Stereoisomer Lab NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Organic/Biomolecules Unit # \_\_\_\_\_\_\_\_\_

1. Open the following link: <https://digitalarchive.rit.edu/xmlui/bitstream/handle/1850/11913/control%20group%20lab%20manual.pdf?sequence=1>. If link doesn’t work, try one of these:

<https://www.tes.com/lessons/JKLR4E6y_y8FGA/isomers>

<https://ritdml.rit.edu/bitstream/handle/1850/11913/control%20group%20lab%20manual.pdf?sequence=1>

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1. Instructions:
   1. Do sections A, B and C (we will do section D if there is time….ask me). Answer ALL QUESTIONS and make your drawings with PENCIL on a sheet of paper or in your lab notebook. BE NEAT- this is a lab grade! Designate R and S enantiomers, when applicable. \*\*Note, sugars (with multiple –OH groups) use D and L to designate enantiomers. For the activities in this lab, D=R and L = S (although this isn’t always the case, but will be discussed later).
   2. MODIFICATION: After you complete question #8 in section C, you must complete 3 more molecules. #9- A) Draw the Fischer projection (given on the white board or smartboard) on your paper. B) Draw a perspective diagram from the Fischer projection. C) Make a second perspective drawing AFTER you rotate the molecule. Number the substituents 1-4 (based on the points of difference) and draw an arrow to show the direction of rotation. Name the molecule and indicate if it is R (D) or S (L).
   3. Following the directions above (in “b”), make drawings #10 and #11. I will put the Fischer diagrams of the molecules on the board, if not indicated in this lab.

\*\*NOTE- In Fischer diagrams, (see book), the horizontal bonds are directed toward you. If there is a functional group, such as an aldehyde (carbonyl) group, it should be drawn at the top of the vertical line.

\*\*\*\*REMEMBER- THIS IS A LAB GRADE! You must follow all instructions above to get full credit!