

Science Grade 7 B

Grade Level Standard(s): Science 7 Life Science 1: Support a scientific explanation using evidence to describe how environmental factors (e.g., availability of food, light, space, water or drought) influence the growth of organisms (plants and animals).

Material(s) Provided for Science 7 B	Question(s)	Page Number
Science 7 B Jake’s Bean Plant Growth Table	1	3
Science 7 B Attainment Task Questions for Student Use	1	6

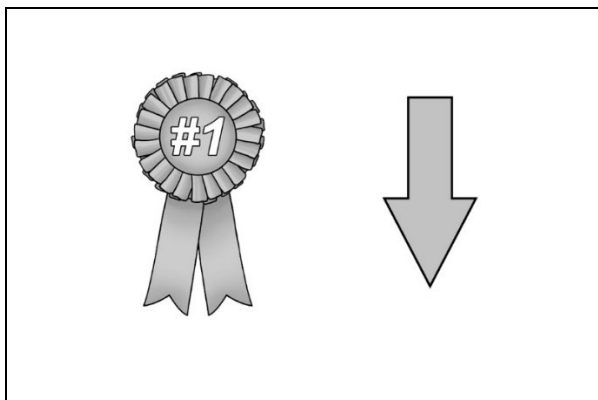
Response Code:

- Indicate the answer provided by the student.

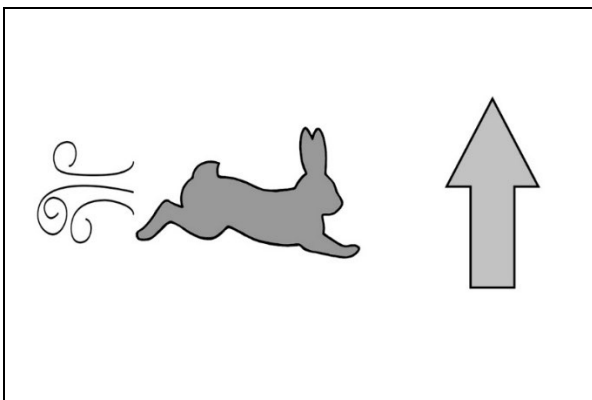
Text Coding:

- “Quotation marks” indicate the script that the teacher should read to the student.
- *Italicized text* provides further direction for the test administrator.
- Words in parenthesis () are optional; they may replace or be read in addition to the word(s) immediately preceding.

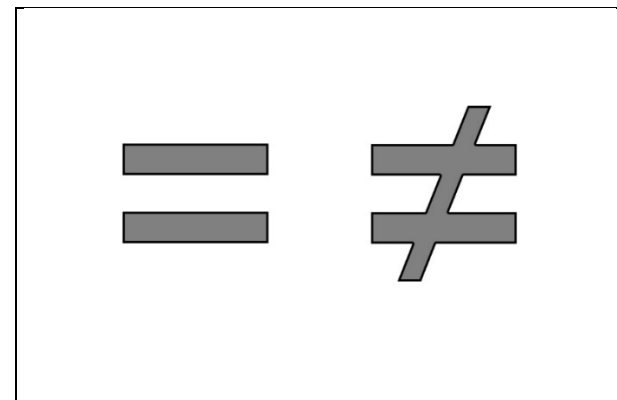
a. Best, lower



b. Faster, higher



c. Equal, different



Before beginning task administration, please ensure that all conditions specified in the administration protocol (starting on page 12 of the Administration Guide Overview and Attainment Task Administration) have been met. Inform the student that the task is about to start by saying, “We are about to start the task, and I am going to ask you some questions.”

All questions from this task are available for presentation to the student in the supplemental material Science 7 B Attainment Task Questions for Student Use.

“Jake and Shaylyn are investigating how temperature and soil type influence bean plant growth. In their investigations they used the same amounts of water, light and type of bean seeds. Every week for four weeks they measured and recorded the height of their bean plants.”

Present the student with Science 7 B Sentence Template 5.

Use the data on Science 7 B Jake’s Bean Plant Growth Table to complete the following sentence:

5. “Which of the following best completes this sentence?”

Response Option	<i>Response Rationale</i>
a. Best, lower	<i>The student attempts to use scientific data to provide evidence about plant growth but has the temperature data reversed.</i>
b. Faster, higher (Correct)	<i>The student supports an explanation of how environmental factors influence the growth of plants by using scientific evidence from the data table to complete the sentence.</i>
c. Equal, different	<i>The student attempts to use scientific data to provide evidence about plant growth but does not identify the difference in the plant growth data.</i>
<i>Depth of Knowledge (DOK) 3</i>	

Science 7 B Jake's Bean Plant Growth Table

Temperature (°F)	Week 1 (inches)	Week 2 (inches)	Week 3 (inches)	Week 4 (inches)
25°	0	0	0	0
50°	0	1	4	6
65°	1	2	5	8
72°	1	5	8	10

Science 7 B Sentence Template

5) Plant growth was _____ at _____ temperatures.

Science 7 B Attainment Task Questions for Student Use

5. Which of the following best completes this sentence?

Kentucky Academic Standard: Science 7 Life Science 1: Support a scientific explanation using evidence to describe how environmental factors (e.g., availability of food, light, space, water or drought) influence the growth of organisms (plants and animals).

Student Group	Number of Students*	Percent Correct
All students	404	43.07%
Gender		
Female	127	47.24%
Male	277	41.16%
Ethnicity		
African American	51	49.02%
American Indian or Alaska Native	<10	Not Reported
Asian	<10	Not Reported
Hispanic or Latino	21	33.33%
Native Hawaiian or Pacific Islander	<10	Not Reported
White (non-Hispanic)	306	42.16%
Two or More Races	16	43.75%
English Learner	21	42.86%
Economically Disadvantaged	305	40.98%

*Number of students that attempted the item