

ISASP Science Grade 10 Practice Test Constructed Response Rubrics

Insulin Production – Question 5

2 Points	<p>The student's response is correct and complete. The student provides valid inferences, claims, and/or evidence when prompted. The student provides the relevant information and supportive details required in the item.</p> <p><i>Sample Response:</i> Base pairs combine to create a code for each amino acid. Because each amino acid is made up of multiple base pairs, there are few amino acids than there are base pairs in the final peptide or protein chain.</p>
1 Point	<p>The student's response is partially correct or complete. The student provides partial inferences, claims, and/or evidence when prompted. The student provides some information and supportive details required in the item.</p> <p><i>Sample Response:</i> Amino acids are made up of base pairs. <u>OR</u> The human insulin gene codes for more than one amino acid.</p>
0 Points	<p>The student's response is incorrect. The student does not address the requirements asked in the question.</p> <p><i>Sample Response:</i> The human insulin gene is one large protein chain.</p>

Powder Identification – Question 8

2 Points	<p>The student's response is correct and complete. The student provides valid inferences, claims, and/or evidence when prompted. The student provides the relevant information and supportive details required in the item.</p> <p><i>Sample Response:</i> The reactions tested by the students are not mass-dependent. The chemical makeup of each powder determines how they will react when exposed to heat or other substances. The same results will occur regardless of a powder's mass because of the chemical makeup of each powder.</p>
1 Point	<p>The student's response is partially correct or complete. The student provides partial inferences, claims, and/or evidence when prompted. The student provides some information and supportive details required in the item.</p> <p><i>Sample Response:</i> The reactions tested by the students are not mass-dependent. <u>OR</u> The chemical makeup of each powder determines how they will react when exposed to heat or other substances. <u>OR</u> The same results will occur regardless of a powder's mass because of the chemical makeup of each powder.</p>
0 Points	<p>The student's response is incorrect. The student does not address the requirements asked in the question.</p> <p><i>Sample Response:</i> Determining the mass of each powder would change their chemical composition.</p>

Thermal Convection – Question 14

2 Points	<p>The student's response is correct and complete. The student provides valid inferences, claims, and/or evidence when prompted. The student provides the relevant information and supportive details required in the item.</p> <p><i>Sample Response:</i> The motion involved in mantle convection breaks the lithosphere into plates and moves them around on Earth's surface. In the student's model, the convection moves the plates apart from each other, forming the mid-ocean ridge from the upwelling of Earth's mantle.</p>
1 Point	<p>The student's response is partially correct or complete. The student provides partial inferences, claims, and/or evidence when prompted. The student provides some information and supportive details required in the item.</p> <p><i>Sample Response:</i> The motion involved in mantle convection breaks the lithosphere into plates and moves them around on Earth's surface. <u>OR</u> In the student's model, the convection moves the plates apart from each other, forming the mid-ocean ridge from the upwelling of Earth's mantle.</p>
0 Points	<p>The student's response is incorrect. The student does not address the requirements asked in the question.</p> <p><i>Sample Response:</i> The direction of mantle convection is opposite that of plate movement.</p>