

KEY FACTS

- Xylem: dead cells, water + minerals upward (transpiration stream)
- Phloem: living cells, dissolved sugars (translocation), both directions
- Transpiration rate increases with: higher temp, more light, lower humidity, more wind
- Guard cells: turgid = open stomata; flaccid = close stomata

KEY TERMS

Transpiration	Water evaporation from leaves through stomata
Translocation	Sugar transport in phloem
Xylem	Dead vessels — water upward
Phloem	Living cells — sugars, any direction

■ EXAM TIP: Transpiration ≠ Translocation. Water in xylem going UP. Sugars in phloem going anywhere.