

**158.842 Definitions for KRS 158.840 to 158.844 -- Committee for Mathematics Achievement -- Membership, purposes, organization, staffing, and duties of committee -- Report to Interim Joint Committee on Education.**

- (1) As used in KRS 158.840 to 158.844, unless the context requires otherwise:
  - (a) "Concepts" means mathematical ideas that serve as the basis for understanding mathematics;
  - (b) "Mathematics" means the curriculum of numbers and computations, geometry and measurements, probability and statistics, and algebraic ideas;
  - (c) "Mathematics coach" means a mathematics leader whose primary responsibility is to provide ongoing support for one (1) or more mathematics teachers. The role of the coach is to improve mathematics teaching practices by working with teachers in their classrooms, observing and providing feedback to them, modeling appropriate teaching practices, conducting workshops or institutes, establishing learning communities, and gathering appropriate and useful resources;
  - (d) "Mathematics diagnostic assessment" means an assessment that identifies a student at risk of failure in mathematics or a student with major deficits in numeracy and other mathematical concepts and skills;
  - (e) "Mathematics intervention program" means an intensive instructional program that is based on valid research and is provided by a highly trained teacher to specifically meet individual students needs;
  - (f) "Mathematics leader" means any educator with a specialization in mathematics who:
    1. Serves in a supervisory capacity, such as mathematics department chair, school-based mathematics specialist, or district mathematics supervisor or coordinator; or
    2. Regularly conducts or facilitates teacher professional development, such as higher education faculty or other mathematics teachers;
  - (g) "Mathematics mentor" means an experienced mathematics coach who typically works with beginning or novice teachers only. The responsibilities and roles of the mentor are the same as those of the coach;
  - (h) "Numeracy" means the development of the basic concepts which include counting, place value, addition and subtraction strategies, multiplication and division strategies, and the concepts of time, money, and length. To be numerate is to have and be able to use appropriate mathematical knowledge, concepts, skills, intuition, and experience in relationship to every day life;
  - (i) "Relationships" means connections of mathematical concepts and skills within mathematics; and
  - (j) "Skills" means actions of mathematics.
- (2) The Committee for Mathematics Achievement is hereby created for the purposes of developing a multifaceted strategic plan to improve student achievement in

mathematics at all levels of schooling, prekindergarten through postsecondary and adult. At a minimum the plan shall address:

- (a) Challenging curriculum that is aligned prekindergarten through postsecondary, including consensus among high school teachers and postsecondary education faculty about expectations, curriculum, and assessment;
- (b) Attitudes and beliefs of teachers about mathematics;
- (c) Teachers' knowledge of mathematics;
- (d) Diagnostic assessment, intervention services, and instructional strategies;
- (e) Shortages of teachers of mathematics, including incentives to attract strong candidates to mathematics teaching;
- (f) Statewide institutes that prepare cadres of mathematics leaders in local school districts, which may include highly skilled retired mathematics teachers, to serve as coaches and mentors in districts and schools;
- (g) Cohesive continuing education options for experienced mathematics classroom teachers;
- (h) Closing the student achievement gap among various student subpopulations;
- (i) Curriculum expectations and assessments of students among the various school levels, prekindergarten, primary, elementary, middle, and high school;
- (j) Content standards for adult education centers providing mathematics curricula;
- (k) Introductory postsecondary education mathematics courses that are appropriate to the wide array of academic programs and majors;
- (l) Research to analyze further the issues of transition from high school or GED programs to postsecondary education mathematics; and
- (m) The early mathematics testing program under KRS 158.803.

Other factors may be included in the strategic plan as deemed appropriate by the committee to improve mathematics achievement of Kentucky students.

- (3) In carrying out its responsibility under subsection (2)(f) of this section, the committee shall:

- (a) Design a statewide professional development program that includes summer mathematics institutes at colleges and universities, follow-up, and school-based support services, beginning no later than June 1, 2006, to prepare teams of teachers as coaches and mentors of mathematics at all school levels to improve student achievement. Teachers shall receive training in diagnostic assessment and intervention. The statewide initiative shall be funded, based on available funds, from the Teachers' Professional Growth Fund described in KRS 156.553. The design shall:
  - 1. Define the curricula focus;
  - 2. Build on the expertise of specific colleges and universities;
  - 3. Place emphasis on mathematics concepts, skills and relationships, diagnostic assessment, intervention services, and instructional strategies;

4. Identify quality control measures for the delivery of each institute;
  5. Establish evaluation procedures for the summer institutes and the other professional development components;
  6. Provide updates and networking opportunities for coaches and mentors throughout the school year; and
  7. Define other components within the initiative that are necessary to meet the goal of increasing student achievement in mathematics;
- (b) Require schools and districts approved to have participants in the mathematics leader institutes to provide assurances that:
1. The district and schools have, or will develop, local mathematics curricula and assessments that align with state standards for mathematics;
  2. There is a local commitment to build a cadre of mathematics leaders within the district;
  3. The district and participating schools will provide in-school support for coaching and mentoring activities;
  4. The mathematics teachers are willing to develop classroom assessments that align with state assessments; and
  5. Students who need modified instructional and intervention services will have opportunity for continuing education services beyond the regular school day, week, or year; and
- (c) In addition to the conditions specified in paragraph (b) of this subsection, the committee shall make recommendations to the Kentucky Department of Education and the Kentucky Board of Education for criteria to be included in administrative regulations promulgated by the board which define:
1. Eligible grant recipients, taking into consideration how this program relates to other funded mathematics initiatives;
  2. The application process and review;
  3. The responsibilities of schools and districts, including but not limited to matching funds requirements, released or extended time for coaches and mentors during the school year, continuing education requirements for teachers and administrators in participating schools, data to be collected, and local evaluation requirements; and
  4. Other recommendations requested by the Kentucky Department of Education.
- (4) The committee shall initially be composed of twenty-five (25) members as follows:
- (a) The commissioner of education or his or her designee;
  - (b) The president of the Council on Postsecondary Education or his or her designee;
  - (c) The president of the Association of Independent Kentucky Colleges and Universities or his or her designee;

