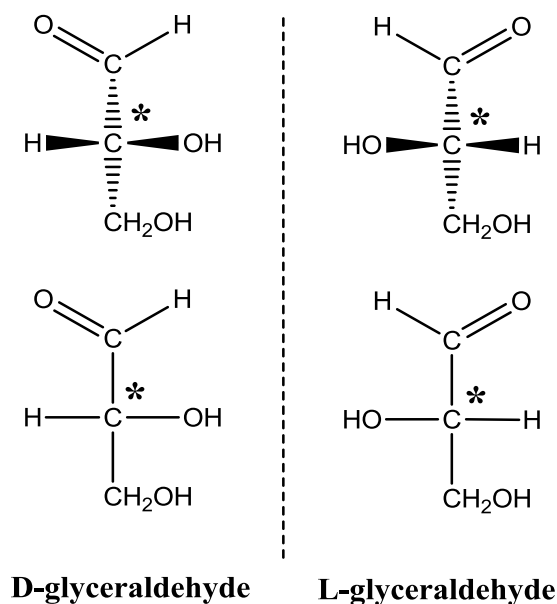


CHEM1611 Worksheet 12 – Answers to Critical Thinking Questions

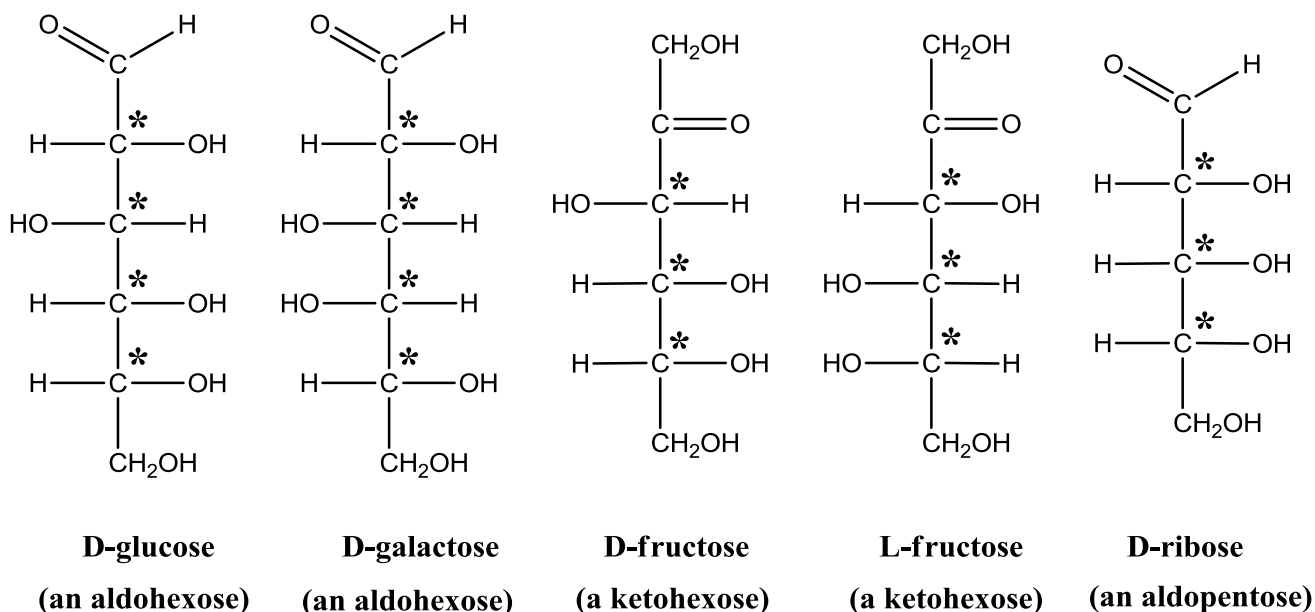
The worksheets are available in the tutorials and form an integral part of the learning outcomes and experience for this unit.

