

(22) **Today**

Chap 7: Carbohydrates

Next Class (23)

Test 2

(24) **Second Class from Today**

Chap 7: Carbohydrates

Third Class from Today (25)

Chap 7: Carbohydrates

Chap 13: Glycolysis

Test 2 on Chap 4 and 6 postponed to Wednesday, April 2.

Review Session Tuesday, April 1 from 7:30 to 9:00 in Wilson 314.

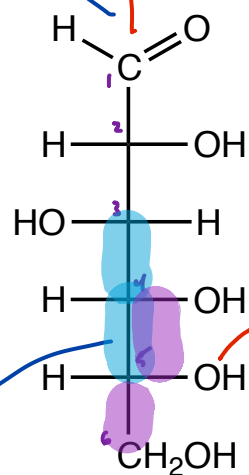
also on Zoom

Stereochemistry: Convert to Wedge and Dash Structure

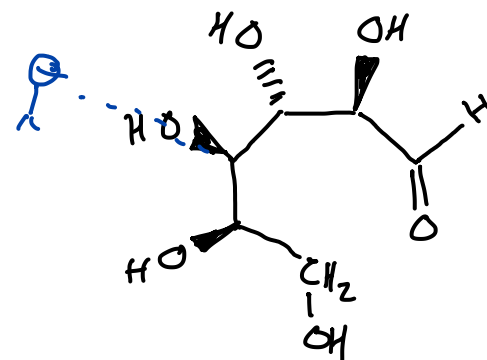
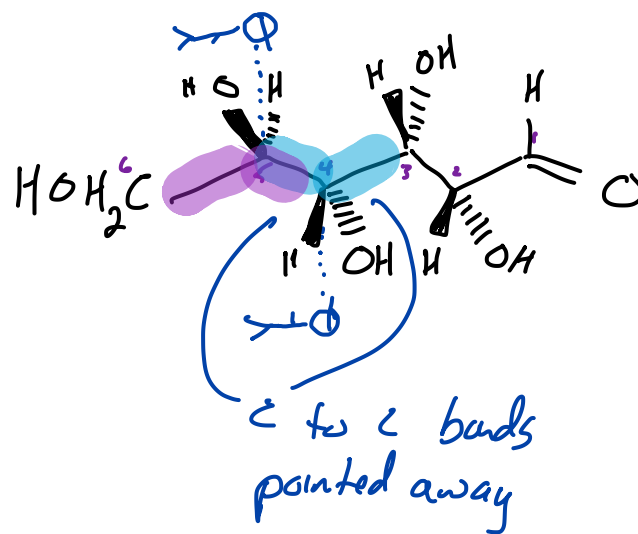
Section 7.1

most oxidized C is drawn at the top for our sugars

δ^+ electrophile



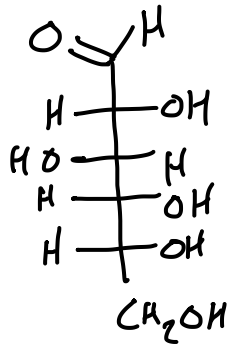
nucleophiles
 e^- rich O atoms



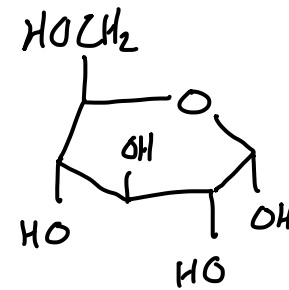
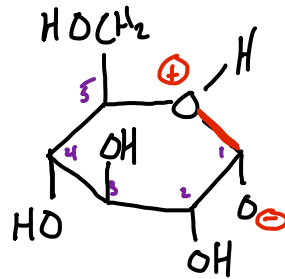
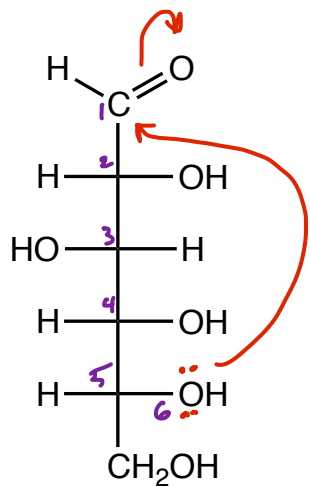
remember vertical bonds point away from the viewer
horizontal bonds point towards the viewer

