DIVERSITY OF LIFE Name: Schwartz

As you read pages 31 – 39 complete the chart below with information you find relevant/important.

Plant Part/Tissue	Structure (the way that something is built, arranged, or organized)	Function (what it does)
Seeds		
seed coat	tough, almost airtight covering	protects the seed
embryo	small plant like	grow into new plant
cotyledon	starch, solid	provide energy for the seed

Adaptations of seeds:

- long dormancy: useful trait if the plant lives in a region that has little rain
- germinate in extreme conditions: produce 2 seeds; one for normal conditions, other for high heat. this assures that the species will live

Root Systems		
root	grows downward ~~too~~ fingerlike	brings in water, holds plant in
root hairs	hairlike fingers	absorbs water
xylem	hollow tube	transports water in plant
fibrous root systems	many small roots	holds plant in place
taproot systems	one or more large roots	holds plant in place

prop roots	at base of stalk	Keep it upright
Stems & Leaves		
stem cell wall	rigid but flexible; cellulose	provides structure
buttresses	large bracing structure	effectively broaden base for stability
tendrils	vines have them	attach to other structures
Specialized stems: desert plants	no green leaves	Keep water
Specialized stems: redwood	thick shaggy bark	keeps from getting too hot
Specialized stems: cedar	chemicals = poisonous	Kill insects & fungi
vascular bundles—xylem	bundle of tubes	brings water and minerals to cells
vascular bundles--phloem	tube like	takes sugar
chloroplasts	cells under surface	capture sunlight
epidermis	cells top & bottom	outer covering
cuticle	waxy layer	cover epidermis
stomata	guard cells open & close	regulate water
guard cells		