

8.4 Translocation

Name: _____ Class: _____ Date: _____ **Total: 6 marks**

KEY WORDS sinks • translocation • sources • phloem • sucrose

Objective

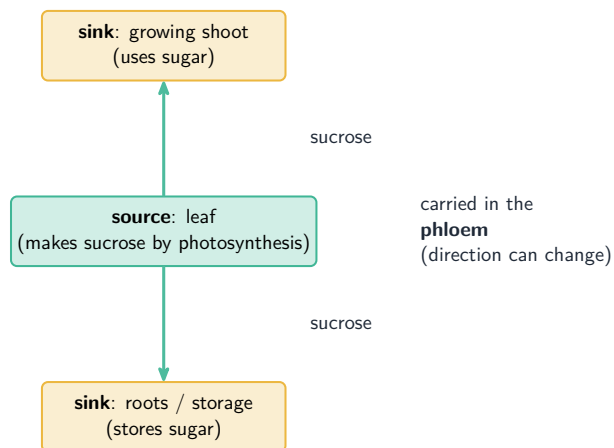
Build the skills to answer exam questions on **translocation** – the movement of sucrose and amino acids in the phloem from **sources** to **sinks**.

You must be able to:

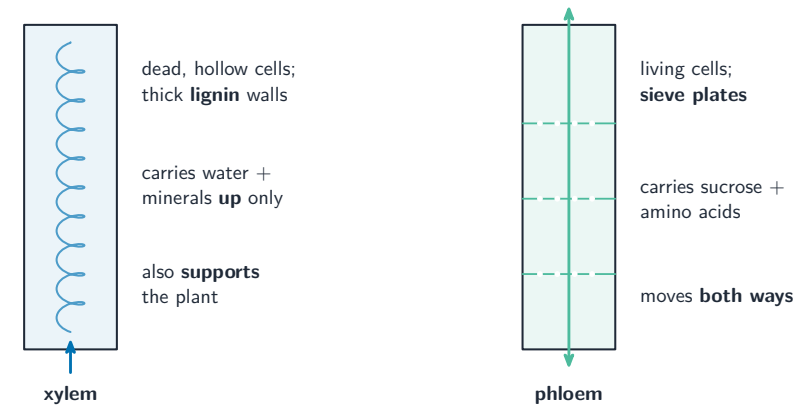
- define translocation
- identify sources and sinks
- explain why the direction can change

1 Key knowledge and worked examples

■ Sources and sinks



Translocation moves sucrose/amino acids from a source to a sink; the direction can change



Translocation moves sugars in the phloem

- **source:** releases sucrose (e.g. a photosynthesising leaf, or a store being used).
- **sink:** uses or stores it (e.g. growing roots, a storage organ).

2 Practice

2.1 Define translocation. [1]

2.2 Give one example of a source. [1]

3 Exam-style questions

3.1 Translocation moves substances in the: [1]

- ☐ **A** xylem, upward only
- ☐ **B** phloem, from source to sink
- ☐ **C** xylem, from leaves to roots
- ☐ **D** air spaces

3.2 A leaf making sugar in summer acts as a source.

(a) Name a sink that the sugar might be transported to. [1]

(b) Explain why a potato tuber can be a sink in summer but a source in spring. [2]
