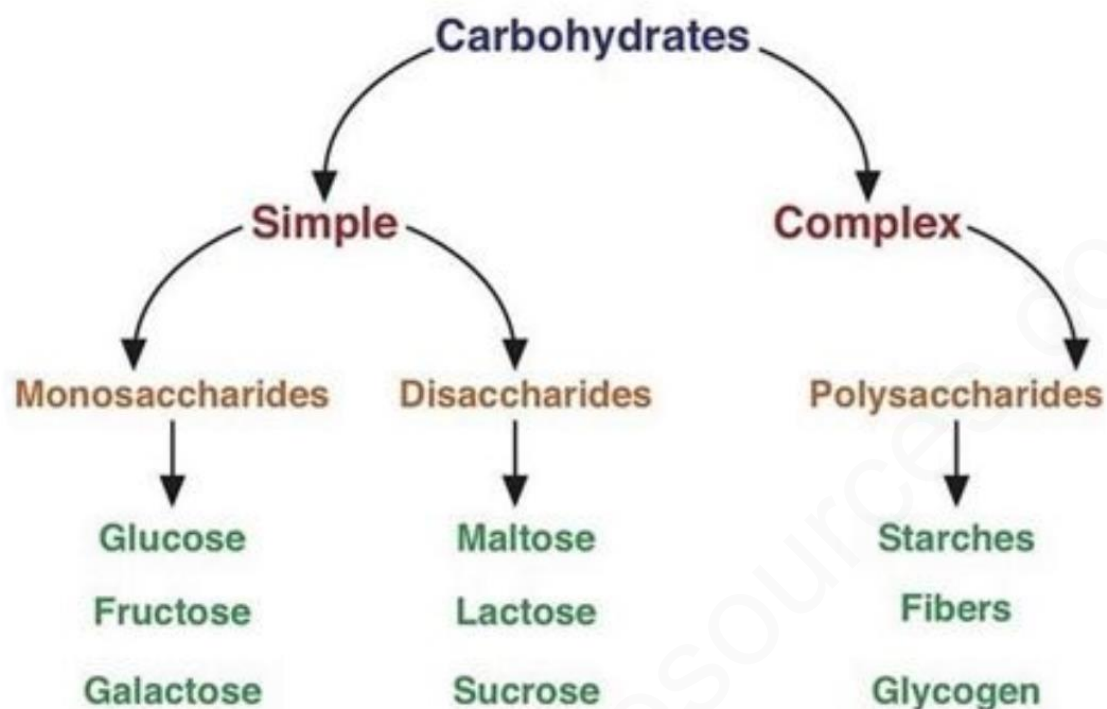


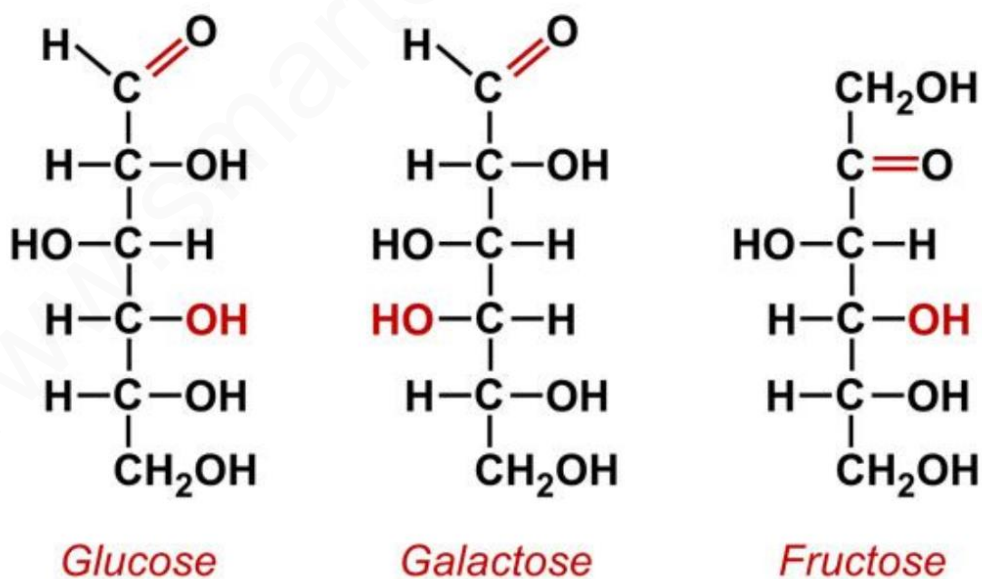
MACROMOLECULES

Classification of carbohydrates:



- As shown above, carbohydrates can be classified as simple or complex.
- Simple carbohydrates include monosaccharides and disaccharides.
- The simple sugars consist of Monosaccharides(one glucose ring) or disaccharides(2 glucose rings)

Monosaccharide structure examples:

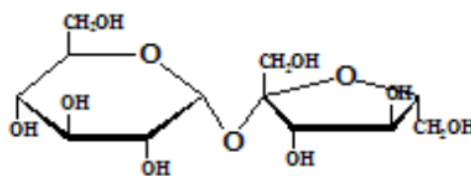


The above three structures are infact isomers of each other.

