

8. Transport in plants

Starter Quiz · 课前小测

IGCSE Biology

Name: _____ Score: _____

1. Xylem transports:

- ☐ water and minerals up the plant
- ☐ sugars down the plant
- ☐ oxygen to the roots
- ☐ sugars to the leaves

2. Water enters a root hair cell by:

- ☐ osmosis
- ☐ active transport
- ☐ respiration
- ☐ photosynthesis

3. Transpiration is the loss of:

- ☐ water vapour from the leaves
- ☐ sugars from the roots
- ☐ oxygen from the stomata
- ☐ minerals from the soil

4. Translocation is the transport of:

- ☐ sugars in the phloem
- ☐ water in the xylem
- ☐ oxygen in the blood
- ☐ minerals in the roots

5. Phloem transports:

- ☐ sugars made in the leaves
- ☐ only water
- ☐ only minerals
- ☐ oxygen

6. Which increase the rate of transpiration? (Select all that apply.)

- ☐ more wind
- ☐ higher temperature

☐ more light

☐ higher humidity

Tick every correct option.

7. Phloem can transport substances both up and down the plant.

☐ True ☐ False

8. Evaporation of water from the leaves helps pull water up the plant.

☐ True ☐ False

9. A plant wilts if it loses water faster than it can take it up.

☐ True ☐ False

10. Phloem can carry sugar both up and down the plant, depending on need.

☐ True ☐ False

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Answers · 答案

IGCSE Biology

1. water and minerals up the plant

Xylem carries water and minerals upward.

2. osmosis

Water moves in by osmosis down the water gradient.

3. water vapour from the leaves

Transpiration is water vapour loss, mainly through stomata.

4. sugars in the phloem

Translocation moves sugars in the phloem.

5. sugars made in the leaves

Phloem carries sugars (translocation).

6. more wind; higher temperature; more light

Higher humidity slows transpiration; the others speed it up.

7. True

Translocation moves sugars to wherever they are needed.

8. True

This creates the transpiration stream.

9. True

Flaccid cells can no longer support the plant.

10. True

Direction depends on where the sources and sinks are.