Bean Plant Clues

Use plant observations to connect surroundings and traits.

3.7 "Use evidence to support a claim that traits can be influenced by the environment."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline the different conditions Maya gave each pair of pots, then circle the plant traits she measured or described so you can connect each condition to evidence.

Maya's Bean Plants

1. Maya planted four bean seeds from the same packet in four equal pots. She used the same soil and placed each pot in a warm room. She wanted to learn whether the surroundings could affect how the plants grew. A plant's height and the look of its leaves are traits. Maya checked the pots each day for three weeks.

2. For the first test, Maya gave pots A and B the same amount of water. Pot A sat by a sunny window. Pot B sat on a shelf with much less light. After three weeks, plant A was 15 centimeters tall, with broad green leaves. Plant B was 9 centimeters tall, with smaller leaves. Both plants were alive.

3. For the second test, pots C and D both sat by the same sunny window. Maya gave pot C water when its soil began to dry. She gave pot D only a tiny splash each week. After three weeks, plant C was 14 centimeters tall, with firm leaves. Plant D was 6 centimeters tall, with drooping leaves. Maya wrote down what she saw.

2 ANSWER WITH EVIDENCE

Use the passage

1. What claim can you make about light and plant height? Use the heights of plants A and B as evidence.

2. What evidence suggests that light affected the size of the leaves?

3. What claim can you make about water and plant height? Use the heights of plants C and D as evidence.

4. What evidence suggests that water affected how the leaves looked?

3 YOUR TURN

Your own words

In a new test, two bean plants got the same water and light. The plant given plant food grew to 18 centimeters, while the plant without plant food grew to 11 centimeters. In two or three sentences, make a claim about plant food and height, use both heights as evidence, and name what stayed the same.

ANSWER KEY

Bean Plant Clues

PART 1 · READ AND MARK

Underline the different conditions Maya gave each pair of pots, then circle the plant traits she measured or described so you can connect each condition to evidence. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	What claim can you make about light and plant height? Use the heights of plants A and B as evidence.	**More light may help bean plants grow taller. Plant A got more light and grew to 15 centimeters, while plant B got less light and grew to 9 centimeters.**
2	What evidence suggests that light affected the size of the leaves?	**Plant A got more light and had broad leaves. Plant B got much less light and had smaller leaves.**
3	What claim can you make about water and plant height? Use the heights of plants C and D as evidence.	**More water may help bean plants grow taller. Plant C got more water and grew to 14 centimeters, while plant D got only tiny splashes and grew to 6 centimeters.**
4	What evidence suggests that water affected how the leaves looked?	**Plant C got more water and had firm leaves. Plant D got only tiny splashes of water and had drooping leaves.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Plant food may help bean plants grow taller. The plant given plant food grew to 18 centimeters, while the plant without it grew to 11 centimeters. Both plants got the same water and light.

Accept claims that say the conditions may have affected the traits, supported by the matching observations. Do not require students to say that one test proves the cause.