## **Algebra/Geometry Institute Summer 2005**

## Lesson Plan 2: Exploring Area

Faculty Name: Tetra Winters School: Friars Point Elementary Grade Level: 5<sup>th</sup> Grade



- 1 Teaching objective: Students will incorporate the knowledge of geometry, measurement, and graphing to develop the measurement concept of calculating area.
- 2 Instructional Activities
  - Before activity begins, the teacher will set up stations in the classroom. Station 1----- Bulletin Board
    - Station 2----- File Cabinet

Station 3----- Rectangle on the floor

Station 4----- Door of the classroom

Station 5----- Folder at a desk

- The teacher will place students in groups of two to three people.
- Each group will be given a ruler and two yard sticks.
- The groups will rotate from station 1 to station 5 collecting data.
- At each station, the groups will have to calculate the area using the formula →

## A = Length \* Width

- At station 1, the students will measure the length and width of the bulletin board.
- At Station 2, the right side of the file cabinet will be used to measure the length and width.
- At station 3, the students will measure the width and length of a rectangle outline on the floor.
- At station 4, the students will measure the length and width of the front side of the door.
- At station 5, the students will measure the length and width of the folder.
- Each group will use the recorded data to calculate the area of the measured objects.
- The students will put the results in a chart. The chart can be similar to the chart below:

Area			
Object	Length	Width	Area
1. Bulletin Board			
2. File Cabinet			
3. Floor Rectangle			
4. Door			
5. Folder			

- The chart will be used to create a bar graph displaying the relationship of the measured objects to the area calculated for each object.
- Each student will write a journal entry explaining the activity, explaining the results of the activity, and describing any difficulty in completing the activity.
- Materials and Resources
  Pencil
  Note pad for collection of data
  Ruler
  Two yard sticks for each group
  Tape
  Graph paper

## 4 Assessment

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Observation, journal entry, and grading of the bar graph and the chart will be used to assess the students.