TECH: Computer Aided Drafting (Communications) Module

Summary

Updated in May 2008! Students will learn the main features of a CAD system, and through this process learn to understand the absolute coordinate system. Students will produce an orthographic drawing by entering coordinates to complete the activity.

Time Frame

2 class periods of 45 minutes each

Group Size

Pairs

Life Skills

Thinking & Reasoning, Communication, Employability

Materials

A Windows based computer platform. A printer will need to be connected to the computer to make a hard copy. This activity requires the software, AutoSketch 8 or 9 by Autodesk. AutoSketch 8 will run on older platforms.

Background for Teachers

Teachers need to know the basic operation of a computer, and where they want the student to save their files. Students will draw using absolute coordinates and that are entered with the keyboard. The curriculum instructs students on coordinate systems. The students will complete an orthographic drawing. The images on this document come from a variety of sources. They are either public domain, royalty fee, created by the author, or used by arrangement with the copyright holders. No permission is granted for the copying or re-use of any images used in this document, copyrighted or otherwise. Computer Aided Drafting© Mike Breen - Author of document. USOE has purchased rights to the document which gives individual teachers within the state of Utah rights to print this document for use in their classes.

Student Prior Knowledge

Students need to be able to read and write. Basic computer knowledge is helpful.

Intended Learning Outcomes

Students will learn the main features of a CAD system. Students will learn to understand the absolute coordinate system. Students will produce an orthographic drawing using CAD.

Instructional Procedures

Teachers will need to make sure that the software is loaded and that the computer has a printer for output. Teachers will need to instruct students as to where their work should be saved. Students sit down and read and follow directions.

Strategies for Diverse Learners

Beginning Students may be given the same assignment and directed to complete the assignment using the mouse as the input device. Students may be given a different drawing in a text book such

as "Exploring Drafting" and directed to create a drawing by using the mouse as the input device.

Extensions

This curriculum is an introduction to CAD. That is all it is. For an extension, give the students an object from the textbook and have them point and click with a mouse to draw the object. It is a great lesson even for 9th graders.

Assessment Plan

Students will fill out the worksheet in the PDF file. The teacher will visually check this to see that they are on task and understanding the concepts.

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