GROUP PROJECT - MATH 170

You are required to do two projects during the quarter. You will be working with a group of 4 students, however I would like you to work with a different group (at least two different members) for each project. The goal of the project is threefold. I want you to read through the K-8 math standards, I want you to think about how you would teach the content described in the standard, and I want you to try explaining math to others.

The project will be evaluated by the entire class as well as the instructor. If at all possible, try to time completion of your project so that they can be used in class at the time we are discussing the concept. Project presentations must be scheduled one week in advance. You may sign up for these dates on a first-come, first-serve basis during the second week of the quarter.

I require that you provide the rest of the class with handouts that can be added to your Reference Notebooks or Portfolios. A completed lesson plan sheet will also be turned in at the time of the presentation.

It is very important that each group member participate fully in the project. Some division of labor will be required for the project, but please try to make sure that each group member is involved. At the end of each project, you will have the opportunity to evaluate each group member's participation in the projects.

You may use ideas found in books or magazines, but try to add something to the idea and be sure to give proper credit.

**WASHINGTON MATHEMTICS STANDARDS (K-8):** Read one of the strands within the Washington State K-8 Mathematics Standards. You should conduct a short activity, 15-20 minutes, which exemplifies the standards. The lesson could include the use of computer courseware or calculators. The presentation should include handouts that will be useful for future reference. You can find the Mathematics Standards at:

<http://www.k12.wa.us/CurriculumInstruct/Mathematics/RevisedStandards.aspx>

This presentation should relate to the material we are covering in class. Choose one of the following options and develop a presentation that aids the class in understanding the topic we are covering that week:

**MAGAZINE ARTICLE:** Read an article from a magazine and summarize it for the class. Try to choose an article that centers around teaching a mathematical concept which we are discussing in class. Choose an article that describes an activity and then conduct that activity in class. Conduct a 10-15 minute presentation for the class. Provide copies of the article for the entire class. I have copies of magazines that you can check out.

**INTERNET EXPLORATION:** Investigate several sites on the internet which focus on mathematics education. In particular, find sites that relate to the topic we are covering in class. As a group, spend a couple of hours exploring these sites. Conduct a 10-15 minute presentation to the class about your findings and provide a handout that includes the addresses of the sites and brief descriptions of each. There are a lot of really cool interactive websites now available on-line!

**RUMMAGE SALE OR THRIFT STORE HUNT**: As a group, visit rummage sales or thrift stores and purchase items which could be used to teach mathematics concepts, particularly the ones we are currently discussing in class. Do a 10-15 minute presentation for the class. Involve the entire class in some activity using one or more of your items. Include handouts that describe the items that you find and how they could be used to teach math concepts.

**BULLETIN BOARD:** Create a bulletin board which centers around a concept which we are discussing in class. The bulletin board should be activity oriented. You may adapt a bulletin board idea that you find in a book, magazine, etc. You should plan to display the bulletin board in our classroom. Give a 10-15 minute presentation to introduce the bulletin board and to involve the class in the activity. Also, provide the class with a handout that can be used to recreate the bulletin board.

**DESIGN A MATH MANIPULATIVE OR VISUAL AID:** Design a manipulative or a visual aid which could be used to teach the math concept we are discussing in class. You will be asked to demonstrate it to the class. The manipulative or visual aid will be kept in the Math Learning Center so that it can be used with MATH 62 or 70 students. You should give a 10-15 minute presentation and provide handouts for the entire class that will help them build or design the manipulative or visual aid. Involve the entire class in a short activity. If possible, plan ahead so that we can use the manipulative or aid at the time the concept is discussed in class.

**ACTIVITY FROM MUSSER/BERGER RESOURCES:** Choose one activity from the online resources mentioned at the end of each section of our required text or from the optional “activity approach” text. The address for the online resources is http://www.wiley.com/college/musser. Give a 10-15 minute presentation to the class along with handouts of the activity. Involve the entire class in the activity. Plan ahead so that the activity is introduced at the time the concept is discussed in class.

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