

Watering Plan

Use test data and a model to explain a solution.

2.3.A “develop explanations and propose solutions supported by data and models;”

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline each detail that gives data from the test. Circle the words that tell how the data supports the watering plan.

Which Watering Plan?

- ① Our class tested how much water bean seeds need. We put four seeds in each of four cups. Every cup had the same soil, light, and kind of seed. For seven days, each cup got a different amount of water. The table shows how many seeds sprouted.

BEAN SEED TEST RESULTS

Water Each Day	Seeds That Sprouted
0 cups	0
1 cup	3
2 cups	4
3 cups	1

- ② The 2-cup group had the most sprouts, four. This data supports an explanation: bean seeds need some water, but too much water can cause problems. The 0-cup group did not sprout. The 3-cup group had only one sprout, so extra water did not help in this test.
- ③ Next, the class made a watering plan for new bean seeds. Their model was a cup with soil, a seed, and a label that said “2 cups each day.” The plan uses the test data. They will count sprouts after seven days to check whether the solution works.

2 ANSWER WITH EVIDENCE _____ Use the passage

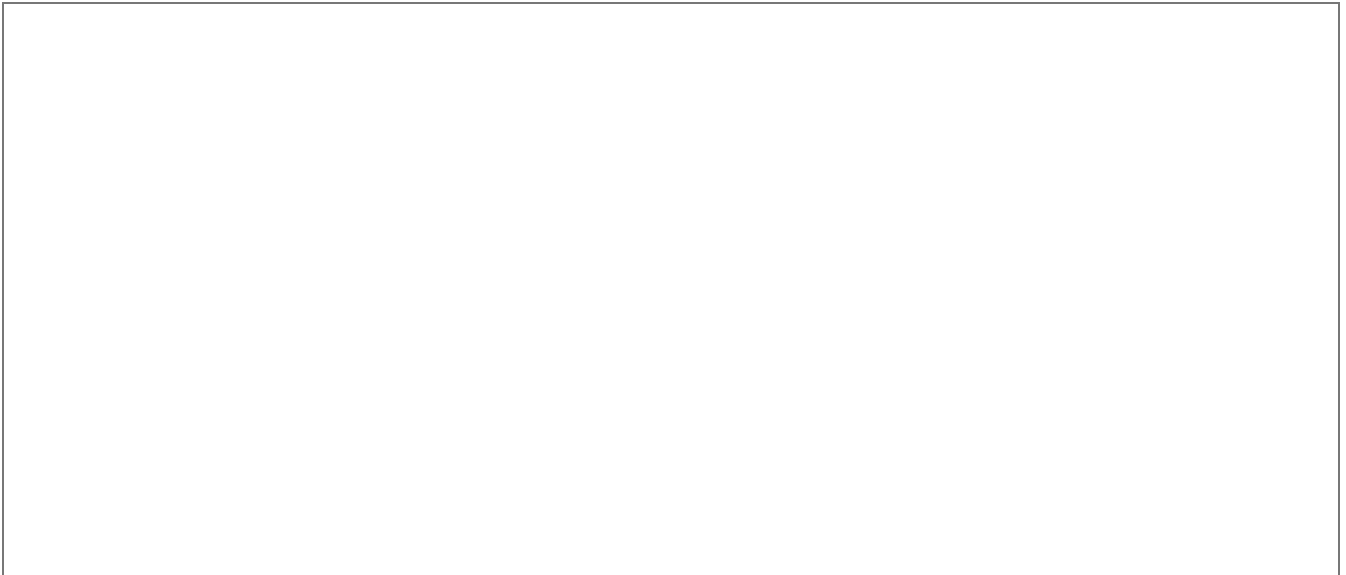
1 What explanation about water do the test data support?

2 Which two data results show that no water and extra water did not help the seeds sprout?

3 What solution did the class propose, and how will they check whether it works?

3 YOUR TURN _____ Your own words

A class tested three paper bridges. A flat bridge held 2 pennies, a folded bridge held 6 pennies, and a rolled bridge held 4 pennies. Draw a model of the best bridge, then write two sentences that use the data to explain why it is the best solution.



PART 1 • READ AND MARK

Underline each detail that gives data from the test. Circle the words that tell how the data supports the watering plan. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	What explanation about water do the test data support?	In this test, bean seeds needed some water, but too much water caused problems.
2	Which two data results show that no water and extra water did not help the seeds sprout?	The 0-cup group had 0 sprouts, and the 3-cup group had 1 sprout.
3	What solution did the class propose, and how will they check whether it works?	They will give new bean seeds 2 cups of water each day. After seven days, they will count the sprouts.

PART 3 • YOUR TURN (SAMPLE ANSWER)

Model drawing: a folded paper bridge labeled "folded." The folded bridge is the best solution because it held 6 pennies. It held more pennies than the flat bridge, which held 2, and the rolled bridge, which held 4.

Accept explanations that correctly connect the 2-cup result to the proposed watering plan and describe counting sprouts as the check. For Your Turn, accept a recognizable folded-bridge model and two sentences that cite its 6-penny result and compare it with at least one other result.