**Transport in Vascular Plants**

Ch 36

**Review**:

Membrane selectively

Passive transport:

Transport protein:

Facilitated diffusion:

Active transport:

Chemiosmosis:

**Overview of transport**: **Fig 36.2**

Proton pump:

Membrane potential:

Cotransport

**(Fig 36.4)**

**Water potential**:

Osmosis:

Water potential:

Solute potential:

Pressure potential:

**(Fig 36.5)** & **(Fig 36.6)**

Plasmolysis:

Turgor pressure:

Aquaproin protein: 

**Vacuolated plant cells**: **(Fig 36.8 a)**

Central vacuole:

Tonoplast:

Symplast:

Plasmodesmata:

Apoplast:

**Transport over short distance**: **(Fig 36.8 b)**

Transmembrane route:

Apoplastic route:

Symplastic route:

**Long distance transport**: **(Fig 36.2)**

Bulk flow:

**Absorption of water & minerals**:

**(Fig 36.9)**

Epidermal cells

Mycorrhizal fungi:

Endodermis**:**

Casparian strip:

**Roots to Leaves**:

Transpiration:

Guttation:

**Transpiration-Cohesion-Tension Mechanism**

**(Fig 36.12)**

**Cohesion / Adhesion**

**(Fig 36.13)**

Cohesion:

Adhesion:

**Stomata**:

Gas exchange:

Control water loss:

**(Fig 36.15)**

Guard cells:

Stimuli to open stomata

**Movement of Sugar**:

Phloem sap:

Sugar source:

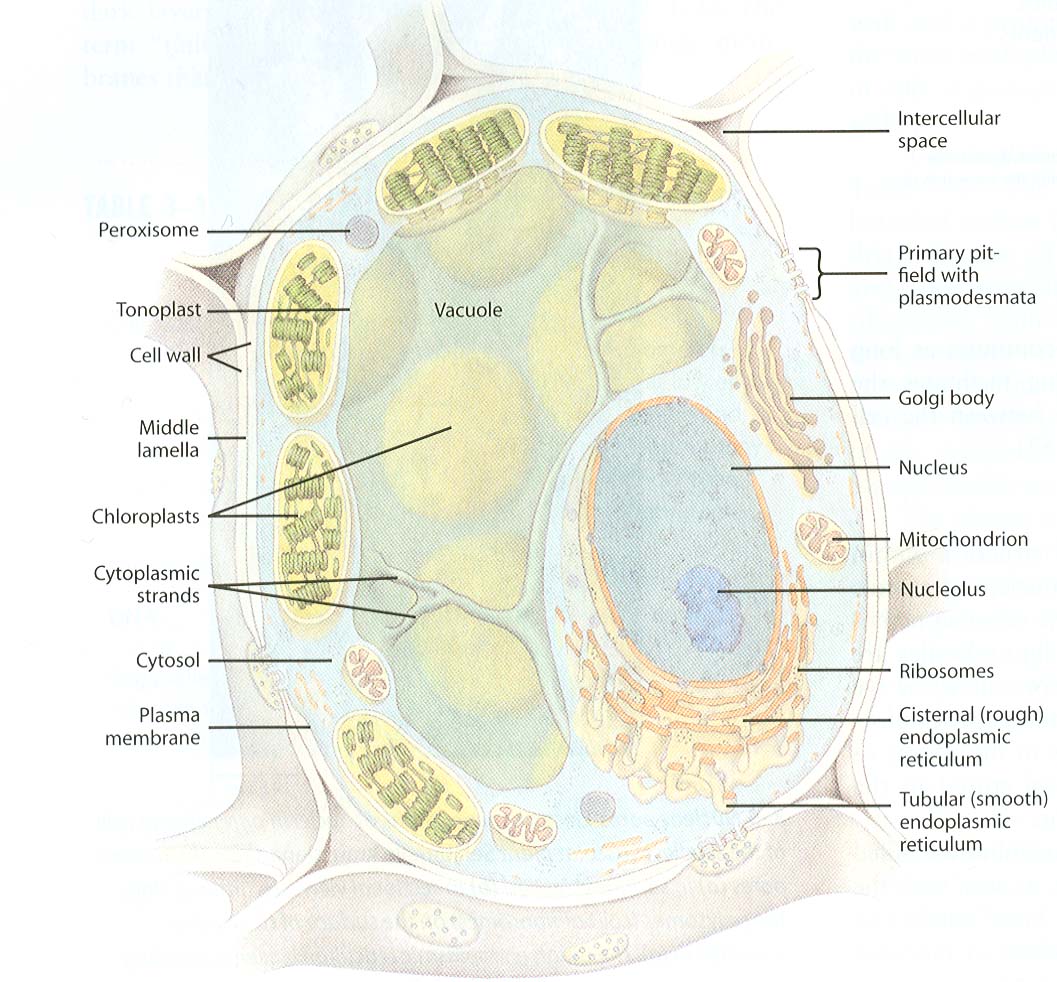
Sugar sink:

