



STATE OF MICHIGAN
DEPARTMENT OF EDUCATION
LANSING


RICK SNYDER
GOVERNOR

BRIAN J. WHISTON
STATE SUPERINTENDENT

MEMORANDUM

DATE: August 29, 2017

TO: State Board of Education

FROM: Brian J. Whiston, Chairman 

SUBJECT: Approval of Criteria for Section 99h: Competitive For Inspiration and Recognition of Science and Technology (FIRST) Robotics Grants

From the appropriation made under Section 99h of the 2017 School Aid Act, \$2,500,000 has been allocated for competitive grants that expand opportunities to improve mathematics, science and technology skills by participating in FIRST Robotics for public schools. An additional \$300,000 has been appropriated for competitive grants that expand opportunities to improve mathematics, science and technology skills by participating in FIRST or Science Olympiad for nonpublic schools. The grant applications are scheduled to be available September 26, 2017, with a November 7, 2017 due date.

It is recommended that the State Board of Education approve the criteria for Section 99h: Competitive FIRST Robotics Grants as attached to the State Superintendent's memorandum dated August 29, 2017.

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MICHIGAN STATE BOARD OF EDUCATION

Criteria for Section 99h: Competitive FIRST Robotics Grants

The State Board of Education has adopted guiding principles and strategic goals for developing Michigan into a top 10 education state in 10 years.

To the extent possible, all grant criteria and grant awards will serve to further attain the above goals.

GUIDING PRINCIPLES AND STRATEGIC GOALS THIS CRITERIA SUPPORT

This grant supports the guiding principles and strategic goals of the State Board of Education (SBE) and Michigan Department of Education (MDE) for goals two, three, four, and six through several key activities. The FIRST (For Inspiration and Recognition of Science and Technology) Robotics Program supports goal two, strategy 2.6 and 2.7 by engaging students in well-rounded learning experiences in Science, Technology, Engineering, and Mathematics (STEM), language, business, culture, and creativity, as well as providing access to personalized learning technologies that support and enhance those learning experiences. The FIRST Robotics Program supports goal three by providing coaches and mentors with opportunities to receive additional professional development and access to State Continuing Education Clock-Hours. The FIRST Robotics Program supports goal four by providing funding to districts with high-risk factors to ensure access to equitable resources. Finally, the FIRST Robotics Program supports goal six by requiring the establishment of partnerships between teams and job providers, community colleges, and higher education to assure a prepared and quality future workforce.

PURPOSE / BACKGROUND OF GRANT

Type of Grant Program:

- New Continuing Formula
 Competitive Designated in Legislation or MDE Proposal

The 2017 School Aid Act appropriates \$2,500,000 for the 2017-18 fiscal year for competitive grants to districts that provide pupils in grades K-12 with expanded opportunities to improve mathematics, science and technology skills by participating in events hosted by a science and technology development program known as FIRST Robotics, including FIRST Lego League Jr, FIRST Lego League, FIRST Tech Challenge, and FIRST Robotics Competition.

An additional \$300,000 from general fund is appropriated for the 2017-18 fiscal year for a competitive grant to nonpublic schools that provide pupils in grades K-12 with expanded opportunities to improve mathematics, science and technology skills by participating in events hosted by a science and technology development program known as FIRST Robotics, including FIRST JR Lego League, FIRST Lego

League, FIRST Tech Challenge, and FIRST Robotics Competition or participation in Science Olympiad programs.

The grant funding, as outlined in legislation, will be used for the specific purpose of providing Coach Stipend Awards, Support Awards, and Advancement Awards for FIRST Robotics. The Coach Stipend Awards will provide funds to coaches for their dedicated time to the program. The Support Awards provide funds for teams to register for FIRST Robotics events, purchase competition kits, supplies and materials, and support the team overall. The Advancement Awards provide funds for the team to cover expenses related to advancing to state and/or world competitions. Nonpublic School FIRST Robotics Awards will be made for each type of FIRST Robotics or for Science Olympiad program.

Grants funded under this section are intended to increase the number of pupils demonstrating proficiency in science and mathematics on the state assessment and to increase the number of pupils who are college and career ready upon high school graduation.