- (d) The executive director of the Education Professional Standards Board or his or her designee;
- (e) The secretary of the Education and Workforce Development Cabinet or his or her designee;
- (f) A representative with a specialty in mathematics or mathematics education who has expertise and experience in professional development, especially with coaching and mentoring of teachers, from each of the nine (9) public postsecondary education institutions defined in KRS 164.001. The representatives shall be selected by mutual agreement of the president of the Council on Postsecondary Education and the commissioner of education;
- (g) Two (2) adult education instructors selected by the vice president for Kentucky Adult Education;
- (h) Two (2) elementary, two (2) middle, and two (2) high school mathematics teachers, appointed by the board of the statewide professional education association having the largest paid membership with approval from their respective local principals and superintendents of schools; and
- (i) Three (3) school administrators, with one (1) each representing elementary, middle, and high school, appointed by the board of the statewide administrators' association having the largest paid membership with approval from their respective local superintendents of schools.

When the Center for Mathematics created under KRS 164.525 becomes operational, the executive director of the center shall be added to the committee, which shall then be composed of twenty-six (26) members. Appointments to the committee shall be made no later than thirty (30) days following March 18, 2005, and the first meeting of the committee shall occur no later than thirty (30) days following appointment of the members.

- (5) A majority of the full membership shall constitute a quorum.
- (6) Each member of the committee, other than members who serve by virtue of their positions, shall serve for a term of three (3) years or until a successor is appointed and qualified, except that the initial appointments shall be made in the following manner: six (6) members shall serve a one (1) year term, six (6) members shall serve a two (2) year term, and eight (8) members shall serve a three (3) year term.
- (7) A temporary chair of the committee shall be appointed prior to the first meeting of the committee through consensus of the president of the Council on Postsecondary Education and the commissioner of education, to serve ninety (90) days after his or her appointment. Prior to the end of the ninety (90) days, the committee shall elect a chair by majority vote. The temporary chair may be a nominee for the chair by majority vote. Thereafter, a chair shall be elected each calendar year. An individual may not serve as chair for more than three (3) consecutive years. The chair shall be the presiding officer of the committee, and coordinate the functions and activities of the committee.
- (8) The committee shall be attached to the Kentucky Department of Education for administrative purposes. The commissioner of education may contract with a

mathematics-trained professional to provide part-time staff support to the committee. The commissioner of education and the president of the council shall reach consensus in the selection of a person to fill the position. The person selected shall have a graduate degree, a mathematics major, and teaching or administrative experience in elementary and secondary education. The person shall not be a current employee of any entity represented on the committee. The department shall provide office space and other resources necessary to support the staff position and the work of the committee.

- (9) The committee, under the leadership of the chair, may organize itself into appropriate subcommittees and work structures to accomplish the purposes of the committee.
- (10) Members of the committee shall serve without compensation but shall be reimbursed for necessary travel and expenses while attending meetings at the same per diem rate promulgated in administrative regulation for state employees under provisions of KRS Chapter 45. Funds shall be provided school districts to cover the cost of substitute teachers for those teachers on the committee at each district's established rate for substitute teachers.
- (11) If a vacancy occurs within the committee during its duration, the board of the statewide professional education association having the largest paid membership or the board of the statewide administrators association having the largest paid membership or the president of the Council on Postsecondary Education, as appropriate, shall appoint a person to fill the vacancy.
- (12) The committee shall:
  - (a) Present a draft strategic plan addressing the requirements in subsection (1) of this section and other issues that arose during the work of the committee to the Education Assessment and Accountability Review Subcommittee no later than August 2005;
  - (b) Present the strategic plan for improving mathematics achievement to the Interim Joint Committee on Education by July 15, 2006, which shall include any recommendations that require legislative action; and
  - (c) Provide a final written report of committee activities to the Interim Joint Committee on Education and the Legislative Research Commission by December 1, 2006.
- (13) The committee shall have ongoing responsibility for providing advice and guidance to policymakers in the development of statewide policies and in the identification and allocation of resources to improve mathematics achievement. In carrying out this responsibility, the committee shall periodically review the strategic plan and make modifications as deemed appropriate and report those to the Interim Joint Committee on Education.
- (14) The committee shall collaborate with the Center for Mathematics to ensure that there is ongoing identification of research-based intervention programs for K-12 students who have fallen behind in mathematics, rigorous mathematics curricula that prepare students for the next level of schooling, research-based professional

development models that prepare teachers in mathematics and pedagogy, and strategies for closing the gap between high school or GED and postsecondary mathematics preparation.

**Effective:** June 25, 2009

**History:** Amended 2009 Ky. Acts ch. 11, sec. 51, effective June 25, 2009. -- Amended 2006 Ky. Acts ch. 211, sec. 89, effective July 12, 2006. -- Created 2005 Ky. Acts ch. 164, sec. 2, effective March 18, 2005.

**Legislative Research Commission Note (3/18/2005).** 2005 Ky. Acts ch. 164, sec. 2, subsection (3), contained a reference to "subsection (1)(f) of this section." This reference should have been changed to "subsection (2)(f) of this section" when the Senate committee substitute inserted a new subsection (1). The Statute Reviser, under the authority of KRS 7.136, has made the change.