

# Multiple-choice test

## Chapter 6: Plant nutrition

Click on the correct answer to each question.

- 1 What is the function of chlorophyll?
  - A to absorb light energy
  - B to attract sunlight
  - C to make a leaf look green
  - D to store starch grains
- 2 How does carbon dioxide get into a leaf?
  - A into the root hairs and up through the xylem
  - B into the stem and up through the phloem
  - C through the stomata
  - D through the upper epidermis
- 3 How does water get into a leaf?
  - A into the root hairs and up through the xylem
  - B into the stem and up through the phloem
  - C through the stomata
  - D through the upper epidermis
- 4 In which leaf tissue does most photosynthesis take place?
  - A upper epidermis
  - B palisade mesophyll
  - C spongy mesophyll
  - D lower epidermis
- 5 When testing a leaf for starch, why is the leaf placed in hot alcohol?
  - A to break down the starch
  - B to destroy the enzymes in the leaf
  - C to extract the chlorophyll from the leaf
  - D to kill the leaf cells

- 6 Why do plants need magnesium?
- A to make chlorophyll
  - B to make proteins
  - C to supply energy
  - D to supply vitamins
- 7 Which energy transfer takes place in photosynthesis?
- A chemical energy to kinetic energy
  - B kinetic energy to light energy
  - C electrical energy to light energy
  - D light energy to chemical energy
- 8 Which feature of a leaf adapts it for absorption of sunlight?
- A air spaces in the spongy mesophyll
  - B a large surface area
  - C a waterproof cuticle over the upper epidermis
  - D stomata in the lower epidermis
- 9 When leaves photosynthesise, they make carbohydrates. In what form is the carbohydrate transported to other parts of the plant?
- A cellulose
  - B glucose
  - C starch
  - D sucrose
- 10 Which factor could **not** be a limiting factor for photosynthesis?
- A carbon dioxide concentration
  - B light intensity
  - C oxygen concentration
  - D low temperature