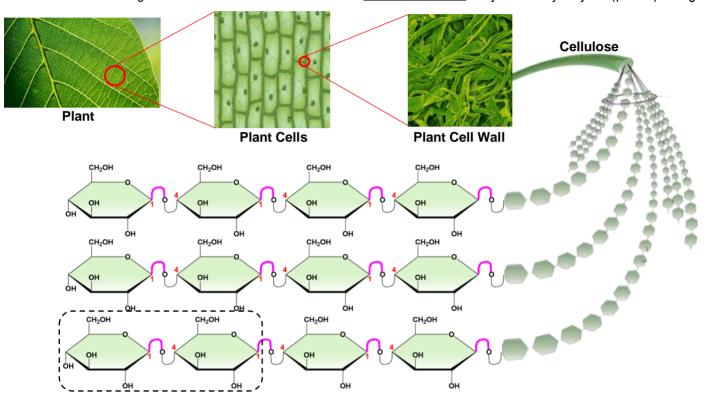
CONCEPT: CELLULOSE

Polysaccharide	Type	Repeating Sugar(s)	Glycosidic Linkage	Function	Organism	Branched?
Cellulose		D	1,4			

 \Box Cellulose: *indigestible* to most animals due to lack of _____ enzyme that hydrolyzes ($\beta 1 \rightarrow 4$) linkages.



PRACTICE: Which statement about cellulose is true?

- a) It's a highly branched polysaccharide.
- b) It's the main storage polysaccharide in some strains of dogs.
- c) It cannot be digested by any animal.

- d) Its D-fructose residues have α configuration.
- e) It's a homopolysaccharide of D-glucoses.
- **PRACTICE**: Cellulose is composed of which of the following monosaccharides covalently bonded together in a long chain?
 - a) α -glucose.

- c) β-glucose.
- e) Peptidoglycan.

b) Amino acids.

- d) Cellobiose.
- f) Chitin.

PRACTICE: Cellulose fibers most closely resemble _____ in proteins.

- a) α -helices.
- b) β-sheets
- c) β -turns.
- d) Coiled-coils.