

Math 26 - Geometry Project

Due: Wednesday, February 6

Read 3 articles from the National Council of Teachers of Mathematics (NCTM) journals dated from 1990 to present that focus on geometry. The journals that you must use are *Teaching Children Mathematics (TCM)* and *Mathematics Teaching in the Middle School (MTMS)*. Copies of these journals are located in Cowles Library (also check the SOE Resource Center). A few selected articles from each journal also available on the NCTM web site: www.nctm.org. . Read at least one article from each grade level K-2, 3-5, and 6-8.

Paper

Hand in a typed paper not to exceed 6 pages (not including photocopies of articles). Use subheading to arrange the sections of the paper in the order outlined below and on the score sheet. It is your responsibility to clearly identify the location of each part of the sections. Correct spelling and grammar are important.

Include the following sections in your paper.

A. Introduction

- Define **geometry**; then describe geometry as you remember being engaged with it in K-8 grades.
- Pedagogy and assessment used when you engaged in geometry in grades K-8 (e.g., describe a typical lesson, how it was presented to you, and how you were assessed).
- Connections to the world outside of the classroom (i.e., how geometry was made relevant to your "world").

B. Write a report on each article. Use subheadings to indicate the start of each section:

- Name of journal, title of article, date of journal, page numbers, author(s), and intended grade level(s).
- Summary of the main theme of the article.
- Explanation of how the article is related to geometry. This must be explicitly described.
- Discussion of what you learned from the article that was:
 - a. New to you in geometry content, pedagogy, and assessment
 - b. The same as your prior experience and knowledge regarding teaching geometry in the elementary grades
- Description of an application for an elementary classroom that you would like to try in an elementary class that is based on the reading.
- Photocopy of the article.

Math 25 Geometry Project: Grade Sheet

Name: _____

Title of each article (Fill this out BEFORE you turn in your project):

Article #1 _____ Grade Level: _____

Article #2 _____ Grade Level: _____

Article #3 _____ Grade Level: _____

A. Introduction: (12 pts)

Definition and past experience with geometry content 3 pts _____

Pedagogy 3 pts _____

Assessment 3 pts _____

Connections 3 pts _____

B. Articles (66 pts)

Article # 1

Article # 2

Article # 3

General Information

Name of journal 1 pt ea. _____

Title of article 1 pt ea. _____

Date of journal 1 pt ea. _____

Page numbers 1 pt ea. _____

Author 1 pt ea. _____

Grade level 1 pt ea. _____

Summary of main theme 2 pts ea. _____

Geometry content 3 pts ea. _____

Photocopy of article 1 pt ea. _____

What you learned (address 3 of the 5 topics)

New content 2 pts ea. _____

New pedagogy 2 pts ea. _____

New assessment 2 pts ea. _____

Same experience 2 pts ea. _____

Same knowledge 2 pts ea. _____

Application to classroom 4 pts ea. _____

Mechanics (6 pts)

Grammar, spelling, 2 pts

Organization: use of headings and subheadings 2 pts

Grade sheet turned in with report and information filled in 2 pts

Total Points: 84 pts _____ Letter Grade: _____

Late Penalty: 10% per day

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