

NJSLA-S Online Practice Test Answer and Alignment Document
Science: Middle School

Unit 1		
Item 1		
Domain: Physical Science		
Phenomenon: Energy constantly changes forms		
Item Number	Answer	Standards Alignment
1	Item Type: MC Key: D	DCI: PS3.C SEP: PACI CCC: C and E
Item 2		
Domain: Life Science		
Phenomenon: Organisms move at different speeds		
2	Item Type: TE Key: Nerve cells <input type="text" value="send messages to"/> different parts of the body. As a result, muscular tissues <input type="text" value="extend and contract"/> , causing the worm to move.	DCI: LS1.A SEP: EAE CCC: S & SM
Item 3		
Domain: Life Science		
Phenomenon: A student has brown eyes so she has the gene for brown eyes in her DNA.		
3	Item Type: TE Key: 75	DCI: LS3.A SEP: UMCT CCC: S,P, and Q
Item 4		
Domain: Earth and Space Science		
Phenomenon: Objects in the solar system revolve around the Sun because of gravity. Saturn is bigger than Earth but much farther from the Sun.		
4	Item Type: MC Key: A	DCI: PS2.B SEP: DUM CCC: S,P, and Q

Item 5		
Domain: Earth and Space Science		
Phenomenon: Fossils in rock strata can be used to compare geologic age of two or more areas.		
5	Item Type: TE Key: Layer <input type="text" value="D"/> and Layer <input type="text" value="J"/> are the same age. Each layer contains the same type of <input type="text" value="fossils"/> because they formed during <input type="text" value="similar"/> time periods.	DCI: ESS1.C SEP: CEDS CCC: PAT
Item 6		
Domain: Life Science		
Phenomenon: Onions are living and made of cells		
6	Item Type: TE Key: C, E	DCI: LS1.A SEP: EAE CCC: S,P, and Q
Items 7 & 8		
Domain: Life Science		
Phenomenon: Earthworms help plants grow		
7	Item Type: MC Key: D	DCI: LS2.A SEP: PACI CCC: SC
8	Item Type: MC Key: C	DCI: LS2.B SEP: CEDS CCC: E&M
Item 9		
Domain: Life Science		
Phenomenon: White tiger genetics		
9	Item Type: MC Key: B	DCI: LS3.A SEP: AQDP CCC: C and E
Item 10		
Domain: Life Science		
Phenomenon: Similarities in embryos indicate a relationship between organisms.		
10	Item Type: MC Key: A	DCI: LS4.A SEP: AID CCC: PAT
Item 11		
Domain: Earth and Space Science		
Phenomenon: The seasons are affected by motions of the sun and earth		
11	Item Type: TE Key: During the season that occurs when Earth is in Position A on the diagram, increasing Earth's tilt would cause the temperature in the Northern Hemisphere to <input type="text" value="become warmer"/> . During the season that occurs when Earth is in Position C on the diagram, increasing Earth's tilt would cause the temperature in the Northern Hemisphere to <input type="text" value="become colder"/> .	DCI: ESS1.B SEP: DUM CCC: PAT

Item 12		
Domain: Earth and Space Science		
Phenomenon: Rock types provide clues to geologists about events of the past.		
12	Item Type: MC Key: C	DCI: ESS2.A SEP: AID CCC: C and E
Item 13		
Domain: Earth and Space Science		
Phenomenon: Precious metals and gems are most commonly found in the area of long-dormant volcanoes. Regions with no volcanic activity are less likely to have precious metals in the ground.		
13	Item Type: TE Key: Based upon the data in the graph, discoveries of new oil reserves beyond the year 2000 <input type="text" value="decrease"/> . Oil is a <input type="text" value="nonrenewable"/> resource, which means the supply replenishes <input type="text" value="more slowly"/> than human demand.	DCI: ESS3.A SEP: CEDS CCC: SC
Item 14		
Domain: Earth and Space Science		
Phenomenon: Moon shapes are repeated each month		
14	Item Type: MC Key: C	DCI: ESS1.A SEP: DUM CCC: C and E
Item 15		
Domain: Physical Science		
Phenomenon: Electromagnet strength is influenced by its length, the number of turns in its coil, and the materials used to construct it.		
15	Item Type: TE Key: B, C	DCI: PS2.B SEP: AQDP CCC: C and E
Item 16		
Domain: Physical Science		
Phenomenon: Fiberoptic efficiency		
16	Item Type: TE Key: <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid #ccc; padding: 10px; width: 45%;"> <p>Constructing a new-fiber optic system helps the community.</p> <div style="border: 1px solid #00aaff; padding: 5px; margin: 5px; text-align: center;"> <p>This system can provide internet access that is fast and secure.</p> </div> <div style="border: 1px solid #00aaff; padding: 5px; margin: 5px; text-align: center;"> <p>This system can provide internet access even during thunderstorms or snowstorms.</p> </div> </div> <div style="border: 1px solid #ccc; padding: 10px; width: 45%;"> <p>Keeping the old copper-wire system helps the community.</p> <div style="border: 1px solid #00aaff; padding: 5px; margin: 5px; text-align: center;"> <p>This system can provide internet access to families who do not have much money.</p> </div> </div> </div>	DCI: PS4.C SEP: EAE CCC: C and E

