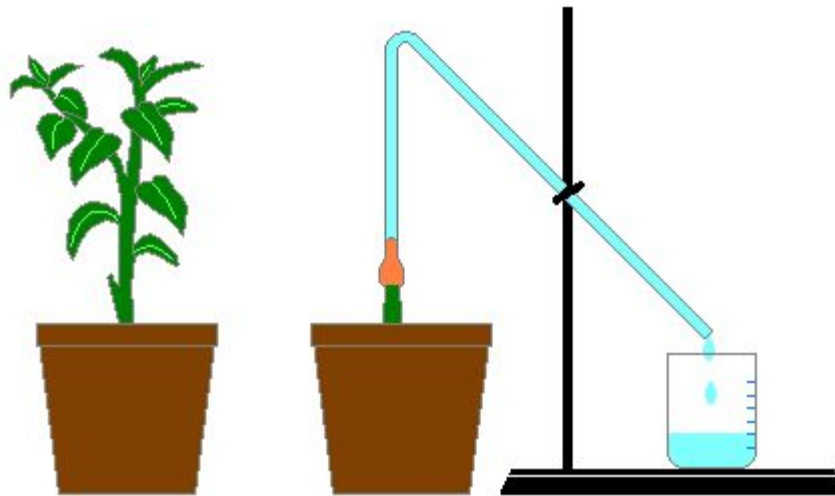
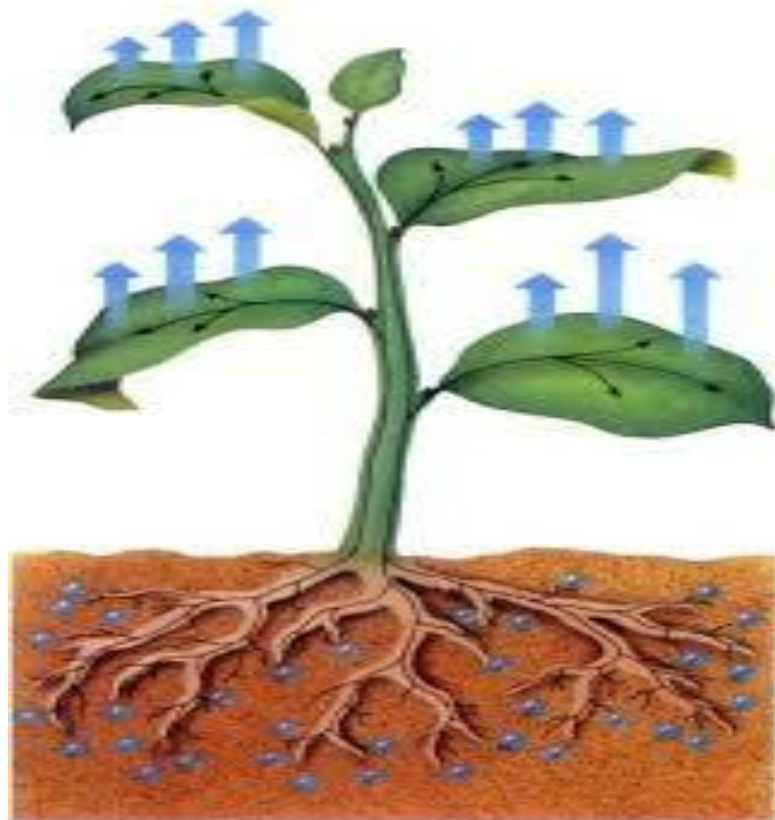