Monosaccharides: Cyclic Forms

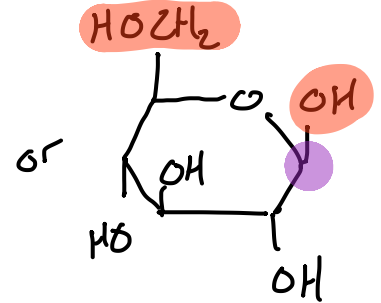
Section 7.1



6-membered ring
 α -pyranose



α -pyranose



β -pyranose

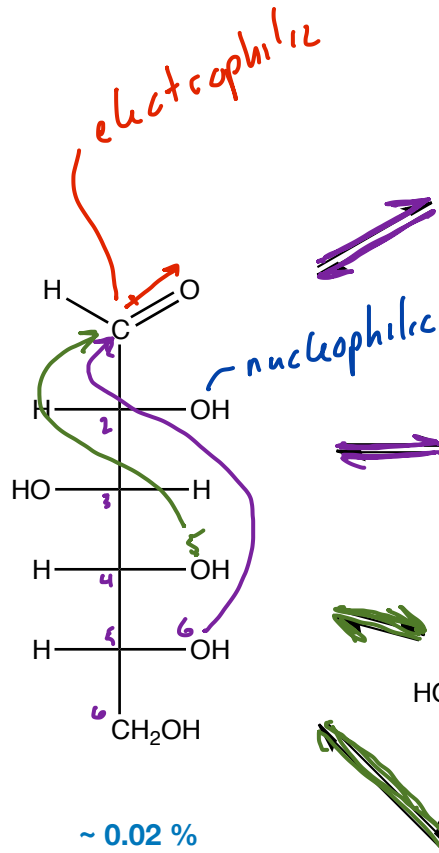
If the O atom on C5 reacts with the C1, the result is a six membered ring. When the OH on the anomeric C is up + the CH₂OH is up ... β

