ECEM MEETING 1 4/8/09

-- Syllabus

-- Course structure and grading

Shared experiences
  -- why are you taking this course?
  -- what do you expect to gain?
  -- what do you want to learn?

GOALS

The PRIMARY GOALS for ECEM 130 are:

1) to bring students to a level of comfort so that they can enjoy modeling and participating in mathematical activities.
2) to provide a broader understanding of math.
3) to provide a vocabulary of tools and ideas that fit math naturally into the activities of a preschool.
4) to provide a vocabulary that supports students when talking with parents.
5) to provide support for understanding kids' biological knowledge of math, and the way that they acquire additional math skills.

The GENERAL CONTENT of preschool math education is to develop an understanding of:

1) how numbers work (arithmetic)
2) spatial concepts (geometry)
3) patterns and relationships (algebra)
4) time and sequence (measurement)
5) data collection and presentation (statistics)

The GENERAL TYPES of preschool math experience include:

1) counting everyday things
2) one-to-one correspondence, conservation of quantity
3) sorting into piles and into containers
4) matching sets (pots and lids)
5) making patterns (blocks, beads, sticks)
6) arranging in space, temporal order, identifying shapes

NCTM PRINCIPLES and STANDARDS

NCTM Principles	NCTM Standards
Equity	Number and Operations (arithmetic)
Curriculum	Algebra
Teaching	Geometry
Learning	Measurement
Assessment	Data Analysis and Probability
Technology	Problem Solving
	Reasoning and Proof
	Communication
	Connections
	Representation

CENTRAL IDEAS FOR TEACHING MATH

1. Thinking about the problem, not the answer, is what is most important.
2. Process is more important than product.
3. Answers come from logical certainty, not an authority figure.

EXERCISES

-- tell a story about math in your life
-- tell a story about math in your experience with preschool children

-- Piaget sorting

-- Telephone description

-- Biggest meaningful number

-- Measure the height of the table