

Title: Three Dimensional(3D) Modeling

Curriculum: Visual Art(Computer Graphics)

Grade Level Span: 8, 9-12

Purpose: One of the major fields within Computer Graphics is 3D modeling. This unit introduces students to 3D modeling through a variety of software on either Macintosh and PC computers.

Description: Students in 3D modeling will have the experience of creating three dimensional shapes and characters that can be rotated to actually create the effect of a fully model object(s).

Activities	Curriculum Standards	NETS for Students
1. The student will be introduced to the history of 3D modeling through such examples found on videos and movies such as "Shreck" and "Toy Story". An exploration of the work done by Pixar and Industrial Light and Magic will also be discussed.	Graduation Rule Arts and Literature	1,4,5,8
2. The students will be introduced to the software "3D Studio MAX 3 and 4, Poser 4 and Poser Pro Pack, and Bryce 5.		1,4,5,8
3. The student will become familiar with the shortcut menus for the previously mentioned software.		1,4,5,8
4. Using 3D Studio MAX 3 or 4 the student will create a simple or complex object using primitives.		4,8
5. Using Poser 4 or Poser Pro Pack the student will create a figure in motion.		4,8
6. Using Bryce 5 the student will create a 3D landscape.		4,8
7. Using Poser the student will create a figure which is imported into a Bryce 5 landscape.		4,8
8. The student will import images from numbers 4-8 into Photoshop 6 or 7. The images are		8,9

adjusted using Brightness and Contrast, sized, and printed.		
9. The student will mat their work for display.		
10. The student will write a Artist's Statement discussing the relationship between the four images.		4
II. Optional: Images from this unit can be assembled to create a slide show.		6,7

Tools and Resources

(List all Web sites, specific software and hardware needs)

Macintosh computer(G3 or G4)

PC computers(1.4 Ghz or higher)

128MB or higher RAM

Software: 3D Studio MAX 3 or 4

Poser 4 or Poser Pro Pack

Bryce 5

PhotoShop 6 or 7

Printer

Paper

Mat Board

Mat Cutter

Assessment

(How will you assess the students' learning? If you have a rubric, record it here. Be as specific as possible)

Checklist: Student and Staff

1. 3D Studio MAX simple or complex shape
2. Poser 4 figure in motion
3. Bryce 5 landscape
4. Poser figure in Bryce landscape
5. 4 part print out, matted
6. Artist's Statement relative to 4 pieces.

Authors (including contact information)

(Record the names and email addresses, if possible, of those who contributed to the development of this lesson sequence)

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Personal Account

(Have you taught this lesson sequence before? What are the great learning/experiences you had?)

The activity can be incorporated into a middle school program or in a senior high art, photography, graphic design, or graphic arts program. Students will work at a basic introductory level or if encouraged at quite an advanced level based upon their commitment to each image.

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