

# **POLICY**

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## **FRANKLIN TOWNSHIP BOARD OF EDUCATION**

**File Code: 6142.15**

### INTEGRATED SCIENCE TECHNOLOGY ENGINEERING MATHEMATICS: I-STEM EDUCATION

The board of education recognizes that integrating science, technology, engineering and mathematics education throughout academic and extracurricular programs improves and enhances achievement. The district shall be an active participant in our nation's efforts to expand the capacity and diversity of the I-STEM workforce pipeline to prepare more students for the best jobs of the future that will keep the U.S. innovative, secure and competitive. The district shall offer an educational program that promoted effective and innovative teaching and student achievement in science, technology, engineering and mathematics providing the skills essential for success in the 21<sup>st</sup> century job market.

In addition to curriculum and programs offered during the school year, the board shall support within the confines of the district budget, I-STEM initiatives, programs and activities in out-of-school-time settings such as before-school, afterschool and summer learning programs to further engage children and youth and spark their interest in I-STEM.

The board of education directs the chief school administrator or his or her designee(s) to develop and integrate I-STEM initiatives in the district's educational programs, extracurricular programs and/or other activities sponsored by the district. Wherever possible, I-STEM programming should be articulated across subjects and grades. The chief school administrator or his or her designee may develop and implement, with board approval, programming initiatives including but not limited to:

- A. Research based curriculum and programs that ensure that student performance in science alongside mathematics and reading is effectively evaluated and measured.
- B. Hands-on, inquiry-based learning activities, such as learning about the engineering design process, working directly with I-STEM professionals through internships, and participating in field experiences and I-STEM-related competitions.
- C. Hands-on, inquiry-based learning activities that incorporate science, technology, engineering and mathematics in all district programs involving district green initiatives such as energy and resource conservation, recycling, and organic gardens.
- D. Targeted initiatives that promote the inclusion of underrepresented minorities, women and at-risk populations in I-STEM education to supports the capacity and diversity of the I-STEM workforce pipeline.

- E. Programs that integrate and align K-12 education with higher-education programs and initiatives with workforce needs.
- F. Cooperative programming with community colleges to supplement district opportunities for I-STEM education and prepare students for continuing I-STEM education and for the I-STEM workforce.
- G. District participation in research projects the further the development of a rigorous education research base to inform innovations in teaching, learning, and educational materials development.
- H. Hiring practices that attract and retain talented and effective I-STEM educators from all backgrounds.
- I. Professional development programs for staff, which are dedicated to effective I-STEM educator training and preparation.
- J. Programs for community and parent/guardian educations about and involvement in district I-STEM initiatives and programs.
- K. Pursuing available funding mechanisms: federal and state as well as community organizations and business partnerships to promote I-STEM-related educational innovation activities.
- L. The establishment of public-private partnerships and incentives that promote business and industry engagement in I-STEM education activities with the district schools.

Date Adopted: 9/8/14

Key Words

Science, Technology, Engineering, Mathematics, STEM, I-STEM, 21<sup>st</sup> Century Classroom

Possible

Cross References:

	*1100 Communicating with the public
*1200	Participation by the public
*1220	Ad Hoc committee
*1230	School connected organizations
*1330	Use of facilities
*3500.1	Conservation and sustainability
*4131/4131.1	Staff development
*4213/4213.1	Staff development
*6140	Curriculum adoption
*6141	Curriculum design and development
*6142.10	Internet safety and technology
*6142.11	Career and technical education
*6145	Extracurricular activities

\*Indicates the policy is included in the Critical Policy Reference Manual.