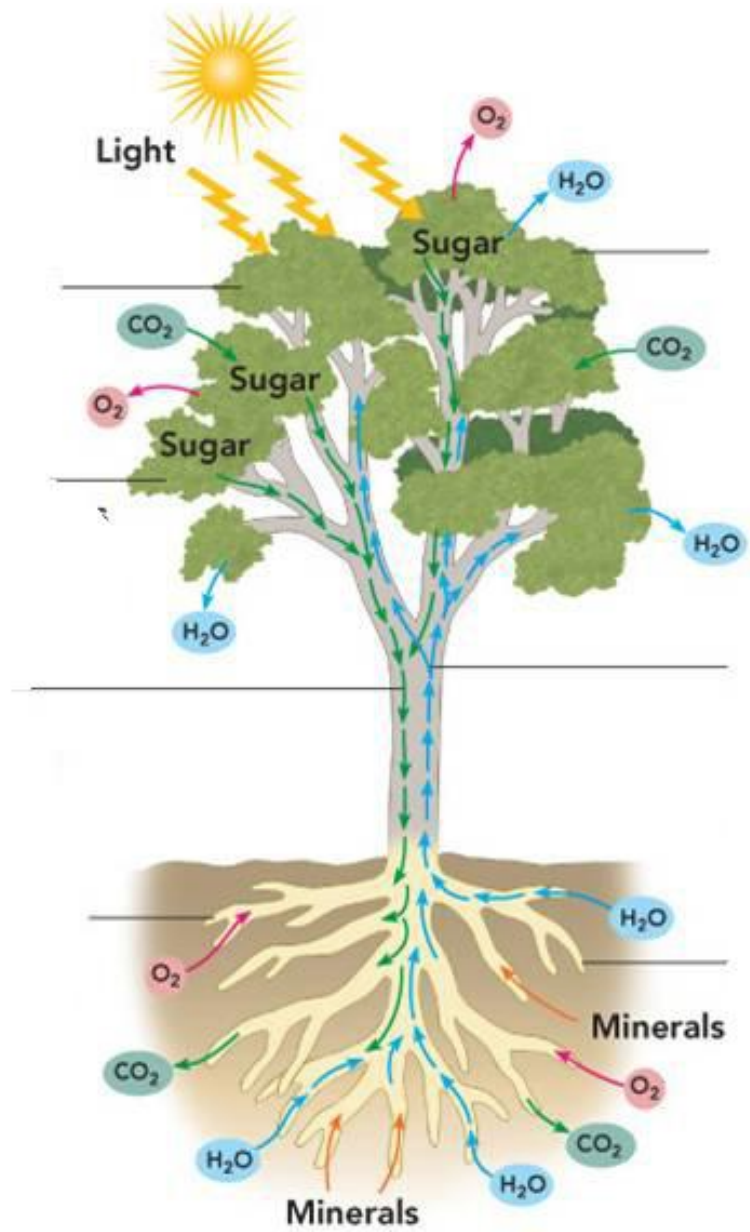
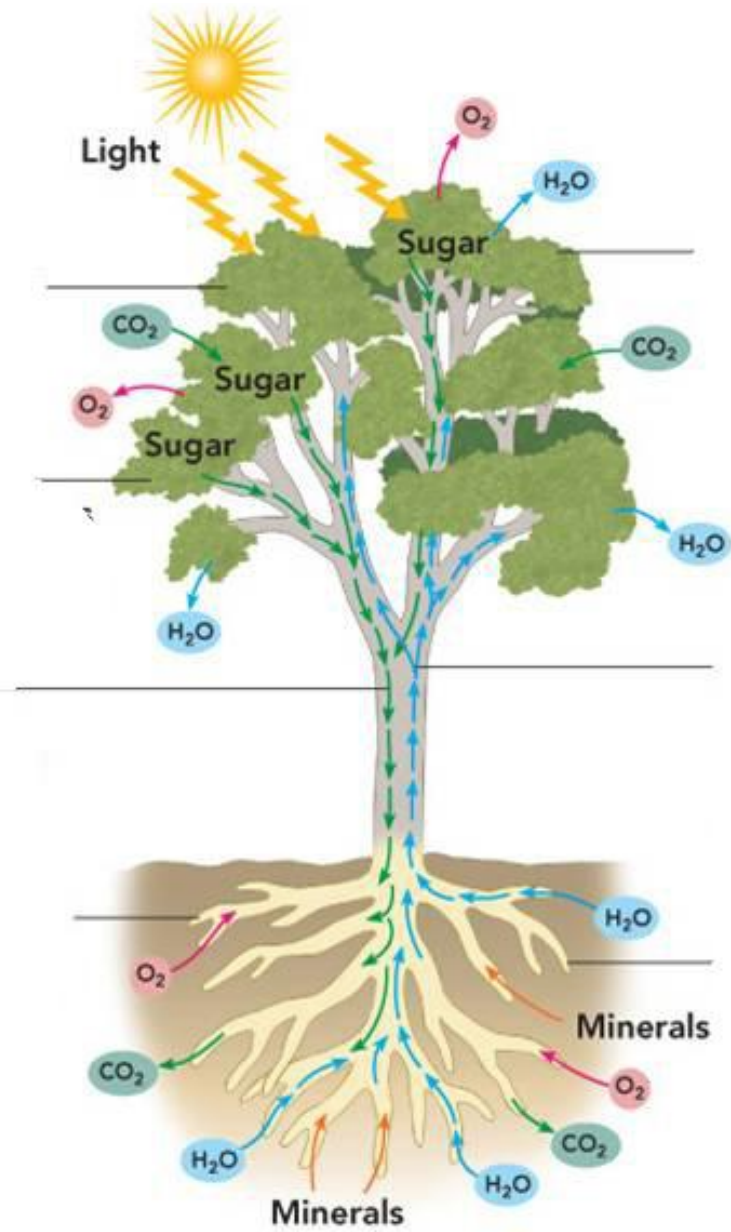
Осмос құбылысы

