

STAFF DEVELOPMENT COMPONENT INFORMATION

COMPONENT TITLE: Summer Math Academy

IDENTIFIER NUMBER: 1009013

MAXIMUM POINTS: 30

GENERAL OBJECTIVE

Professional development designed to provide participants with content knowledge and instructional strategies in order to increase student achievement in all strands of mathematics.

SPECIFIC OBJECTIVE

Within the duration of this component, participants will:

1. demonstrate content knowledge of mathematical concepts, properties and principles in all strands including number sense, algebraic thinking, geometry, measurement and data analysis.
2. demonstrate clear understanding of mathematical vocabulary and terms.
3. demonstrate how to apply mathematical vocabulary and terms to instructional strategies.
4. analyze instructional strategies for effectively teaching mathematical concepts, properties and principles in all strands.
5. identify best practices for the delivery of mathematical concepts, properties and principles in all strands.
6. synthesize a variety of instructional strategies to solve problems.
7. demonstrate how to interpret student data to streamline instructional lessons that target FCAT benchmarks.
8. demonstrate understanding of how to effectively integrate mathematical concepts, properties and principles within various strands.
9. identify opportunities to integrate other core content areas including science, social students and reading with mathematical concepts, properties and principles.
10. analyze effectiveness of using math literature to develop mathematical concepts, properties and principles.

PROCEDURES

Participants will:

1. Actively participate in professional development opportunities.
2. Read research-based best practices from a variety of current academic journals and texts.
3. Simulate modeled lessons.
4. Observe specified content via video/technology.
5. Engage in small-group directed activities.
6. Record reflections.

FOLLOW-UP ACTIVITIES

Participants will apply their learning by:

1. providing written reflections.
2. gathering student work samples.
3. developing a portfolio.
4. publishing an article, newsletter, or best practice stating impact to student achievement as a result of implementation.
5. collecting and sharing of data that demonstrates analysis of student learning.
6. providing notes of modeled lessons, mentoring, coaching, and/or collegial conversations.
7. providing evidence of an effective learning center created for the classroom.
8. creating an effective demonstration of best practices using technology.

EVALUATION OF PARTICIPANTS

Participants must demonstrate a mastery of the component's specific objectives as measured by assessments, or other valid measures.

The participants will demonstrate mastery of specific objectives as indicated by valid measures of performance as required in Florida Statute 231.508 (1) .

COMPONENT EVALUATION

Participants and instructors will assess the degree to which the activities addressed the specific objectives and will make recommendations for revisions through a component evaluation.