Spotting a Leak in a Plant Gas Chamber

Scoring guide · one credit per question · review written work against each rubric

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Question 1

The reading is unchanged over ten minutes in the sealed blank. That supports interpreting the change in the sealed plant chamber as related to the plant under these conditions, rather than drift shown by the blank.

Question 2

(570 − 650) ppm ÷ 10 min = −8 ppm/min. The negative sign indicates falling CO_2 concentration.

Question 3

Choice (1)

The no-plant, unlatched chamber also lost CO_2, so a drop in that setup can occur without uptake by a plant.

Question 4

Measure CO_2 change over the same interval in sealed chambers or repeated sealed tests at two light levels. Keep starting CO_2, chamber volume, temperature, or another relevant variable the same. Accept an equivalent test that isolates light level.