

STEMS

Functions of the Stem			The Pressure Flow Hypothesis was proposed to explain the mechanism of phloem translocation. When there is a high concentration of sugar inside cells of the phloem at a leaf it creates a diffusion gradient that draws water into the cells. Movement occurs by bulk flow; sap then moves from the sugar sources to sugar sinks by means of turgor pressure. During the plant's growth period in the spring the storage organs, the roots, are sugar sources, and the plant's many growing areas are sugar sinks. The movement in phloem is bidirectional, while the xylem only transports upward.
Conduction	Produce New Growth	Reproduction	
Support	Storage	2 Types of Stems	
		Herbaceous	
		Woody	
Stems are Not Roots			
Nodes	Internodes	Buds	
Early Wood	Late Wood	Succulents	
Dendrochronology		Types of Growth	
		Primary Growth	Secondary Growth
Rhizomes	Stolons	Movement of Water	
		Root Pressure	Traspirative Pull