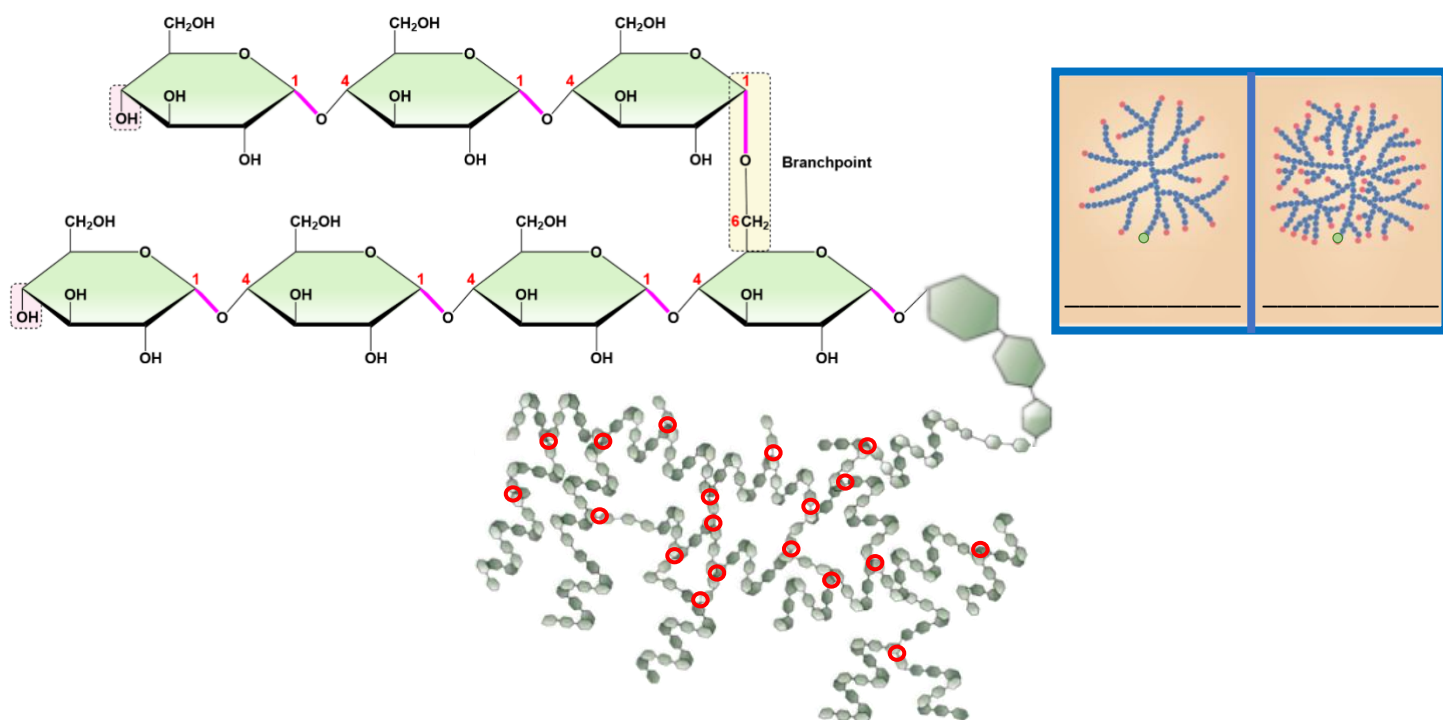


## CONCEPT: GLYCOGEN

Glycogen is Amylopectin with More Branching

Polysaccharide	Type	Repeating Sugar(s)	Glycosidic Linkage	Function	Organism	Branched?
Glycogen	_____	D-_____	_____-1,4	_____-Storage	_____	_____ ( $\alpha$ -1, _____)

□ Glycogen *branchpoints* occur *more* frequently, every 8-12 residues, via ( $\alpha$ 1 $\rightarrow$ \_\_\_\_) glycosidic linkages.



**PRACTICE:** The storage form of carbohydrates in animals is:

- a) Glucose.                      b) Amylopectin.                      c) Lactose.                      d) Glycogen.

**PRACTICE:** In glycogen there are:

- a) Alpha 1-4 glycosidic bonds only.                      d) Alpha 1-4 and 1-6 glycosidic bonds only.  
b) Alpha 1-5 glycosidic bonds only.                      e) Alpha 1-4 and beta 1-4 glycosidic bonds.  
c) Alpha 1-6 glycosidic bonds only.

## CONCEPT: GLYCOGEN

### Polysaccharide Review

- Let's review the polysaccharides we've covered so far:

Polysaccharide	Type	Repeating Sugar(s)	Glycosidic Linkage	Function	Organism	Branched?
Cellulose	Homo-	D-Glucose	<u>      </u> -1,4	<u>                  </u>	Plants	No
<u>                  </u>	Homo-	NAG	$\beta$ -1,4	Stuctural	Animals	No
Peptidoglycan	<u>      </u> -	NAG & NAM	$\beta$ -1,4	Stuctural	<u>                  </u>	No
<div> <div> Amylose  Starch  Amylo<u>      </u> </div> <div> <u>      </u> </div> </div>	Homo-	D-Glucose	<u>      </u> -1,4	<u>      </u> -Storage	Plants	No
<u>                  </u>	Homo-	D-Glucose	$\alpha$ -1,4	Energy-Storage	<u>                  </u>	Yes, lots! ( $\alpha$ -1, <u>6</u> )