ring strain... hard to form
 bad bond angles

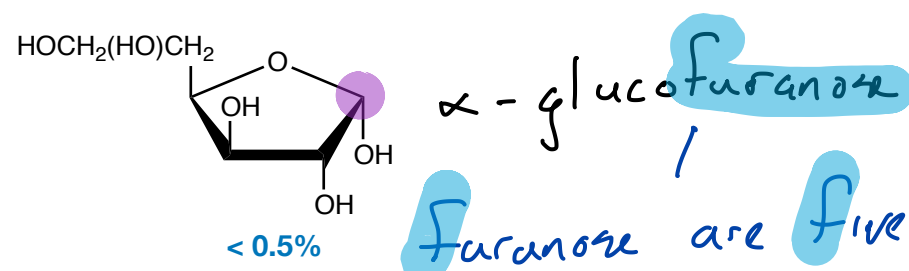
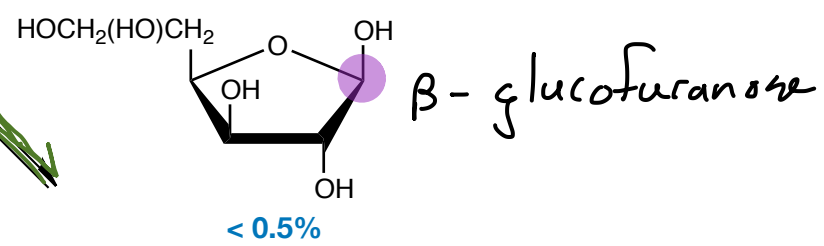
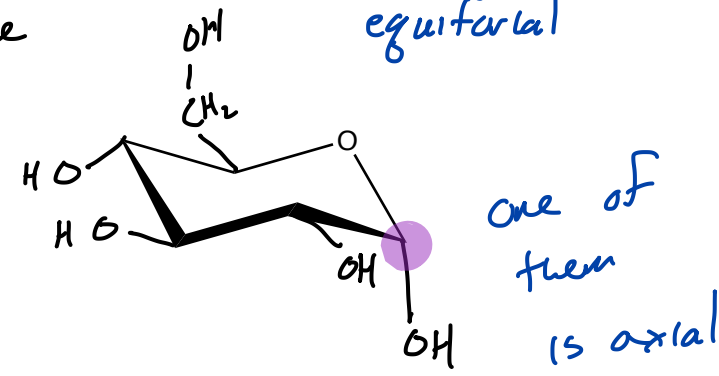
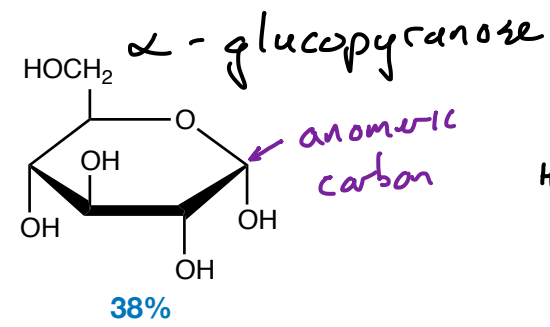
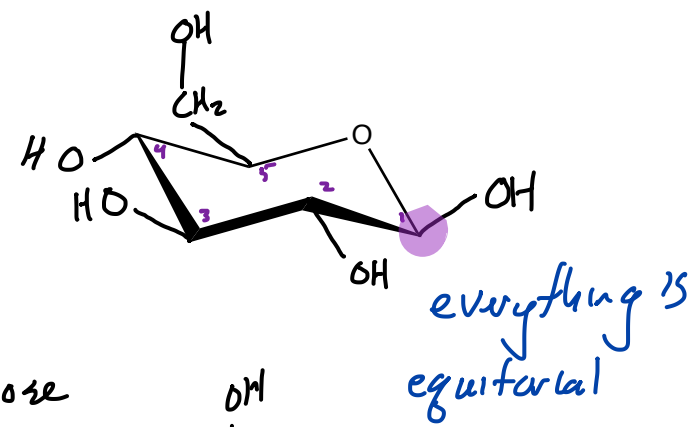
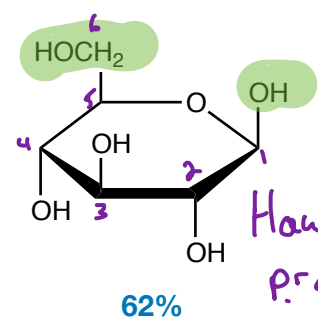
The anomeric C is the one that was the C=O
 The anomeric C is the one w/ 2 O atoms bonded to it

Monosaccharides and Disaccharides

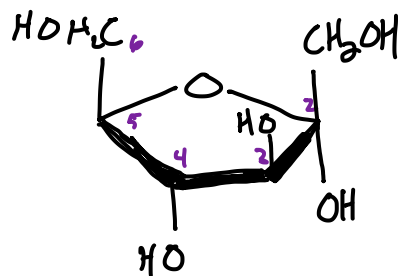
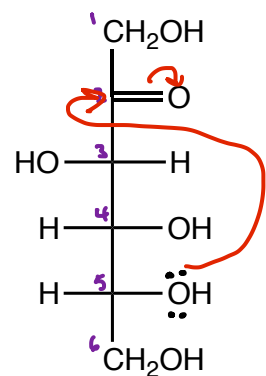
Section 7.1



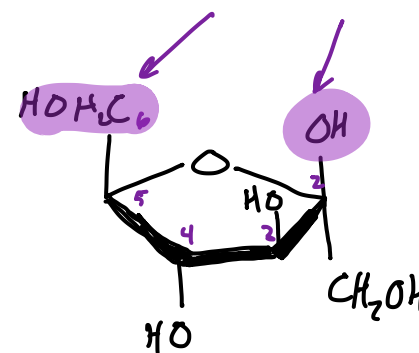
both up
 β -glucopyranose



furanose are five membered ring sugars



α - Fructofuranose



β - Fructofuranose