

- a unit plan for a sequence of lessons to develop a mathematical concept or skill. For the purposes of this assignment, think of a unit as a 6 to 8 lesson sequence.
- the design and set up of a math activity center for some mathematical topic at your grade level of interest, including a rationale for the decisions that you make in designing it and planning how it would be used.
- the design and production of a "math box" of related mathematical activities that children could take home to do with their parents/other family members, including a rationale for your design, instructions for use, and plans for follow-up
- an annotated bibliography of resources to deal with equity issues in mathematics classrooms, with examples of activities for children.
- a paper exploring/analyzing the specific application to mathematics education of some current pedagogical issue/approach (for example, cooperative learning, assessment and evaluation, integration, multi-age grouping...)
- a "real math" project, developing mathematics learning activities that grow out of some real life situation (for example, shopping, making and flying kites, weather,...)
- a project that integrates mathematics with one or more other school subjects (for example, math and art, math and reading, math and physical education)
- a collection of annotated open-ended problems together with a "teacher's guide" suitable for your grade level of interest.

6. **Course self-evaluation:** Your own assessment of your performance in the course.

#### Important Dates

May 18: Hand in a plan of your proposed project detailing what you would like to do, why you chose the topic, what form you expect the final project to take, what things you plan to include in the project, etc. First reflective write done in class.

May 25th: IRP report done as small group in 'station' approach

May 29th: Report on the math investigation journey, including description of paths followed in the investigation as well as reflections on your affective state as you took the trip! *This is also the first of two Saturday meetings we will have.*

June 8th: Provide an update on the progress of the project: what has been completed, what remains to be done, as well as an indication of the criteria which should be taken into consideration when evaluating the project. Second reflective write done in class.

June 19th: The second of the two Saturdays we will be meeting.

June 22nd: Third reflective write done in class.

June 29th: Hand in finished project. Hand in self-evaluation.

#### **COURSE READINGS:**

John A. Van de Walle, Elementary School Mathematics: Teaching Developmentally (3rd Edition). New York: Longman.

Mathematics IRPs

Selected articles to be distributed in class (A small fee will be charged to cover the cost of duplicating.)