Осмотық қысым - ерітінді диффузиясы кезіндегі ерітілген заттың шала өткізгіш мембрана арқылы тудыратын асқын қысымы.





**Су және қоректік заттар
өсімдік жасушасына қалай
сіңіріледі және қалай
таралады?**



A water potential gradient creates tension

Outside air Ψ
= -10.0 to
-100.0 MPa

Leaf Ψ (air spaces)
= -7.0 MPa

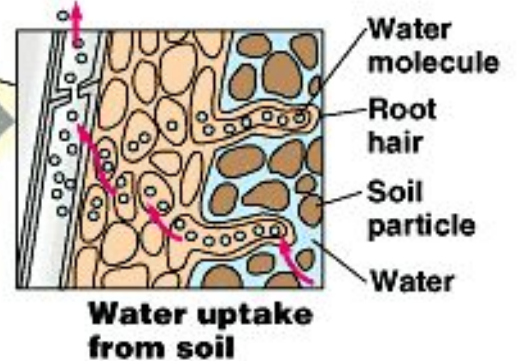
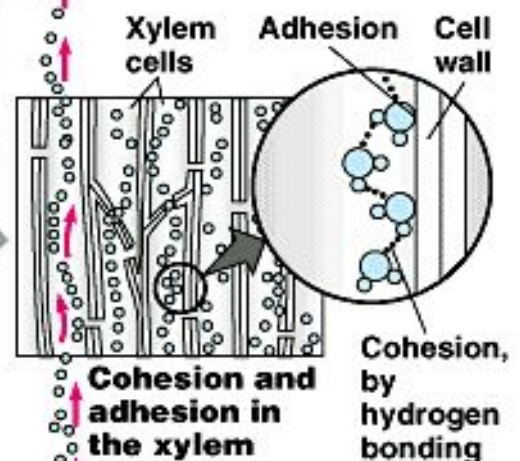
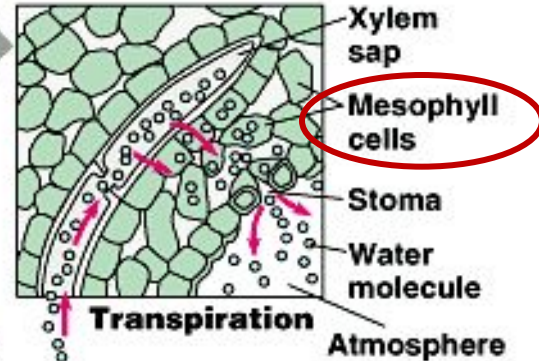
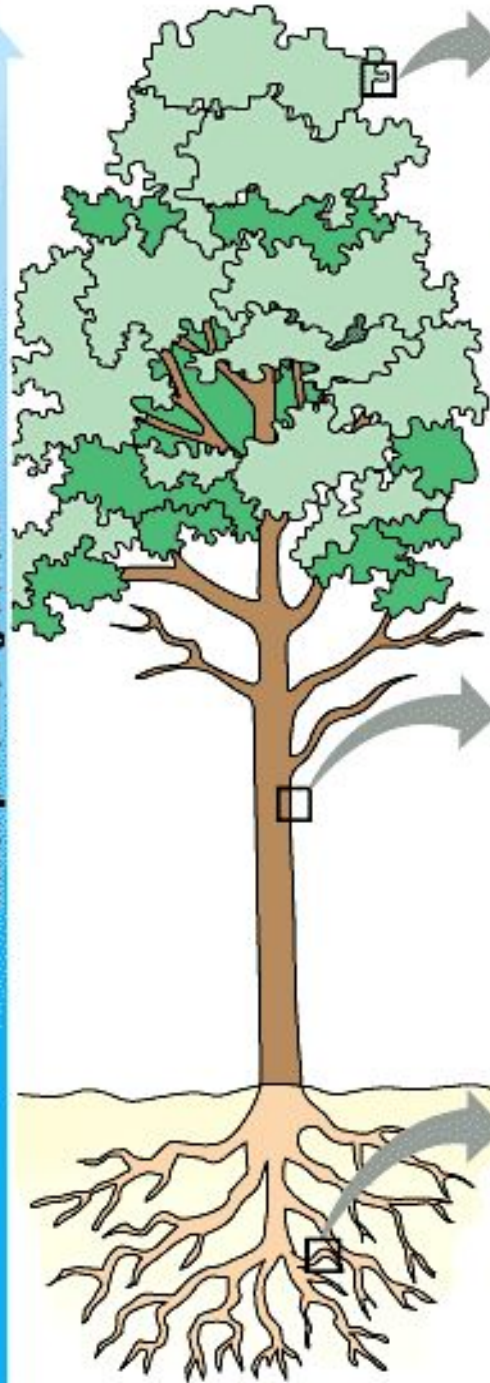
Leaf Ψ (cell walls)
= -1.0 MPa

