MATH at Mount Eagle

The math program at Mount Eagle is facilitated by our SUM (Step Up Math) teachers, who focus their energies around a variety of initiatives to enhance students' achievement. They use the coaching model to work with teachers and teams of teachers in order to plan, assess, diagnose, and prescribe plans of action based on student data. In the fall of the 07-08 school year, these specialists taught an afterschool 8 session class to the entire staff on the concept of problem solving. The assessment data (both formative and summative) had shown problem solving as an area of needed focus for Mount Eagle students at all grade levels.

During the 06-07 and 07-08 school years Investigations was introduced to three grade levels. During the 2008-2009 school year, the entire school used Investigations as the main resource for teaching the Virginia Standards of Learning. Within each investigation there are focus questions that teachers use to take anecdotal notes on students' thinking and understandings. Also there are both written tasks and performance based tasks that the students complete and teachers assess their understandings using focus questions provided. Additional resources were implemented into each Investigations Unit to ensure that all standards were being met. At the end of each Investigation's module (a unit of study) the students complete a paper/pencil common assessment based on the objectives covered in this unit of study. The common assessment consists of multiple choice, free response, and a performance task. Teachers grade all students' common assessments and analyze the data as a team. This data is used to drive their instruction and determine what happens next in conjunction with the upcoming unit.

In addition to the common assessments, simulation SOL tests were given in November, March, and May so that teachers could determine areas of weakness. The results of these simulation assessments were used to develop the basis of our review lessons and interventions. The SUM teacher met individually with all students who did not score 80% or higher. In these conferences, the student and teacher worked through the errors and misconceptions in an effort to strengthen a particular area of need. All students also had many opportunities to practice and reinforce what they had been learning while taking online math SOL released tests.

Curriculum

-Math is being taught for 90 minute hour

-Using the POS (Program of Studies) as the Curriculum in all grades*)*

SUM teachers provide on-going support of its usage through in-services and collaborative meetings.

-Integrations of INVESTIGATIONS curriculum

During 2006-2007 grade 1 implementation
During 2007-2008 grade K, 5, and 6 implementation
(with support from SUM teachers)
Full Implementation of Investigations Curriculum

-Content Focused Coaching

SUM and classroom teacher plan one day a week; team teach a lesson together; have a post conference one day a week. (This requires 2 planning periods and 1 math class period).

Assessment

-Common assessments:

Created at each grade level and used to drive instruction. Teachers map out assessment dates and accommodations are provided by ESOL and Special Education teachers.
DRA

-Assessment logs and student assessment folders:

Teachers K-6 maintain portfolios of student work and document assessments used throughout the year.

*ECART(Quarterly Assessment in 2008-2009)***:**

SUM teachers meet with classroom teachers to discuss and analyze data from the eCart Window. Decisions are made about instruction and review.

-Students keep Data Binders to track their progress on assessments

School-Wide Math Programs

-SOL Prep:

Integrating SOL questions into the curriculum; used to prompt discussions and the sharing of strategies; exposes students to problem solving activities related to SOL objectives; provides the opportunity for students to write in mathematics.

- Sol Pep Rallies to Celebrate the upcoming test.

- All 3-6 students decorate and wear thinking caps during tests –Idea Courtesy Elizabeth Vaughan

-Using the Every Day Calendar Counts Math Program

Teachers in grades K-6 are using this program to support their mathematics curriculum during an additional 10-15 minute period outside of their math block.

-Calendar Math Graphing Component:

As a supplement to the Every Day Calendar Counts Math Program an additional graphing element will be introduced each month. *See appendix G*

-Using Manipulatives During Instruction (Toolkits):

Each class has 5 toolkits containing grade level appropriate materials. SUM teachers support on-going use.

-Math Lab:

Implementation of a math lab for check-out of manipulatives and other resources.

-Vocabulary Math Cards School-Wide Displays:

These are cards grouped thematically and located at high traffic areas throughout the building to prompt discussion of key math vocabulary words. *See appendix K*

-Measurement Logs:

Students in grades K-6 use measurement logs throughout the year during early birds, as math warm-ups, and during instruction.

Other Resources & Support

-Extended Math Blocks:

Teacher will provide an extended 30 minute math block (90 minutes total) to provide extra practice in problem solving. Problems will be related to the current content focus. SUM teachers are collaborating with the teachers to support this process.

-Using Technology

Destination Math: Training is provided by the SBTS and SUM Teachers during the school year for the following grade levels: Qtr 1: 4th & 6th Qtr 2: 3 & 5 Qtr 3: 1 & 2.

Geometer's Sketchpad: Modeled and supported by SBTS & SUM Teachers.

Kidspiration: Modeled and supported by SBTS & SUM Teachers.

-Blackboard Site: *(school plan)*

A resource for teachers that includes: eCARTanalysis, grade level specific lessons in the LEARN format, list of resources that can be found in the math lab, math PowerPoints, SMART board lessons, website links, and other resources that support mathematics.