| **Virginia Board of Education Agenda Item** | **Seal of the Commonwealth of Virginia** |
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# Agenda Item: E

## Date: June 20, 2019

**Title:** **Final Review of Proposed Changes to the 2019 High School STEM Competition Team Grant Guidelines.**

### Presenter: Dr. Tina Manglicmot, Director of Science, Technology, Engineering, and Mathematics

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## Purpose of Presentation:

Action required by state or federal law or regulation.

**Executive Summary:**

In 2016, Senate Bill 246 established and created the STEM Competition Team Grant program. The 2016 General Assembly and Governor McAuliffe approved state funding of $100,000 for new team grants for fiscal years 2017 and 2018. The 2018 General Assembly and Governor Northam approved to continue state funding for the grant for fiscal years 2019 and 2020. The grant awards are available to Virginia schools/divisions that have demonstrated an interest in establishing new STEM competition teams and will serve as model schools for the STEM Competition Team Initiative. State funding of up to $5,000 per school year is currently available to high schools with at least 40 percent of the students qualifying for free or reduced lunch. The purpose of the STEM Competition Team Grant Initiative is to increase awareness of careers in science, technology, engineering and mathematics (STEM) among teachers and students through STEM-related, problem/project-based, team-building activities.

Senate Bill 246 also contained a sunset clause that provided an expiration of the bill on July 1, 2019. No further action to extend the legislation was taken by the 2019 General Assembly yet Item 235 of the 2019 Appropriation Act continues to be in effect for fiscal year 2020. The language of the Appropriations Act does not contain any of the guidelines found within SB 246. This provides flexibility and allows the Department to review current guidelines and propose new guidelines that align to the needs of schools in Virginia.

In the past, the number of elementary and middle schools interested in the funding opportunity equaled the number of high schools that pursued funding for the development of new STEM competition teams. Due to language within SB 246, the Department had to turn away elementary and middle schools looking to build new STEM competition teams. As the years progressed, the number of interested high schools decreased dramatically while numbers of elementary and middle schools who asked for funding increased. In fiscal year 2018, the Department of Education only awarded 14 out of 20 possible grant awards based on high school level interest leaving $30,000 of the $100,000 of the program unallocated.

Prior guidelines included the following qualifications:

* 1. All students are in high school
  2. After-School Program
  3. STEM Competition Team must be newly formed
  4. Greater than 40% of students at the school are eligible Free or Reduced Lunch

The Department of Education would like to propose new guidelines (Attachment A) making funds available to all K-12 schools where at least 40 percent of the student population qualify for free or reduced lunch and allow for new teams to meet either before school, after school, or during the school day.

## Action Requested:

Final review: Action requested at this meeting.

**Superintendent’s Recommendation:**   
The Superintendent of Public Instruction recommends that the Board of Education approve the proposed revisions to the guidelines for the STEM Competition Team Grant to allow for elementary and middle schools to apply.

## Rationale for Action:

Approving revisions to the guidelines for the STEM Competition Team program will provide support to schools attempting to build early interest in STEM. Research supports engaging students early in STEM increases motivation, engagement and self-efficacy in STEM disciplines and leads to retention in STEM fields later in life.

## Previous Review or Action:

No previous review or action.

Background Information and Statutory Authority:   
In 2016, Senate Bill 246 established and created the STEM Competition Team Grant program. The 2016 General Assembly and Governor McAuliffe approved state funding of $100,000 for new team grants for fiscal years 2017 and 2018. The 2018 General Assembly and Governor Northam approved to continue state funding for the grant for fiscal years 2019 and 2020.

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Timetable for Further Review/Action:  
Upon approval by the Board of Education, a Superintendent’s Memo will be sent to all school divisions with the new guidelines and the timeline for grant submissions will be provided.

## Impact on Fiscal and Human Resources:

Costs associated with the implementation of the STEM Competition Team program will be covered through the 2019 Appropriations Act.

**Attachment A**

**STEM Competition Team Grant Initiative**

**A State-funded Initiative for PK-12 Schools**

**Guidance for Submission of Application**

**to**

**Virginia Department of Education**

**Office of Science, Technology, Engineering and Mathematics**

**Application due on or before**

**September 20, 2019**

**VIRGINIA DEPARTMENT OF EDUCATION**

**OFFICE OF SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS**

**STEM COMPETITION TEAM GRANT INITIAIVE**

**A STATE-FUNDED INITIATIVE**

**Guidance for Submission of Application**

**OVERVIEW**

1. **GOALS**

* Increase awareness of careers in science, technology, engineering and mathematics (STEM) among teachers and students.
* Engage students in extracurricular, STEM-related team-building activities through problem-based, project-based team competitions.
* Foster STEM Competition Team development and growth throughout Virginia.
* Focus on STEM literacy skills through hands-on experiences. These experiences will include problem-driven integrated STEM (science, technology, engineering, and mathematics) activities that use collaboration, communication, creativity, critical thinking, and ethics to explore the challenges and opportunities of the STEM Competition Team Initiative.