Trunk xylem Ψ
= -0.8 MPa

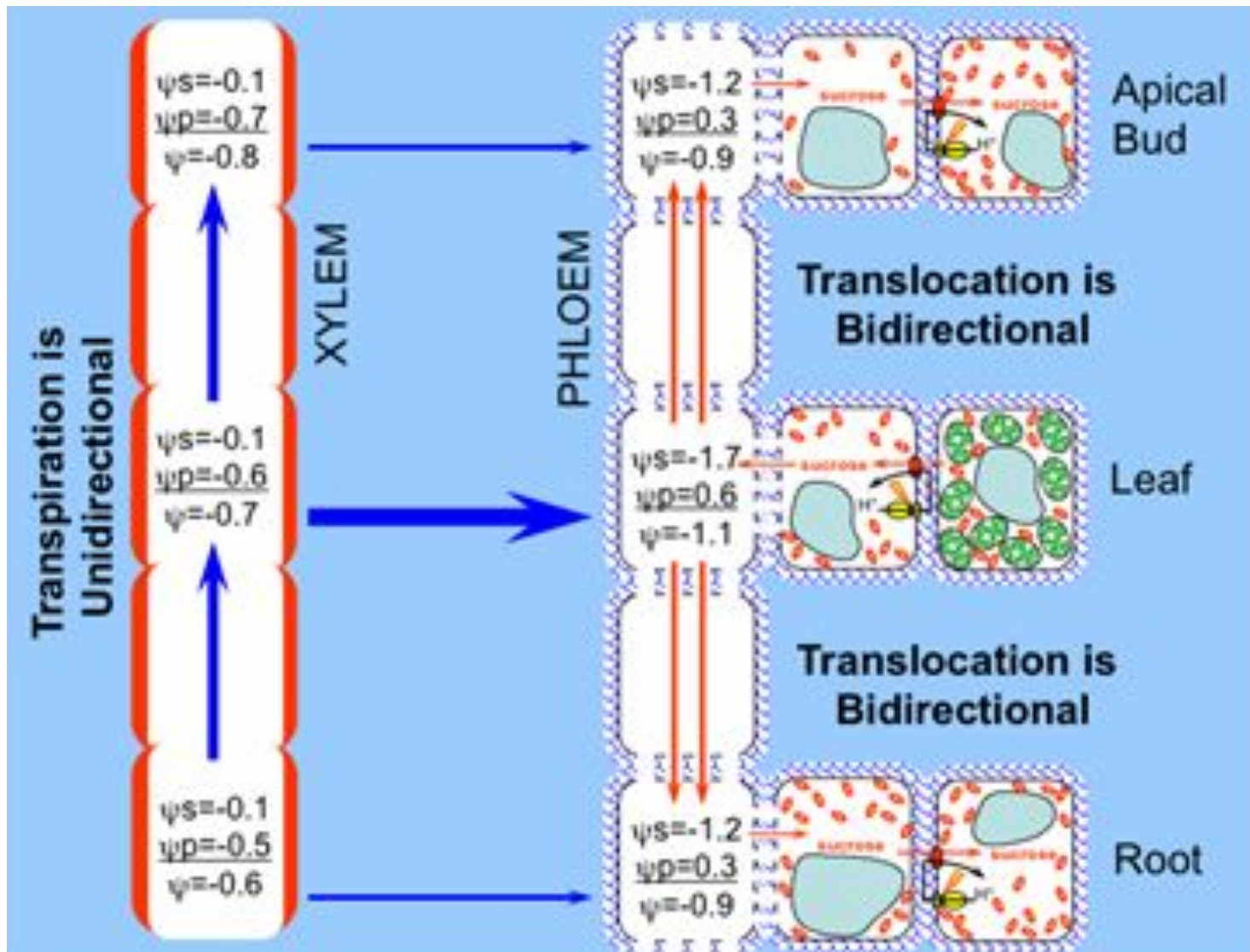
Root xylem Ψ
= -0.6 MPa

Soil Ψ
= -0.3 MPa

Water potential gradient



Өсімдік арқылы су/минералды тұздар мен органикалық заттардың қозғалысы



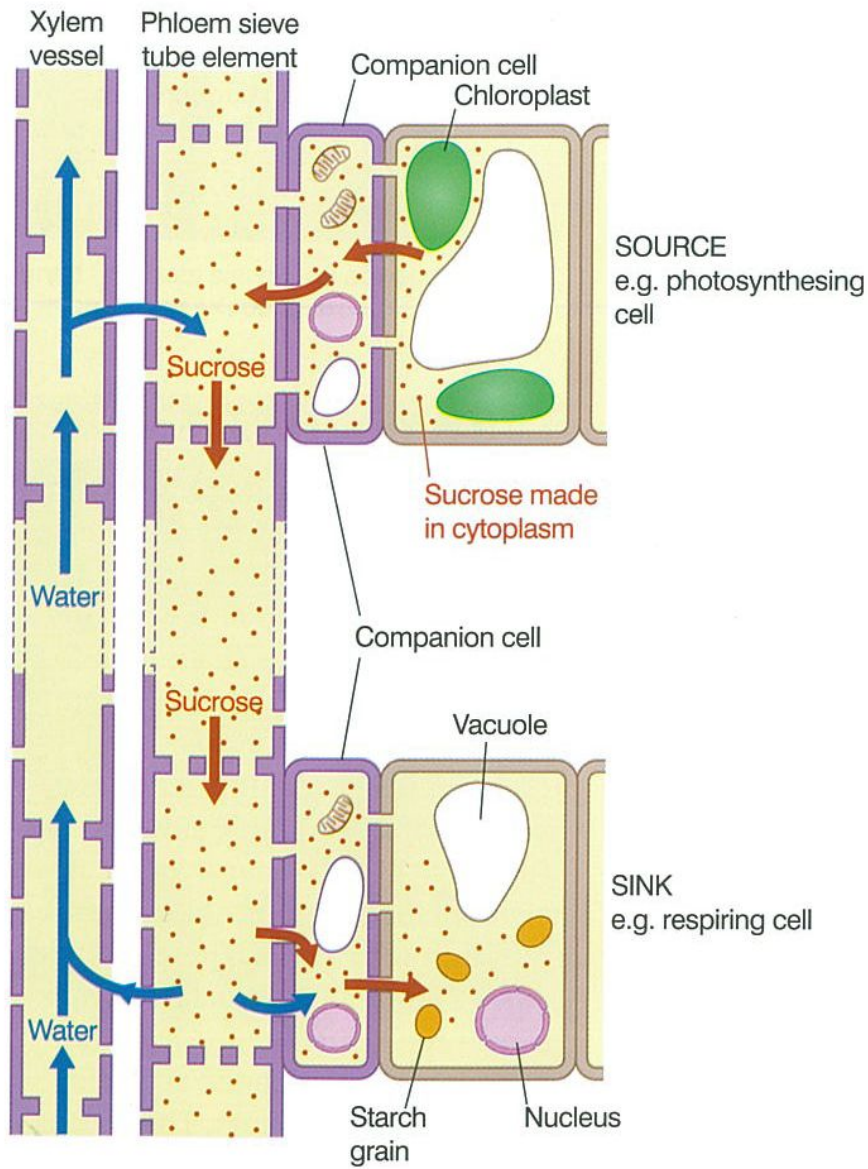
