



MATHEMATICS ACADEMIES

DESCRIPTION: A five-day, face-to-face summer academy, in June and July 2013 will bring special and general educators together to focus on mathematics. Fall and spring one-day follow-up meetings will be offered.

CONTENT: The focus for 2013-2014 is enhanced teacher content knowledge and instructional practices in mathematics resulting in student achievement gains in math, especially among special education students. Teachers should deepen their understanding of mathematics to meet the rigor of the WVNxGCSOs and move from a rote understanding of procedures to a deeper understanding of concepts.

WVNxGCSOs (High/Middle/Elementary School) - Deepen understanding of how to implement student-centered classrooms and apply Standards for Mathematical Practice into lessons; discuss and model best-practice instructional strategies to support NxGCSOs; analyze exemplary research-based versions of common core tasks for rigor; and build teacher capacity for developing their own rigorous student-centered tasks.

Algebraic Thinking (High/Middle School) - Analyze mathematical tasks; examine multiple representations of functions; explore ratio, rate and proportional reasoning from a functional perspective; compare linear, quadratic and exponential functions; and use technology to explore functions.

Early Fraction Concepts (Elementary School) - Investigate multiple representations of fractions; connect fractions as parts to whole and whole to parts; explore equivalent fractions; determine fractional representations given parts of the whole; compare and order fractions; examine fractions as division; and use models of fractions to solve problems.

Geometry (High/Middle School) - Complete and describe basic geometric constructions; use the formula for the area of a rectangle to calculate the area of other shapes; perform transformations of geometric figures on the coordinate plans; and explore the volumes of prisms, cylinders, pyramids, and spheres.

PARTICIPANTS: It is recommended that counties select special educators and general educators in co-teaching partnerships or special educators in pull-out classes who are serving students taking the WESTEST2.

DATES/LOCATIONS: The Math Academies will occur in three (3) locations on three (3) separate sets of dates accommodating three hundred thirty-one (331) teachers as follows:

- June 10-14 Bridgeport Conference Center Bridgeport, WV
 - Algebraic Thinking-High School (*Cohort 2 only*)
 - Algebraic Thinking-Middle School (*Cohort 2 only*)
 - Early Fraction Concepts-Elementary School (*Cohort 2 only*)
 - Geometry-Middle School

- June 24-28 Beckley-Raleigh County Convention Center Beckley, WV
 - NxGCSOs-High School
 - NxGCSOs-Middle School
 - NxGCSOs-Elementary School
 - Geometry-High School

- July 22-26 Lakeview Resort Morgantown, WV
 - NxGCSOs-High School
 - NxGCSOs-Middle School
 - NxGCSOs-Elementary School
 - Geometry-Middle School
 - Geometry-High School

COST: The WVDE will cover costs of materials and meals for the Math Academy sessions. Each WV county will be issued a grant to finance summer travel and district determined stipends.

REGISTRATION: The special education director after conferring with appropriate county personnel and the selected teachers will register their county's participants online at the following link: <http://wvde.state.wv.us/forms/2013/osp/summer/math.php>

Questions will be addressed by Mary Pat Farrell, Coordinator Office of Special Programs, at mfarrell@access.k12.wv.us.

Please register by May 10 to allow for necessary lodging arrangements to be made.