Molecular Modeling Database and Cn3D Investigation I

Check your computer to see if the Cn3D computer program is loaded on your computer. If it is not yet available, use A Beginner's Guide to Molecular Structures[1] by Sandra Porter, Ph.D., and travel to page 79. Work through page 83 to download the program. Cn3D is a free software program available through NCBI.

Travel to: Geospiza Inc. Bioinformatics in Education at
http://www.geospiza.com/education/
Click on "Animated Tutorials" and then click on "Introduction to Protein Structure."
Choose "Finding structures in MMDB" and "Properties of amino acids and the primary structure of proteins."
Work through the two tutorials by using the green arrow navigation tool.

If time permits, work through all 7 tutorials on this page. Each of the 7 tutorials has a Cn3D site.

Locate the A Beginner's Guide to Molecular Structures by Sandra Porter of Geospiza, Inc. (ISBN 0-9763846-3-9).

Travel to NCBI→ Choose Structure→Type "Amylase"

Follow instructions in the text from #4 on page 84.

Investigate the Animation Controls, Cn3D Basics and Viewing and Manipulating Structures found on page 84-88.
Practice changing the basic actions below. Get a teacher signature for each manipulation.

Size _____

Orientation _____

Position _____

Visibility _____

Coloring _____

Drawing Style _____

Practice the windows and menus described on page 88-91.

[1] Porter, Sandra. A Beginner's Guide to Molecular Structure. Seattle, WA: CafePress.com (ISBN 0-0763846-3-9) and Geospiza http://www.geospiza.com/education/