

Mathematics and Art

Instead of a final exam, I will let you discover the beauty in mathematics and share it with your classmates. Impress me with your creativity! Research a topic that connects mathematics and art. Prepare a presentation to the class on your topic. Make sure you have visual aids: either models or diagrams. Write a short paper summarizing your topic and what you learned. Cite your sources. Remember, this is worth a lot of points! So, make me say, "Wow!"

Models: you may use any type of materials, some suggestions: straws, toothpicks, marshmallows, Playdoh, poster board

Diagrams: you may have posters, overhead transparencies, computer slides, pictures from a web site
Let me know if we need to borrow a projector to hook up with a computer.

Some topics:

Geometric Sculptures www.georgehart.com

Selected Geometry Sites on the Internet

<http://www.math.com/students/wonders.html> Cool Math, including fractals

<http://forum.swarthmore.edu/library/topics> Math Forum Math Topics, find links here for art, music, literature and poetry

http://forum.swarthmore.edu/library/resource_types/recreations another link in here for poetry

<http://www.hpl.hp.co.uk/brims/art> Order in Space, very cool cover picture!

<http://www.georgehart.com> George Hart, visited CCT in 2000, awesome mathematical sculptor
I found lots of links, including those below, by searching for Mathematics and Art using

www.google.com

<http://fas.sfu.ca/cs/people/GradStudents/darylh/personal/images/math+art> Math and Art on the Web

<http://phoenix.liu.edu/~aburns/webpage/aburns.htm> Applets for Math Art

Expectations:

Topic chosen is about a connection between mathematics and art

You must have your topic pre-approved!

Quality visual aid(s)

Vocabulary use: correct terminology (new vocab is a plus)

Complexity: you should demonstrate that you learned something new about mathematics

Mathematics: you need to explain/discuss the mathematics that is involved in your topic

Expertise: learn enough about your topic to answer questions from an ignorant audience (your class and me)

Class Presentation: organized, clear, interesting voice and manner

Originality: everyone must choose a different topic or a different aspect of a topic

Paper: neat, clear summary with details as needed, watch spelling! Accurate list of sources.

Timeliness: you will lose points if you are not prepared or absent.

Precalculus Final Project 2001

Name _____

Score _____

Topic

Summary of Presentation

Criteria	
Topic chosen is about a connection between mathematics and art	
Quality visual aid(s): shows time, effort and creativity	
Vocabulary use: correct terminology (new vocab is a plus)	
Complexity: you should demonstrate that you learned something new about mathematics (MS math is a minus, HS math is a check, something we've never done in HS is a plus)	
Mathematics: you need to explain/discuss the mathematics that is involved in your topic	
Expertise: learn enough about your topic to answer questions from an ignorant audience (your class and me)	
Class Presentation: organized, clear, interesting voice and manner	
Originality: everyone must choose a different topic or a different aspect of a topic	
Paper: neat, clear summary with details as needed, watch spelling! Accurate list of sources.	
Timeliness: you will lose points if you are not prepared or absent.	