

BOTANY, PLANT PHYSIOLOGY AND PLANT GROWTH

Lesson 8: ENVIRONMENTAL FACTORS

Teacher's Answer Sheet

Segment One – Light - Draw a line to connect the term with its related action.

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| Light quantity | b. | Move a plant from full shade to full sun. |
| Light quality | a. | Grow plants under light bulbs emitting all colors of the light spectrum. |
| Light duration | c. | Block light on chrysanthemums for a few hours each day. |

Segment Two - Temperature - Draw a line to connect the process with the related idea.

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|------------------------|----|---|
| Photosynthesis | d. | This process increases, to a point, as temperature rises. |
| Photosynthesis example | b. | To encourage growth, move heat-loving palms from outdoor to heated to optimum growing temperatures. |
| Respiration | a. | This process rapidly increases as temperature rises, and can do a reverse process. |
| Respiration example | c. | To conserve sugar reserves, reduce nighttime temperatures 15 degrees and increase daytime temperatures. |

Segment Three – Water - Mark T or F for True or False.

- F If temperatures increase, then transpiration decreases.
- F Warm air will hold less water vapor than cold air.
- T If air movement increases, then transpiration increases.
- F Water helps stabilize plant temperatures through condensation.
(It is through evaporation, not condensation.)
- T If humidity increases, then transpiration decreases.
- F Stomata do not operate during transpiration.
- T If water is depleted, then photosynthesis will stop.