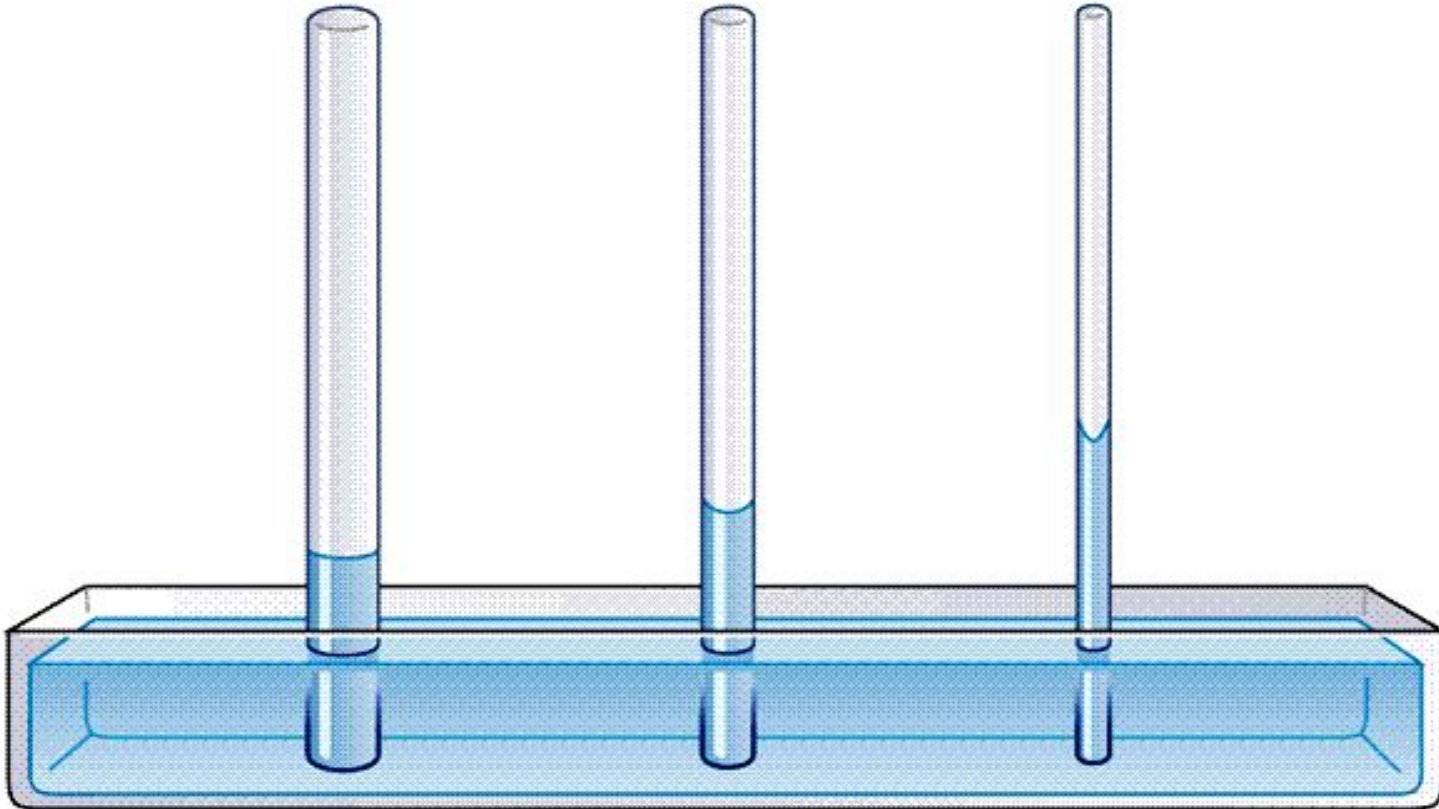


Figure 1 Movement of sucrose from source to sink through the phloem of a plant

Adhesion and cohesion

Kingsley R. Stern, Botany Visual Resource Library © 1997 The McGraw-Hill Companies, Inc. All rights reserved.

Capillarity in Narrow Tubes



Vocabulary

- Тамыр - root
- Сабақ - stem
- Жапырақ - leaf
- Ксилема - xylem
- Флоэма - phloem
- Осмос - osmosis
- Диффузия - diffusion
- Жоғарғы концентрация - high concentration
- Төменгі концентрация - low concentration