

**SENATE . . . . . No. 273**

---

**The Commonwealth of Massachusetts**

\_\_\_\_\_  
**In the Year Two Thousand Nine**  
\_\_\_\_\_

An Act to improve STEM education in the Commonwealth..

*Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:*

1 SECTION 1. Section 1G of Chapter 15 of the General Laws, as appearing in the 2006  
2 Official Edition, is hereby amended at line 35 after the word “mathematics”, by inserting the  
3 following:-

4 The council shall create a task force composed of members who have demonstrated  
5 scholarship or creativity in, or distinguished service to science, technology, engineering or  
6 mathematics, and shall be broadly representative of those areas. The task force shall be  
7 comprised of 14 members. The board shall appoint 11 members, eight of whom shall be science  
8 and mathematics educators in public schools throughout the Commonwealth. The eight members  
9 shall include one science educator from a public high school, one mathematics educator from a  
10 public high school, one science educator from a public middle school, one mathematics educator  
11 from a public middle school, one science educator from a public elementary school, one  
12 mathematics educator from a public elementary school and two curriculum coordinators  
13 representing distinct STEM subject areas. The task force shall also include three members  
14 representative of business firms in the areas of science, technology, engineering or mathematics;

15 two of whom shall represent non-profit science or math education research organizations. The  
16 Robert H. Goddard Council on Science, Technology, Engineering and Mathematics Education  
17 established under section 4A of chapter 15A shall appoint three representatives to serve on the  
18 task force.

19 The task force shall investigate and study STEM education in the Commonwealth,  
20 including but not limited to the following: a study of current science laboratory facilities and  
21 equipment in public schools for all grade levels, a review of curricula used for science and math  
22 education in grades kindergarten through twelve, and a comprehensive review of current  
23 professional development programs in the science, technology, engineering and math areas  
24 throughout the Commonwealth. The task force shall develop recommendations for the  
25 improvement of curricula and facilities for science, technology, engineering and math education  
26 in grades kindergarten through twelve. Said recommendations shall include ways to increase  
27 inquiry based science education. The first recommendations shall be completed by June 30,  
28 2010.

29 SECTION 2. Chapter 70B of the General Laws is hereby amended by inserting after  
30 section 3E the following new section:-

31 Section 3F: (a) The School Building Authority, in consultation with the department of  
32 elementary and secondary education shall develop science education facilities standards and  
33 regulations for grades kindergarten through twelve. These standards and regulations shall apply  
34 to all new school construction projects for the approval of school building construction and  
35 applicable school renovation projects.

36 (b) In the development of these standards and regulations, the authority shall consult with  
37 the department of elementary and secondary education and the Robert H. Goddard Advisory  
38 Council on Science, Technology, Engineering and Mathematics Education. The regulations and  
39 standards shall include, but need not be limited to:

40 (1) the establishment of rigorous safety standards for the use of all laboratory equipment;

41 (2) facilities and equipment requirements consistent with inquiry-based scientific  
42 teaching and learning methods and designed for multi-disciplinary use;

43 (3) the establishment of minimum requirements for facilities and related equipment for  
44 grades 9-12 in the areas of general science, biology, chemistry, physics, and technology and  
45 engineering;

46 (4) the establishment of limits for cost per square foot of laboratory space for general  
47 science, biology, chemistry, physics, technology and engineering;

48 (5) guidelines for design standards for combination classroom and laboratory facilities;

49 (6) minimum requirements for length of use.