

Rain Cover Results

Use test evidence to judge a feeder cover.

4.1.c.iv "interpreting, analyzing, and evaluating data analyze data from tests of an object or tool to determine whether it works as intended"

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB In paragraph 1, circle the three phrases that tell what the rain cover must do. In the data table, underline each entry that shows one of those checks failed, so you can judge the cover using evidence.

Testing a Bird Feeder Cover

- ① Maya built a rain cover for a bird feeder from a plastic lid and string. The cover was meant to do three things during rain: keep at least 90 percent of the seed dry, stay attached to the feeder, and leave enough open space for birds to reach the seed. She planned tests for each check.
- ② Maya sprayed the feeder with a hose for ten minutes per trial. She weighed all seed before spraying, then separated and weighed seed that stayed dry to calculate the percent dry. She checked whether the cover stayed attached and whether a bird could reach the seed after spraying. The table shows her results.

RAIN COVER TEST RESULTS

Trial	Seed dry	Cover attached?	Bird reached seed?
1	96%	Yes	Yes
2	92%	Yes	Yes
3	87%	Yes	Yes
4	94%	No	No

- ③ Maya compared the results with her three checks. She saw that most results met a check, yet some results did not. A useful decision must use all four trials, not only the best result. Before using the cover outside, Maya needed to decide whether the failed results showed a problem.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 What are the three checks Maya used to decide whether the rain cover worked?

2 Which trial shows that the seed-dry check failed? Use data from the table.

3 What table evidence shows that the cover did not stay attached every time?

4 Based on all four trials, does the rain cover work as intended? Explain using failed results.

3 YOUR TURN _____ Your own words

Choose a simple tool you could test, such as a paper bridge or pencil holder. Write three sentences: state what it is meant to do, give results from two tests, and decide whether it works as intended.

PART 1 • READ AND MARK

In paragraph 1, circle the three phrases that tell what the rain cover must do. In the data table, underline each entry that shows one of those checks failed, so you can judge the cover using evidence. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	What are the three checks Maya used to decide whether the rain cover worked?	The cover should keep at least 90% of the seed dry, stay attached, and leave space for a bird to reach the seed.
2	Which trial shows that the seed-dry check failed? Use data from the table.	Trial 3. Only 87% of the seed was dry, which is less than 90%.
3	What table evidence shows that the cover did not stay attached every time?	In trial 4, the table says the cover was not attached.
4	Based on all four trials, does the rain cover work as intended? Explain using failed results.	No. Trial 3 missed the seed-dry goal, and in trial 4 the cover came off and the bird could not reach the seed.

PART 3 • YOUR TURN (SAMPLE ANSWER)

My paper bridge was meant to hold 10 pennies without bending. In test 1, it held 10 pennies and stayed flat, but in test 2, it bent under 10 pennies. It does not work as intended, so I would add folded sides.

Accept equivalent wording for the three intended checks and conclusions supported by all of the table data. For Your Turn, accept any simple tool, two relevant test results, and a logical evidence-based decision.