1. **ELIGIBLE SCHOOLS**

* Schools that have demonstrated an interest in establishing new STEM competition teams and will serve as model schools for the STEM Competition Team Initiative.
* Public PK-12 schools at which **at least 40 percent** of the students qualify for free or reduced lunch.
* A school division may apply for grant funding to establish and then support STEM competition teams for one or more qualifying schools (an application for grant funding is to be submitted for **each** proposed STEM competition team school program in the division).
* Grants to qualifying schools are not to exceed $5,000 per school per year. Total STEM competition team grant awards to a division are not to exceed $10,000 per year.
* Schools applying for first-year grants can use the funds for planning purposes and will be eligible to receive a second-year of funding (initiative expansion) grant in the subsequent year, pending availability of funding.
* Schools seeking second-year grants and meeting all eligibility requirements will be given priority over other grant applicants.
* Grants shall be evaluated in the order that each completed eligible application is received. In the event that the amount of eligible grants requested in a fiscal year exceeds the funds available, such grant applications shall be rolled over to the next fiscal year.
* The completed application consisting of contact information; a proposed budget; a statement of assurance; and an abstract not to exceed a total of one page that briefly outlines the plan to carry out the initiative requirements, criteria for selection of students to participate, and summary of the overall evaluation process.
* The STEM Competition Team Grant Initiative Application is due to the Virginia Department of Education, Office of Science, Technology, Engineering and Mathematics on or before September 20, 2019.

1. **PROGRAM SITE REQUIREMENTS**

* Must be located on a public school campus.
* Must provide appropriate insurance coverage.
* Must meet requirements to support all eligible activities that may include guest speakers, field trips, problem-driven projects, and a culmination/recognition program.
* Must provide required equipment and classroom/lab environment conducive for teamwork.
* Provide applicable instructional resources and materials.

1. **ELIGIBLE STUDENTS**

* Students who have expressed an interest in STEM-related disciplines are eligible to participate in the initiative.
* Students who have expressed an interest in STEM-related course, careers and/or who have started a program of study related to the STEM sector are eligible to participate in the initiative.
* Each student participant and parent or guardian shall sign an assurance that the student agrees to follow the school’s Code of Conduct during the initiative and all related initiative activities.

1. **STAFFING**

* One or more teachers/school administrators that have appropriate knowledge to support a student team for the applicable STEM competition.
* Other team members involved in the planning phase may include representatives from business and industry, postsecondary education, parent associations, student leadership organizations, local advisory committees, and community economics/workforce leaders.

1. **ROLE OF CORE PLANNING AND IMPLEMENTATION TEAM**

The core implementation team shall be responsible for identifying an applicable STEM competition; preparing the school site; communicating with the Virginia Department of Education (VDOE) staff; preparing communication materials for parents; recruiting students, business and industry partners, and postsecondary education partners; obtaining insurance coverage; arranging any student transportation and meals; implementing and evaluating the entire STEM Competition Team Initiative experience; and completing all required data reporting to the VDOE.

1. **EVALUATION AND NEXT STEPS**

A written evaluation must be submitted by the core implementation team that will include activities and outcomes; and outline next steps for continued instruction, promotion, and recruitment to increase the number of students that participate in a STEM-related program.

1. **TIMELINE**

September 20, 2019 STEM Competition Team Grant Application Due to VDOE

October 11, 2019 Send Grant Award Notifications to School Divisions

October 23, 2019 Distribute Awarded Grant Funds to School Divisions

October 11-June 30, 2020 Prepare/Implement STEM Competition Team Initiative

July 15, 2020 Final Closeout - Report on use of funding and evaluation report due to VDOE.

**Budget Expenditures and Reimbursements Information**

Upon submission and approval of the division’s eligible school *STEM Competition Team Grant-Application Packet*, the school division will receive funds up to $5,000 for each school based on the submitted application. The school division’s state-funded allocation up to $10,000 will be received by September 20, 2019, based on confirmation of the resources needed for planning and implementation of the STEM Competition Team Grant Initiative and revised budget (if applicable).

Allowable uses of the state-funded allocation include, but are not limited to:

1. Instructional resources and materials (instructional software programs, DVDs, textbooks, workbooks, reference materials, program materials and supplies, etc.)
2. Bus transportation (Transportation costs for students to and from school site to STEM competition site.)
3. Meals (meal and snack costs for staff and students not to exceed state rates for breakfast, lunch and two nutritional snacks)
4. STEM equipment (equipment that is unique and required for the STEM completion Team Initiative). Note: Computers cannot be purchased with STEM Competition Team Grant Initiative state funds except where a specialized device is required.
5. Staff salaries/wages/stipends not to exceed 10% of the grant award amount.

All STEM Competition Team Grant initiative state-allocated funds must be expended or encumbered by June 30, 2020.

The STEM Competition Team Grant Initiative financial expenditure report and documentation must be submitted to the Virginia Department of Education, office of Science, Technology, Engineering and Mathematics no later than July 15, 2020. Directions and forms will be provided with the notification letter. If you have any questions, please contact Dr. Tina Manglicmot by email at [Tina.Manglicmot@doe.virignia.gov](mailto:Tina.Manglicmot@doe.virignia.gov) or by phone at (804) 786-2481.