



Lillian M. Lowery, Ed.D.  
State Superintendent of Schools

200 West Baltimore Street • Baltimore, MD 21201 • 410-767-0100 • 410-333-6442 TTY/TDD

**TO:** Members of the State Board of Education  
**FROM:** Lillian M. Lowery, Ed.D. *L. Lowery*  
**DATE:** December 10, 2013  
**SUBJECT:** COMAR13A.12.02.29, Instructional Leader: STEM, PreK- grade 6  
**NEW**

---

**PURPOSE:**

The purpose of this item is to present for the Board's review a proposed new regulation, COMAR13A.12.02.29, Instructional Leader: STEM, PreK- grade 6, and to provide the opportunity to convene a Joint Conference Committee should you so desire. The Professional Standards and Teacher Education Board (PSTEB) voted to publish the proposed regulation at its October 2013 meeting.

**BACKGROUND INFORMATION:**

At the PSTEB's August and September, 2012 meetings, staff presented information regarding the *Race To The Top (RTTT)*, Elementary STEM Project. Maryland's *STEM Standards of Practice* was shared as well as the need for elementary teachers to have content in STEM related areas to support students in thinking more critically.

Staff also discussed the potential need for an endorsement in this area for teachers already in the classroom and suggested using the same format as the Mathematics Instructional Leader for a proposed endorsement.

Staff convened a Work Group which included a variety of constituents: two year and four year colleges and universities, local school system STEM Coordinators, local school system certification personnel, and MSDE staff. The Work Group met on May 8, July 16, and July 31, 2013. Numerous resources, as well as practical experiences with STEM education, provided the impetus for discussion as the Work Group identified the potential components of an endorsement. Following the final meeting, a draft regulation was distributed for feedback; the attached draft represents the collective input of the Work Group. The PSTEB voted to move forward with the publication of the proposed regulation.

**SUMMARY:**

Maryland's application for *Race To The Top* included provisions for the development of STEM preparation programs at the elementary level. Currently many teacher preparation programs are offering coursework in STEM for elementary teachers. Local school systems are also currently providing STEM training for teachers who are also serving as STEM resources for their respective schools. To recognize teacher leadership within the school setting, the Work Group recommended the development of an endorsement in Instructional Leader: STEM, PreK- grade 6.

Members of the State Board of Education  
December 10, 2013  
Page 2

**ACTION:**

This item is presented for information and to provide the State Board of Education the opportunity, should the Board desire, to request that a Joint Conference Committee be convened to discuss the regulatory proposal prior to its publication.

LML: jes

Attachment

**.29 Instructional Leader: STEM (Grades PreK—6).**

*To add an endorsement as Instructional Leader: STEM, grades PreK—6, an applicant shall:*

*A. Hold a valid, professional certificate with certification in early childhood education or elementary education.*

*B. Complete a minimum of 18 semester hours of post-baccalaureate credit or Department-approved Continuing Professional Development credits, to include the following:*

*1. Twelve (12) semester hours in STEM education which integrates a balance of the following content:*

*(a) Authentic problem-based and project-based learning;*

*(b) Essential skills including questioning, spatial reasoning, communication, critical thinking, and problem solving;*

*(c) Engineering design process;*

*(d) Application of scientific practices and content;*

*(e) Application of mathematical practices and content;*

*(f) Technology literacy; and*

*(g) Collaborative learning.*

*2. Three semester hours or the equivalent in leadership knowledge and skills in providing professional learning in a school/district setting; and*

*3. At least 3 semester hours or the equivalent in a supervised practicum or school-based internship in which the applicant works with a range of students in grades PreK—6 and adult learners in a variety of professional development settings.*

*C. Present verification of 27 months of satisfactory teaching experience.*