Data Double Check

Compare a data table and a graph of the same investigation.

4.1.c.iii "interpreting, analyzing, and evaluating data compare two different representations of the same data (e.g., a set of data displayed on a chart and a graph)"

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline the words that tell what the table helps Maya do. Circle the words that tell what the bar graph helps Maya do, then number the sentence that explains why comparing both displays matters.

Bean Seed Results

1. During a class investigation, students placed bean seeds on damp paper towels. They counted how many seeds sprouted after each day. Maya first recorded the results in the data table below. A table organizes exact numbers into rows, so she could check the count for any day. The investigation used the same ten seeds each day.

BEAN SEED SPROUTING RESULTS

Day	Seeds Sprouted
1	1
2	3
3	6
4	8

2. Next, Maya made a bar graph from the very same table. Each bar stood for one day, and its height showed the number of sprouted seeds. The graph made the pattern of increase easy to see at a glance. The table was still useful when Maya needed the exact count, such as the number on day 3.

3. Maya checked both displays before sharing them. She saw that the day labels and seed counts matched in the table and graph. If a bar's height did not match its table number, one display would contain an error. Comparing two representations helps scientists find mistakes and choose the display that best answers a question.

2 ANSWER WITH EVIDENCE

Use the passage

1. What two representations did Maya use to show the bean seed data?

2. Use the table. On which day had 6 seeds sprouted?

3. Compare day 1 and day 4 in the table. How did the number of sprouted seeds change?

4. Which display would help Maya find the exact number of seeds that sprouted on day 3? Which display would help her see the overall increase most quickly? Explain why.

3 YOUR TURN

Your own words

A student counted birds at four bird feeders: Feeder A had 2 birds, Feeder B had 5, Feeder C had 3, and Feeder D had 6. In the left panel, make a data table. In the right panel, make a bar graph with the same data, then write one sentence telling which display helps you compare the feeders most quickly.

ANSWER KEY

Data Double Check

GRADE 4 · 4.1.c.iii

PART 1 · READ AND MARK

Underline the words that tell what the table helps Maya do. Circle the words that tell what the bar graph helps Maya do, then number the sentence that explains why comparing both displays matters. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	What two representations did Maya use to show the bean seed data?	**A data table and a bar graph.**
2	Use the table. On which day had 6 seeds sprouted?	**Day 3.**
3	Compare day 1 and day 4 in the table. How did the number of sprouted seeds change?	**The number increased from 1 seed to 8 seeds, an increase of 7 seeds.**
4	Which display would help Maya find the exact number of seeds that sprouted on day 3? Which display would help her see the overall increase most quickly? Explain why.	**The table gives the exact day 3 count, 6. The bar graph shows the overall increase quickly because the bars get taller.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Left panel table: Feeder A, 2; Feeder B, 5; Feeder C, 3; Feeder D, 6. Right panel bar graph: four labeled bars with heights 2, 5, 3, and 6 for Feeders A, B, C, and D. The bar graph helps me compare the feeders most quickly because I can see that Feeder D has the tallest bar.

Accept equivalent wording that identifies the table for exact values and the bar graph for seeing the overall pattern quickly. For Part 3, check that both student displays use matching feeder labels and counts, and that the written comparison names the bar graph or gives a valid reason for its use.