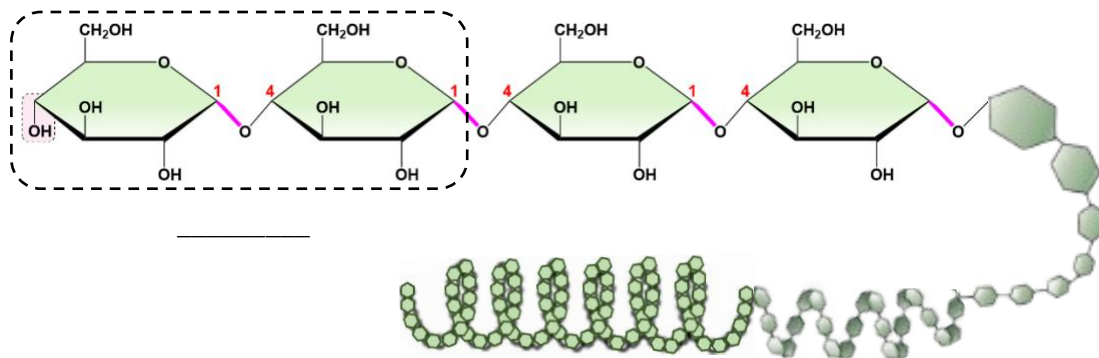


CONCEPT: STARCH

Starch: Amylose & Amylopectin

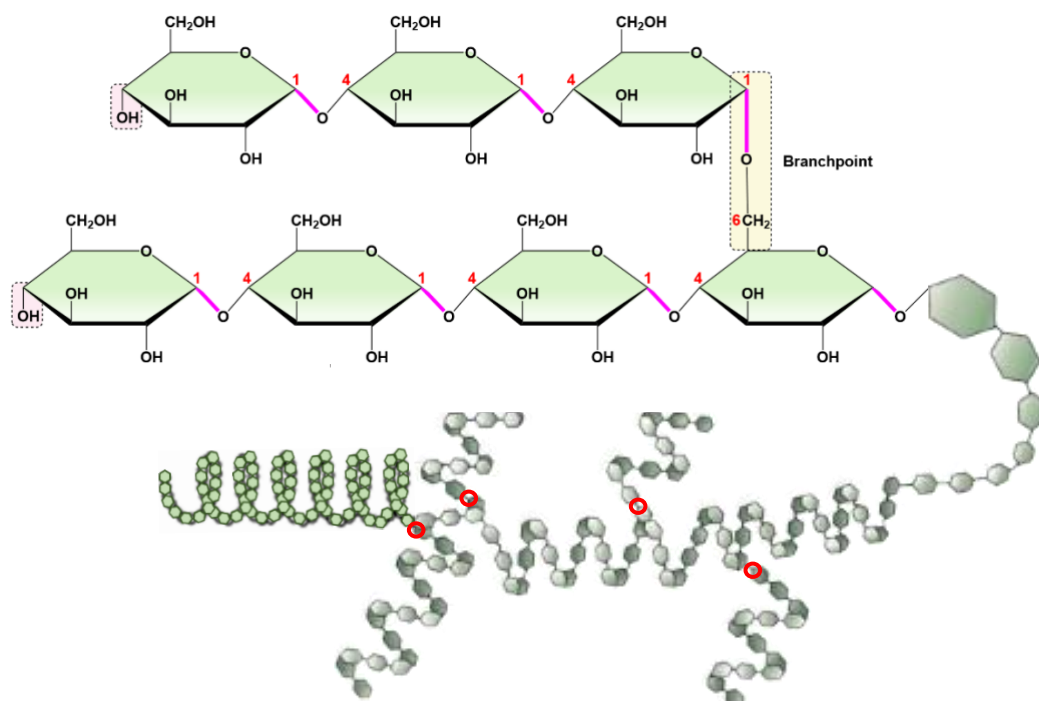
Polysaccharide	Type	Repeating Sugar(s)	Glycosidic Linkage	Function	Organism	Branched?
Starch ↗ Amylose ↘ Amylopectin	_____	D-_____	_____-1,4_____	_____-Storage_____	_____	_____
	_____	_____	_____	_____	_____	_____ (α-1, _____)

Amylose is an Unbranched Form of Starch



Amylopectin is a Branching Form of Amylose

- Amylopectin *branchpoints* occur every 24-30 residues via (α1→____) glycosidic linkages.



CONCEPT: STARCH

PRACTICE: Which of the following is a structural polysaccharide in plant cells?

- a) Glycogen.
- b) Amylose.
- c) Chitin.
- d) Starch.
- e) Cellulose.

PRACTICE: Cellulose fibers resemble _____ in proteins; whereas amylose's structure is similar to _____.

- a) α -helices; β -sheets.
- b) β -sheets; α -helices.
- c) β -sheets; the hydrophobic core.
- d) α -helices; β -turns.
- e) β -turns; coiled-coils.

PRACTICE: Cellulose, an unbranched $\beta(1-4)$ -linked homopolysaccharide of D-glucose, differs from starch in that starch is:

- a) A β -1,6-linked D-mannose homopolysaccharide that is branched.
- b) A β -1,6-linked D-glucose homopolysaccharide that is unbranched.
- c) An α -1,6-linked D-glucose homopolysaccharide that can be branched or unbranched.
- d) An α -1,4-linked D-glucose homopolysaccharide that can be branched or unbranched.
- e) An α -1,4-linked D-mannose homopolysaccharide that is branched.