- Disaccharide structural formula are as shown below:

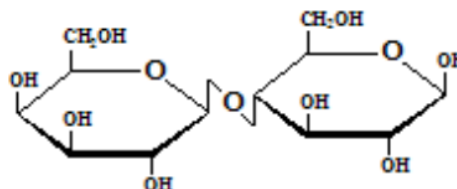
Sucrose

(Glucose-fructose)



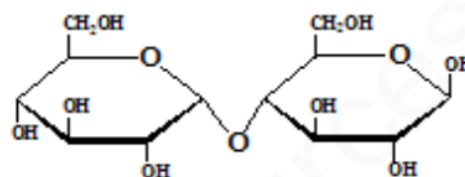
Lactose

(Galactose-glucose)



Maltose

(Glucose-glucose)



This can be taken as the mnemonic,
Go Go Martha,
Go Gal Look
For GluSu

where:

Go = Glucose

Martha = Maltose

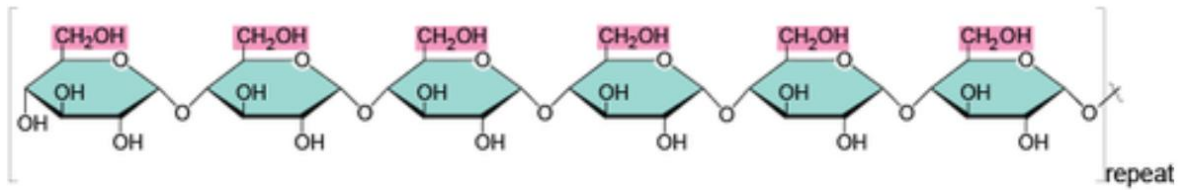
Look = Lactose

For = Fructose

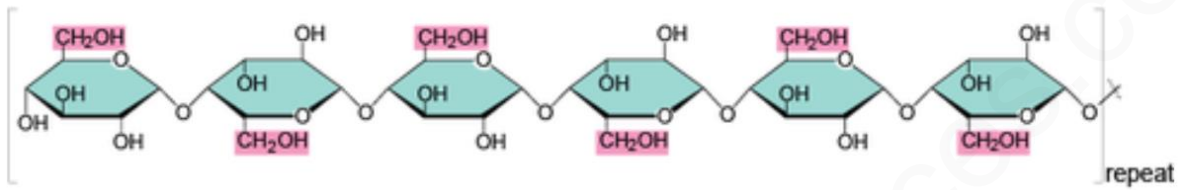
GluSu = Glucose- Sucrose

So, you're asking Martha to look for her friend GluSu

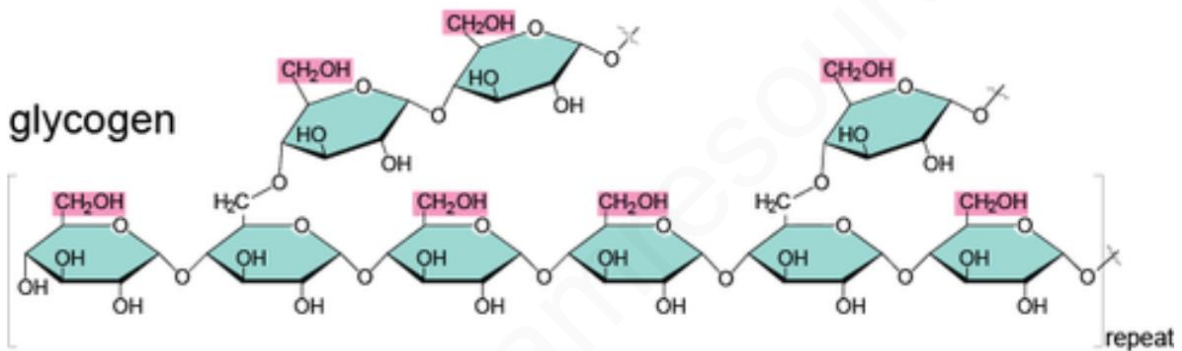
Polysaccharides:
starch



cellulose



glycogen



- Polysaccharides consist of more than 2 monomer units joined together
Examples and functions of polysaccharides (polymers) are as follows:

Polysaccharide	Summary of functions
Cellulose	Major component of plant cell walls, helps give rigidity/support to plant parts such as roots, stems, and leaves
Starch	Organic products of photosynthesis are stored in plants as starch, typically as starch granules in chloroplasts or in plant storage areas such as roots or root structures
Glycogen	Animals store excess glucose in this form. Glycogen is stored in the liver and in muscle tissue

Note: Glucose, Starch and glycogen are made up of the same monomer units

Starch , Proteins and fats are made up of many smaller molecules as stated below:

- Starch and glycogen are made from glucose
- Cellulose from glucose
- Proteins from amino acids
- Fats and oils from fatty acids and glycerol.

