

## SCIENCE GRADE 5

### A. Short Answer (SA) 2 points

#### Mean:

Standard: I.A.5

Strand: Scientific Thinking and Practice

Content Standard: Understand the processes of scientific investigations and use inquiry and scientific ways of observing, experimenting, predicting, and validating to think critically.

Benchmark: Communicate the steps and results of a scientific investigation

Daniel collected 20 crickets from a field. For his science experiment, he placed sand on the left side of an empty shoe box and placed grass on the right side. He placed the crickets into the center of the box and waited 24 hours. He observed that 13 crickets were on the right side of the box and 7 were on the left side.



- A. Describe one conclusion Daniel should make based on his results.
- B. Explain how Daniel could support his conclusion.

A.

B.

**B. Rubric****Sample Student Response:**

Part A. Daniel concludes that crickets prefer grassy areas.

Part B. Repeat the same experiment several times and compare the results.

Score	Description
2	The student demonstrates thorough understanding of the relevant scientific concepts and/or procedures. The student completes the task correctly, using scientifically sound procedures and provides clear and complete explanations and interpretations. The response may contain minor flaws that do not detract from the demonstration of thorough understanding.
1	The student demonstrates partial understanding of the relevant scientific concepts and/or procedures. The response includes some correct information, but indicates a lack of essential understanding of the scientific concepts and/or procedures. Explanations and/or interpretations are incomplete or only partially supported. The response may contain flaws that indicate misunderstanding of the task or of the scientific concepts and/or procedures.
0	The student demonstrates no understanding of the relevant scientific concepts and/or procedures. The response is incorrect or irrelevant to the skill or concept being measured, or no response is provided.

**C. Student Responses****Score 2**

<sup>54</sup> A. Most crickets like grass better than sand.

B. He could support his conclusion by taking a picture of the box and doing the same experiment with other crickets.

64  
A. Crickets like grass

B. He should research crickets and their habitats.

64  
A. He should conclude that crickets like grass more than they do sand.

E. Say that 13 crickets were on the right side, and only 7 on the left side.

Score 1

64

A. That the crickets liked the right side.

B. There were 13 crickets on that side.

64

A. That most crickets like grass not sand so you can find more crickets in grass.

B. He can support it by say it was different than he thought it would be but he tried.

64

A. More crickets like grass more than sand.

B. Wait another 24 hours to make sure.

<sup>64</sup>A. That crickets like grass more than sand.

B. He could do this again.

Score 0

<sup>64</sup>A. Maybe they were different crickets not all of them must be the same, maybe some of the like grass, or maybe some of them like sand.

B. 13 crickets were in the grass more than the sand, so that means the crickets were different.