Direction of flow in phloem

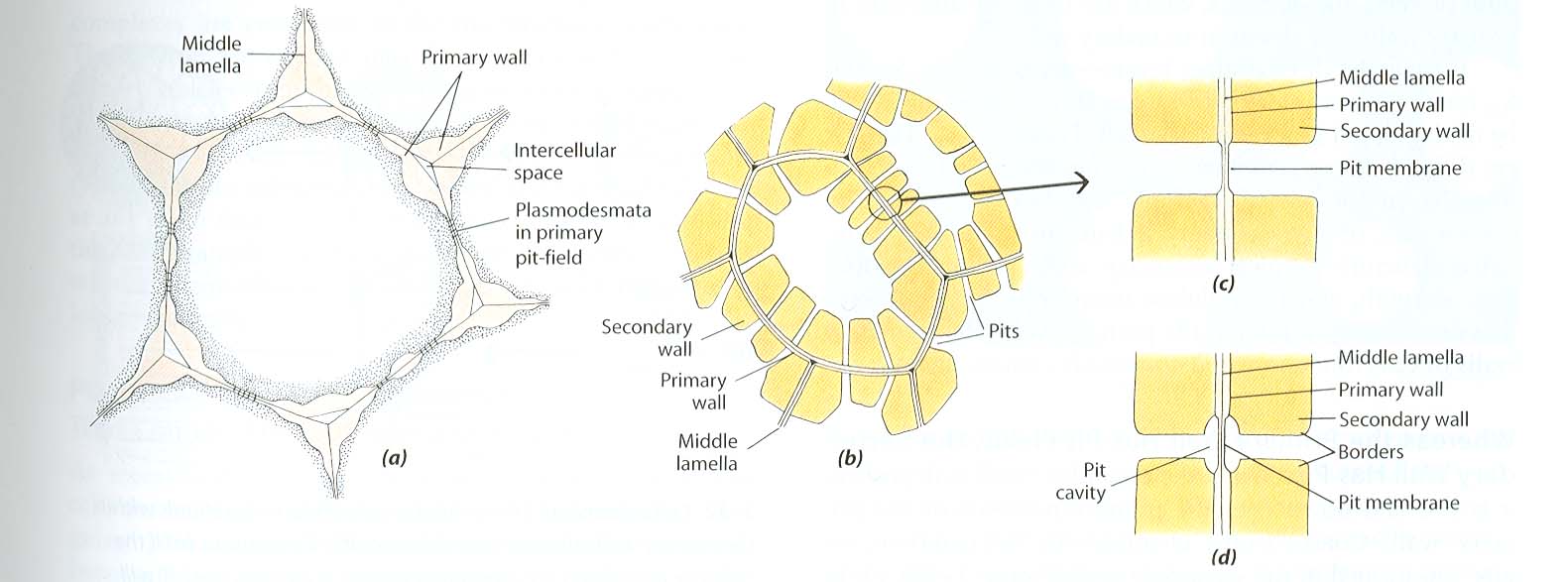
**(Fig 36.18)**

**(Fig 36.19)**

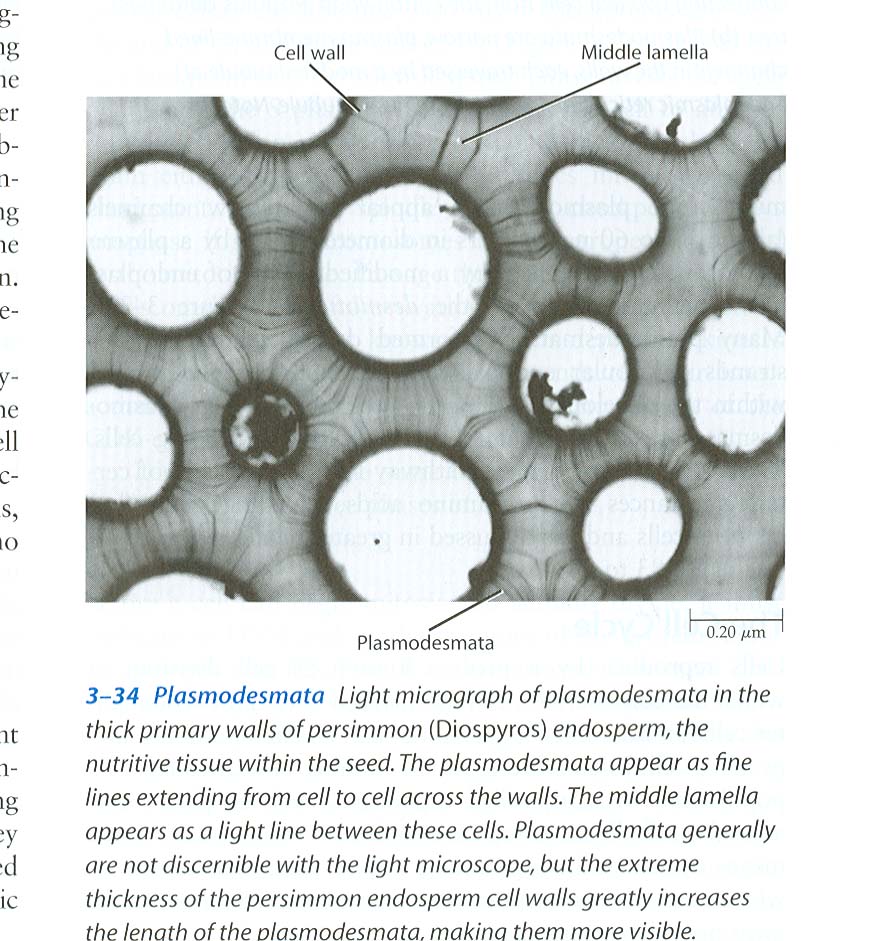
Plant cell - plasmodesmata



Plasmodesmata



Plasmodesmata



Water transport into the root.

