



PLTW Virtual Learning

7th and 8th Grade Design and Modeling

May 4, 2020



Lesson 20: 3D Modeling Day 1

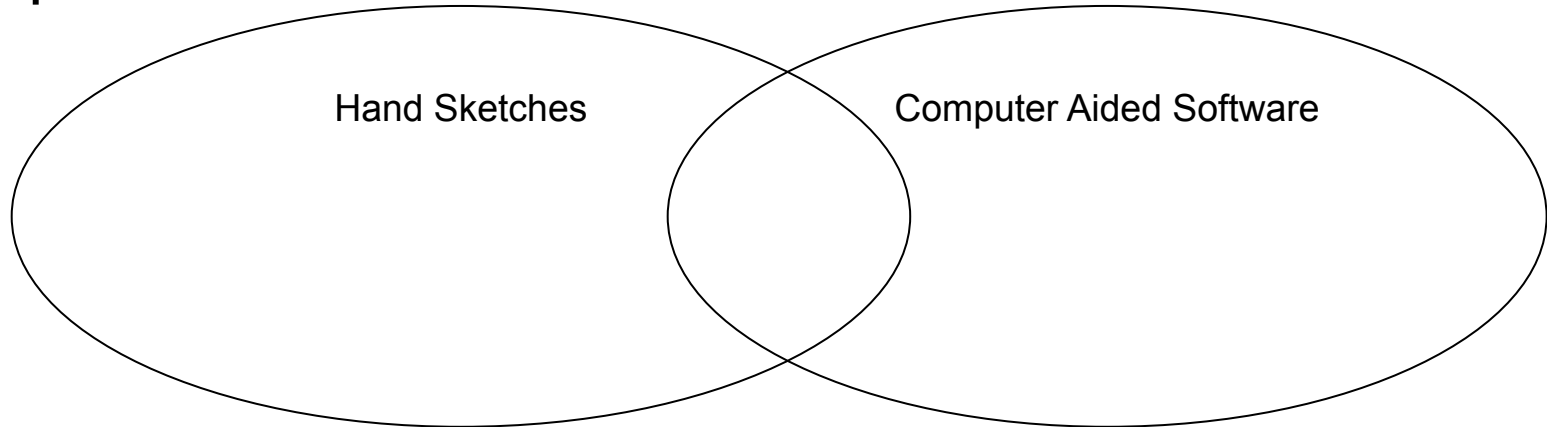
Objective/Learning Target:

Students will understand the advantages of three-dimensional modeling for engineers.

Warm-Up:

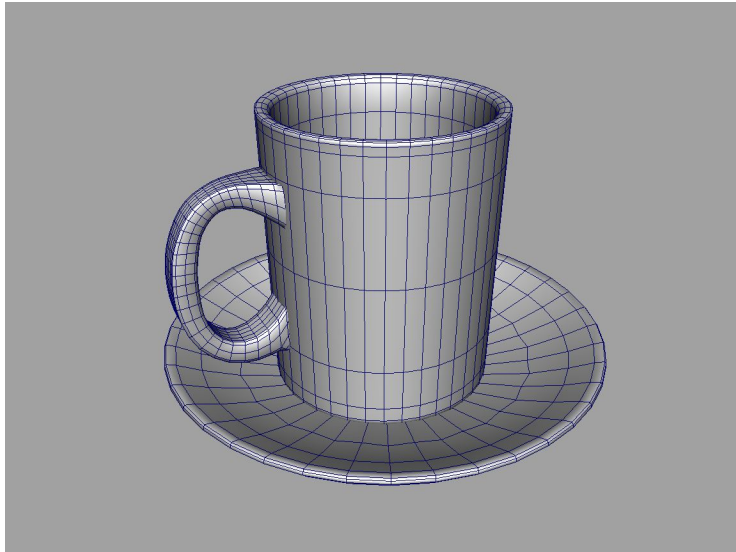
Why would an Engineer want to be able to draw a 3D model of an object?

Compare and contrast the use of hand sketches vs the computer aided software.



Lesson Introduction/Background Information:

This week we will focusing on 3D modeling objects. As you progress through the slides, take notes so that you can add to them and use them throughout the week.



3D Modeling

Do you play video games? Have you ever wondered how the designers can make the characters and objects look so realistic? They use three-dimensional modeling. 3D modeling is used to design most of your world today, from video games to the cars we drive.

A 3D model on a computer, allows the designer to move the direction of the view of an object. They have the ability to see it from the back, the top, and can even open the object to see it from the inside.



Practice:

Look at this website and add the 9 advantages of 3D modeling to your notes.

[9 Advantages of 3D Modeling](#)

Self-Assessment:

Quickwrite

If you were asked to draw a sports car would you rather draw it using isometric, multiview or computer aided software? Why?

Extend Your Learning/Continued Practice:

Check out more information about 3D modeling here.

[Why bother with 3D models](#)

[Why engineers and architects need 3D models](#)