

# Archived Information

Charlotte Mecklenburg Schools

Activities involved with improving teacher quality

Summer Institutes for Teachers

**Goal area of the activity:** Our goal is to enhance the mathematics knowledge of our teachers so that they have a better understanding of the material as well as the scope and sequence of the discipline.

**A brief summary:** We have worked in cooperation with the University of North Carolina at Charlotte to develop a three year plan of offerings for all mathematics teachers at the middle and high school level. The courses will extend their knowledge of mathematics and help them develop pedagogical strategies to reach all students. The institutes are two weeks long with each class meeting for 1/2 day each day. Students will have time to think and process the material presented each day. Classes are taught using some direct instruction, collaborative learning and discovery. The classes are taught in the summer, and each teacher pays an enrollment fee of \$25 per class. During the summer of 2002, our summer institute for elementary teachers focused on developing mathematical knowledge. Two one-week sessions were held with facilitators from TERC. During the 2002-03 school year, the district has provided follow-up training for summer participants after school and on district professional development days. Targeted training was provided for high school Algebra I teachers on the use of manipulatives.

**Purpose:** For the middle and high school alternatively licensed teacher, we need to cover the mathematical concepts that they will be teaching, by modeling instructional strategies. They will not only learn the material, but also the pedagogy and methods for each concept. Time will be spent discussing areas in which students have difficulty. For experienced teachers we will offer courses that refresh their knowledge and/or enhance their mathematical knowledge base. We will offer courses in Discrete Mathematics, Trigonometry, and Data and Statistics, Number Theory and Calculus. At the elementary level, teachers need an understanding of mathematics beyond what they were taught. We will concentrate on expanding their current knowledge.

**Accomplishments/Results:** We ran the Summer Institute for the first time in the summer of 2002. In our summer courses, we registered 240 teachers at the middle and high school level, and 400 teachers at the elementary level. Through UNCC, we are in the process of surveying the teachers to find out their perceptions on how the course has effected their teaching practices. At the district level we are implementing a process to track the progress of students of the teachers who take/have taken a Summer Institute course.

**Plans for the next 12 months:** We will be offering the second year of our three-year course plan this summer for our middle and high school teachers. The focus for elementary teachers will be aimed towards developing a deeper content knowledge. For the 2003-04 school year we plan to continue offering staff development in a variety of formats: on-line, afternoon and all day opportunities that focus on identified and specific needs. We will continue to pilot with Mathemagica using on-line professional development for K-8 teachers.