

Seeds Tell Stories

Use a data table to find patterns and build a clear bar graph.

6.1.c.ii “interpreting, analyzing, and evaluating data construct, analyze, and interpret graphical displays of data”

NAME _____ DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline each phrase that names a measured variable, circle each unit in the table, and number the three data-reading moves in the last paragraph.

Temperature and Bean Seeds

- 1 Scientists often turn a table into a graph so patterns are easier to see. A useful graph has a clear title, labeled axes, and an even scale. In a bar graph, each bar represents one category. The bar height shows a measured amount, so readers can compare categories without guessing.
- 2 A science class tested how temperature affected bean-seed growth. Groups placed the same number of seeds in identical cups with equal soil, water, and light. After seven days, they counted the seeds that had sprouted and measured the average height of the sprouts. Their table records results for four temperatures.

BEAN-SEED RESULTS AFTER SEVEN DAYS

Temperature (°C)	Seeds Sprouted (out of 20)	Average Sprout Height (cm)
15	4	3.1
22	13	8.4
28	16	10.2
35	7	4.0

- 3 To interpret the results, first identify what each column measures and its unit. Then compare values that answer one question at a time. A difference between bars or table entries can show a pattern. A graph can support a claim about these test conditions, but it cannot prove what would happen in every setting.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 Which temperature had the most sprouted seeds? Include the number of seeds.

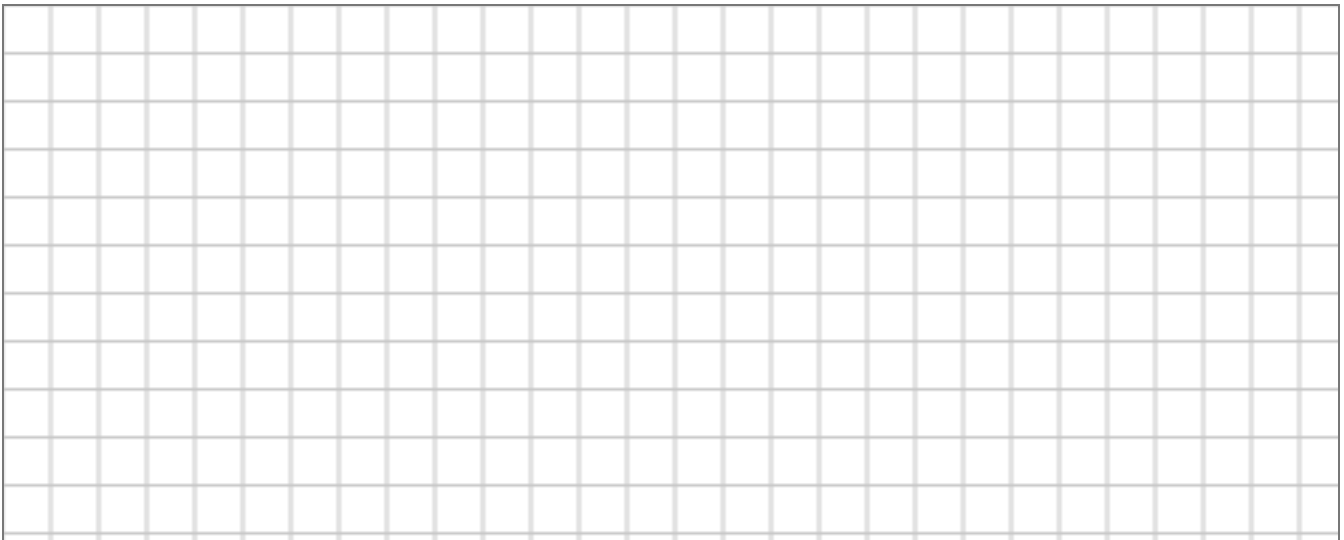
2 How many more seeds sprouted at 22°C than at 15°C?

3 You want to make a bar graph that compares sprout height at all four temperatures. What should the vertical axis be labeled?

4 Write one claim about temperature and average sprout height that is supported by the table. Include two data values.

3 YOUR TURN _____ Your own words

On the graph grid, make a bar graph titled *Light and Leaf Count*. Use these data: 2 hours of light per day, 3 average leaves; 4 hours, 6 leaves; 6 hours, 9 leaves; 8 hours, 11 leaves. Label both axes, use an even vertical scale, and write one claim that compares two bars.



PART 1 • READ AND MARK

Underline each phrase that names a measured variable, circle each unit in the table, and number the three data-reading moves in the last paragraph. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	Which temperature had the most sprouted seeds? Include the number of seeds.	28°C, with 16 seeds sprouted.
2	How many more seeds sprouted at 22°C than at 15°C?	9 more seeds.
3	You want to make a bar graph that compares sprout height at all four temperatures. What should the vertical axis be labeled?	Average Sprout Height (cm)
4	Write one claim about temperature and average sprout height that is supported by the table. Include two data values.	Sample answer: The sprouts at 28°C had a greater average height, 10.2 cm, than the sprouts at 15°C, 3.1 cm.

PART 3 • YOUR TURN (SAMPLE ANSWER)

Bar graph titled Light and Leaf Count, with the horizontal axis labeled Hours of Light per Day and the vertical axis labeled Average Number of Leaves. Use bars for 2 hours = 3, 4 hours = 6, 6 hours = 9, and 8 hours = 11. Claim: Seedlings given 8 hours of light had 8 more average leaves than seedlings given 2 hours of light.

Accept equivalent axis labels, an even scale that reaches at least 11, and correctly sized bars. For claims, accept any accurate comparison that cites two values from the student-created graph.