Model 1: D and L Sugars

1. See opposite.
2. See opposite.



3. See below.
4. See below.

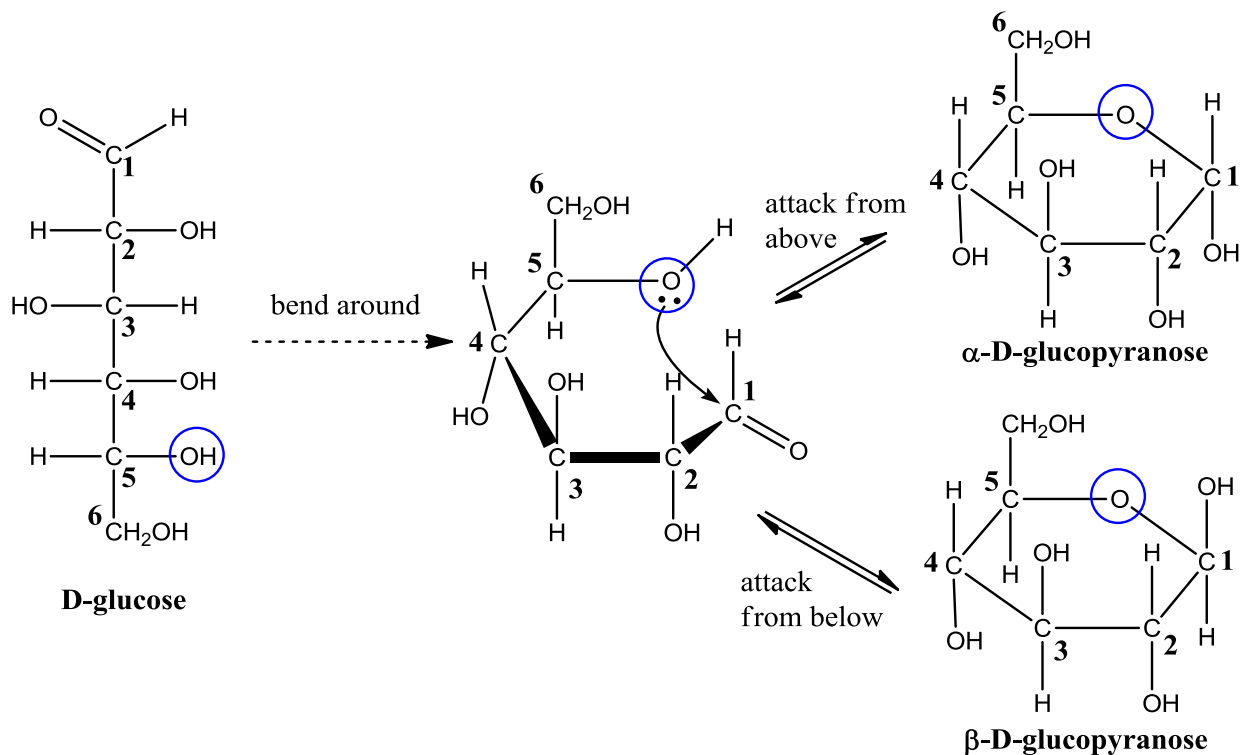


5. They are mirror images: every stereogenic centre has the opposite configuration.

Model 2: Aldohexoses, aldopentoses, ketohexoses and ketopentoses

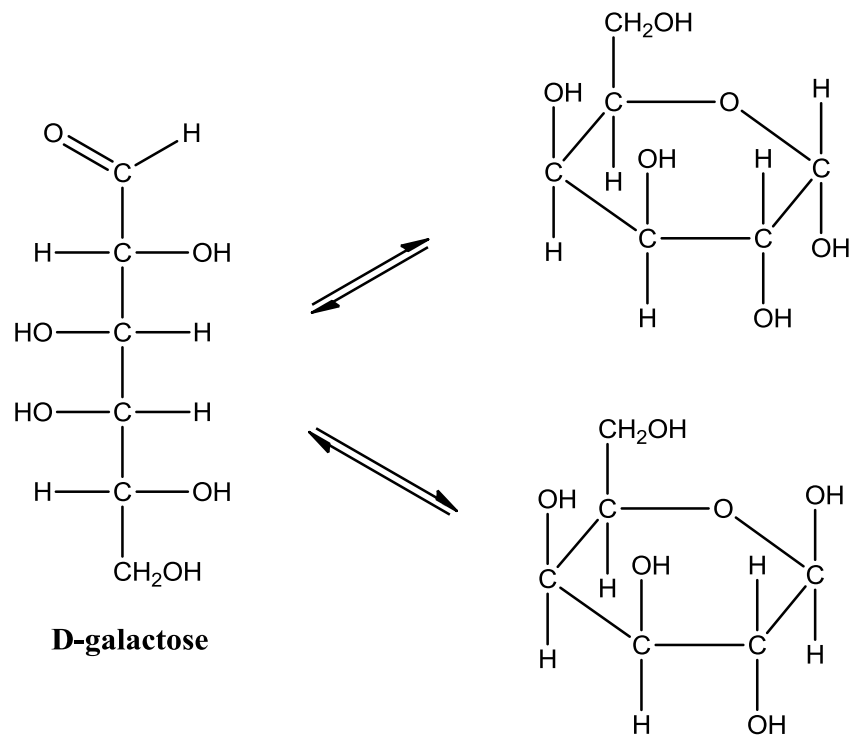
1. See above.

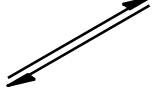
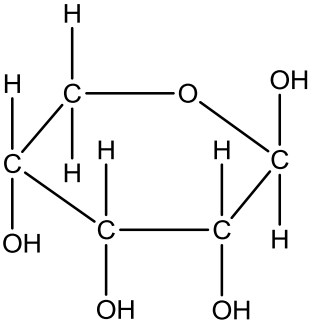
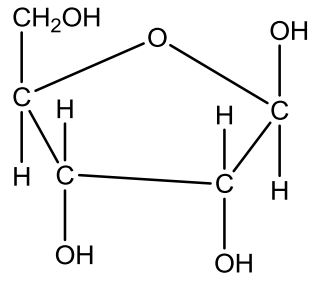
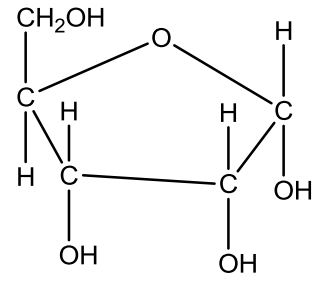
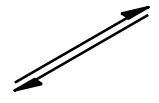
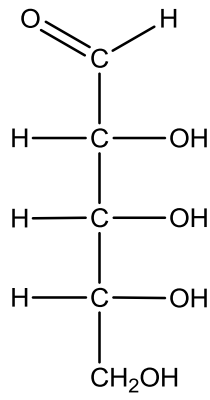
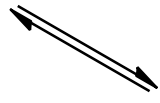
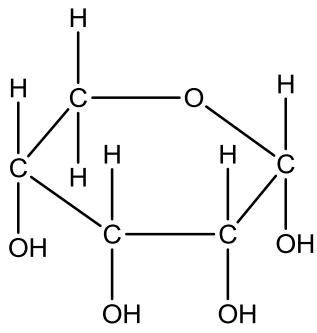
Model 3: Cyclic structures and Haworth Projections



Critical thinking questions

1. See above.
2. See above.
3. See above.
4. An OH group on the right in the Fischer projection is **down** in the Haworth structure
An OH group on the left in the Fischer projection is **up** in the Haworth structure
5. See below.





D-ribose