased as more diverted river water became available.

Part B

Which change would most likely occur after diverting river water for use in irrigation?

(a) an increase in soil erosion in the river
(b) an increase in flooding in the river
(c) an increase in the amount of water needed to water crops
(d) an increase in sediment, nutrients, and salts on crop soil
Session 2 Item 23 (TPI) - Rubric

Use the information and your knowledge of science to answer the questions.

Part A

Observers from Earth see different phases of the Moon over time as the Moon orbits around Earth.

Drag the phases of the Moon into the correct boxes to complete the model showing how the phases of the Moon look from Earth. Not all phases of the Moon will be used.

Note: In Accommodated form, Answer will be Phase Z in first box, and Phase X in second box.

Part B

Based on the information in the Moon phase model, which statement best predicts how the phases of the Moon will look as the Moon continues its orbit around Earth in the model?

- a) The Moon will become brighter with no dark areas as the Moon moves closer to the Sun.
- b) The Moon will again appear completely dark and the dark area will decrease in size until the Moon is completely bright.
- c) A dark area will start to appear on the right side of the Moon and will slowly increase in size until the Moon is completely dark.
- d) A dark area will start to appear on the left side of the Moon and will slowly increase in size until the Moon is completely dark.
Session 3 Item 25 (TEI) – Rubric

Based on Figure 2 and Figure 3, select the correct answer from each drop-down menu to complete the paragraph.

A magnetic compass needle is able to detect the direction of Earth’s magnetic North Pole. Over hundreds of thousands of years, the direction in which a compass needle points would change. During a normal polarity period, a compass needle points mostly in the direction of the geographic North Pole. After a magnetic pole reversal, a compass needle points mostly in the direction of the geographic South Pole.

Scoring Notes:

This item is worth 2 points. Partial credit (1 point) will be awarded if half or more of the student responses are correct. For this item, the key contains 3 correct responses; therefore 1 point will be awarded if the student selects 2 correct responses.
Session 3 Item 26 (TEI)

Scientists will study how Earth’s magnetic field changes as distance from Earth changes. Satellites will be placed at different distances from Earth and will be used to measure the strength of Earth’s magnetic field.

Drag the correct label into each box in the table to identify the dependent and independent variables in the investigation.

Not all labels will be used.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Property</th>
</tr>
</thead>
<tbody>
<tr>
<td>dependent variable</td>
<td>magnetic field strength</td>
</tr>
<tr>
<td>independent variable</td>
<td>distance from Earth</td>
</tr>
<tr>
<td></td>
<td>size of satellite</td>
</tr>
<tr>
<td></td>
<td>mass of satellite</td>
</tr>
<tr>
<td></td>
<td>gravitational force of Earth</td>
</tr>
</tbody>
</table>
**Session 3 Item 26 (TEI) - Rubric**

<table>
<thead>
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</tr>
</tbody>
</table>

- size of satellite
- mass of satellite
- gravitational force of Earth
Session 3 Item 27 (CR)

Scientists are planning an investigation to collect evidence to help predict future magnetic pole reversals of Earth’s magnetic field. Using the information in Figure 3, describe how scientists can collect data on changes in Earth’s magnetic poles and explain how this data can be used to predict future magnetic pole reversals.

### Scoring Information

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Student’s response correctly describes how scientists can collect data on changes in Earth's magnetic poles AND correctly explains how this data can be used to predict future magnetic pole reversals.</td>
</tr>
<tr>
<td>1</td>
<td>Student’s response correctly describes how scientists can collect data on changes in Earth's magnetic poles OR correctly explains how this data can be used to predict future magnetic pole reversals.</td>
</tr>
</tbody>
</table>
| 0     | Student’s response does not correctly describe how scientists can collect data on changes in Earth’s magnetic poles or correctly explain how this data can be used to predict future magnetic pole reversals.  
**OR**  
Student’s response is blank, irrelevant, or too brief to evaluate. |

**Scoring Notes:**

- Description of how scientists can collect data on changes in Earth’s magnetic poles (1 point)
- Explanation of how this data can be used to predict future magnetic pole reversals (1 point)

**Examples include:**

- The scientists can use the ocean floor rocks to measure the amount of time between each change in direction of the magnetic fields of the rocks (1 point) and then use that data to estimate when Earth’s magnetic poles will reverse in future years (1 point)

Accept other reasonable answers.
Session 3 Item 30 (TEI) - Rubric

Select the correct answer from the drop-down menus to complete each sentence.

During the Great Drought, a decrease in the growth of corn had the greatest impact on the survival of the Anasazi people. As conditions changed, the Anasazi relied more on domesticated turkeys and rabbits for food.

Scoring Notes:

This item is worth 2 points. Partial credit (1 point) will be awarded if half or more of the student responses are correct. For this item, the key contains 3 correct responses; therefore 1 point will be awarded if the student selects 2 correct responses.
Session 3 Item 35 (TEI)

Use the information and your knowledge of science to answer the question.

The model shows a hammer and a nail in two positions. The first position shows the hammer in a resting position above the nail. The second position shows when the hammer makes contact with the nail.

Drag the labels into the correct boxes in the model to best describe each position of the hammer and the nail.

Not all labels will be used.
Session 3 Item 35 (TEI) - Rubric

- Increasing kinetic energy
- No energy

- Maximum potential energy
- Energy transfer
Session 3 Item 37 (TEI) - Rubric

Use the information and your knowledge of science to answer the question.

Engineers have recently designed skateboards that use magnets to float along a track, as shown in the figure.

![Diagram of a skateboard with magnets and track]

Select the correct answer from each drop-down menu to complete the paragraph about the design of these skateboards.

The engineers observed that the skateboard floats above the track because the magnets on the skateboard repel the magnets on the track. When a rider steps onto the skateboard, the force between the skateboard and the track increases. If the magnets are removed from the skateboard, the height of the skateboard should decrease.

Scoring Notes:

This item is worth 2 points. Partial credit (1 point) will be awarded if half or more of the student responses are correct. For this item, the key contains 3 correct responses; therefore 1 point will be awarded if the student selects 2 correct responses.
Session 3 Item 40 (TEI) - Rubric

Use the information and your knowledge of science to answer the question.
Whipple shields are used to protect spacecraft from collisions with smaller pieces of space debris, as shown in the image. The shield uses a layer of aluminum to break up pieces of incoming space debris into much smaller pieces before they collide with the spacecraft.

Scoring Notes:

This item is worth 2 points. Partial credit (1 point) will be awarded if half or more of the student responses are correct. For this item, the key contains 4 correct responses; therefore 1 point will be awarded if the student selects 2 or more correct responses.
Use the information and your knowledge of science to answer the question.

An observer standing on the shore of a lake noticed that boats traveling through the water produce waves of different sizes. The observer collected data on how the amplitude of waves from a boat changes as the waves moves closer to the shore. The data from these observations are shown in the graph.

Select the data point that shows when the waves from the boat have the most energy.

Source: New Zealand Hydrological Society.
Session 3 Item 41 (TEI) - Rubric

Source: New Zealand Hydrological Society.