Items 17-20		
Domain: Physical Science		
Phenomenon: Heat transfers from objects of warm temperature to objects of cooler temperatures		
17	<p>Item Type: TE Key:</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid #ccc; padding: 10px; width: 45%;"> <p style="text-align: center;">Increase in Kinetic Energy</p> <div style="border: 1px solid #0070c0; padding: 5px; margin-bottom: 5px; text-align: center;">The water in the cup after the washers are placed in it</div> <div style="border: 1px solid #0070c0; padding: 5px; margin-bottom: 5px; text-align: center;">The water in the beaker as it is being heated</div> <div style="border: 1px solid #0070c0; padding: 5px; text-align: center;">The washers after being placed in the beaker of water</div> </div> <div style="border: 1px solid #ccc; padding: 10px; width: 45%;"> <p style="text-align: center;">Decrease in Kinetic Energy</p> <div style="border: 1px solid #0070c0; padding: 5px; margin-bottom: 5px; text-align: center;">The washers after being placed in the cup of water</div> </div> </div>	DCI: PS1.A SEP: CEDS CCC: C and E
18	<p>Item Type: TE Key:</p> <div style="border: 1px solid #ccc; padding: 10px;"> <div style="border: 1px solid #0070c0; padding: 5px; margin-bottom: 5px; text-align: center;">Water in the beaker after it comes to a boil</div> <div style="border: 1px solid #0070c0; padding: 5px; margin-bottom: 5px; text-align: center;">Water in the cup after the washer is added</div> <div style="border: 1px solid #0070c0; padding: 5px; text-align: center;">Water in the cup before the washer is added</div> </div>	DCI: PS1.A SEP: CEDS CCC: E&M

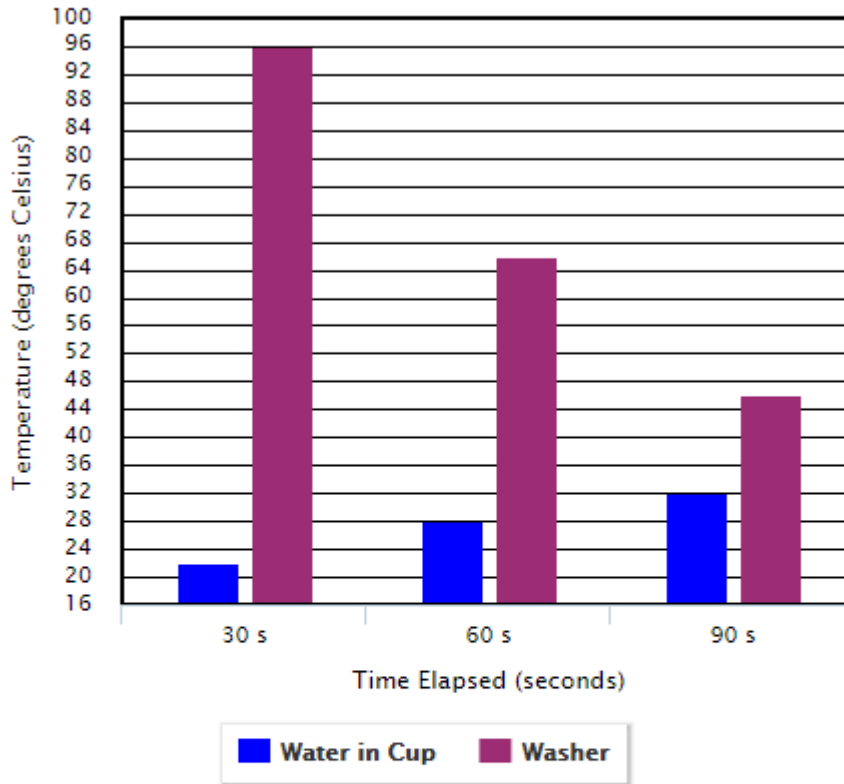
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Item Type: TE

Key: From left to right, the Blue bar graph values should be 22, 28, 32 and Red bar graph values should be 96, 66, 46.

DCI: PS1.A
SEP: AID
CCC: PAT

Temperature of Material (degrees Celsius)



As the experiment goes longer than 90 seconds, the temperature of the water in the cup will

, and the temperature of the washers

will . This will continue

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Item Type: CR

Key: This item has 4 quality points:

- 1 point for explaining increased speed/kinetic energy after the spoon is inserted.
- 1 point for explaining the transfer of heat energy.
- 1 point for explaining the increase in temperature.
- 1 point for recognizing that temperature change is less because of the larger volume of water.

DCI: PS1.A
SEP: CEDS
CCC: C and E