CRITERIA

Date criteria were last approved: September 14, 2016

Source of Criteria:

- | | |
|---|---|
| <input type="checkbox"/> Federal Law, Rules or Regulation | <input checked="" type="checkbox"/> Proposed by Staff |
| <input checked="" type="checkbox"/> State Law or Rules | <input type="checkbox"/> Defined in MDE's Approved Grant Proposal to the Funder |

The main criteria upon which grantees will be selected are the following:

Defined in Statute:

To be eligible for a grant, a district will demonstrate that it has:

- o Established a partnership for the purpose of the FIRST Robotics program with at least one sponsor, business entity, higher education institution, or technical school.
- o Submitted a spending plan.
- o Agreed to pay at least 25 percent of the cost of the FIRST Robotics program Coach Stipend and Advancement Award.
- o Agreed to provide matching funds for the Support Award from private or local sources equal to at least 50 percent of the costs of participation in an event.

Proposed by Staff:

Each applicant must:

- Be registered for the current season with www.usfirst.org for the program that corresponds with the FIRST Progression of Programs in Michigan, namely:
 - FIRST Lego League Jr – Early elementary (K-3)
 - FIRST Lego League – Late elementary (4-6)
 - FIRST Tech Challenge – Middle School (6-8)
 - FIRST Robotics Competition – High School (9-12)
- Provide MDE with an electronic roster, which includes student Unique Identification Code (UIC).
- Have a current FIRST Robotics program, team number, and coach in place for the current season.
- Participate in the following number of FIRST in Michigan competitions during the current season:
 - Two district competitions for all high school FIRST Robotics Competition teams
 - One qualifying event for all middle school FIRST Tech Challenge teams and all late elementary FIRST Lego League teams
 - One expo for all early elementary FIRST Lego League Jr teams
- Be willing to offer elective high school credits for students who have successfully logged 60 hours, provided the team attends a minimum of two district competitions.
- Be willing to participate in the digital badging program established by the statewide FIRST Robotics team of coaches.

Each nonpublic school applicant must:

- Be registered with the MDE and meet all state reporting requirements for nonpublic schools.

Each nonpublic school applicant selecting to apply for Science Olympiad funding must:

- Establish a partnership for the purpose of the Science Olympiad program with at least one sponsor, business entity, higher education institution, or technical school.
- Submit a spending plan.
- Agree to pay at least 25 percent of the cost of the Science Olympiad program coach stipend and advancement award.
- Agree to provide matching funds for the Support Award from private or local sources equal to at least 50 percent of the costs of participation in an event.

- Provide MDE with an electronic roster, which includes student Unique Identification Code (UIC). Participation in the Michigan Data Hubs to speed this process will be preferred.
- Be registered for the current season with Science Olympiad program and have a coach in place.
- Participate in a minimum of one Science Olympiad tournament.
- Be willing to offer elective high school credits for students who have successfully logged 60 hours and participated in at least one tournament event.
- Be willing to participate in a digital badging program.

In support of legislative intent, all awards will be distributed to districts in a competitive and equitable manner that will maximize the number of teams that will be able to receive funding. Preference will be given to applicants that support under-represented areas by prioritizing:

- High economically disadvantaged populations (focus and priority based schools).
- Schools that serve a high percentage of low income families (based on Free and Reduced Lunch count data).
- First time teams participating in FIRST Robotics starting with the high school program and working down to kindergarten and first time primary teams for Science Olympiad.
- Districts that establish feeder teams (teams that generate student populations that will potentially move up to high school or middle school programs).
- Districts in a broad geographical distribution.

ELIGIBLE APPLICANTS AND TARGET POPULATION SERVED

Eligible applicants are districts and nonpublic schools.

The target population is students in grades K-12.

TOTAL FUNDS AVAILABLE

\$2,500,000 for districts and an additional \$300,000 for nonpublic schools.

The MDE understands the Legislature intends for these funds to be spent in the current year and may not be carried forward.

STATUTE

P.A. 108 of 2017, School Aid, Section 99h

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