

112TH CONGRESS
1ST SESSION

S. 619

To assist coordination among science, technology, engineering, and mathematics efforts in the States, to strengthen the capacity of elementary schools, middle schools, and secondary schools to prepare students in science, technology, engineering, and mathematics, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MARCH 17, 2011

Mr. UDALL of New Mexico introduced the following bill; which was read twice and referred to the Committee on Health, Education, Labor, and Pensions

A BILL

To assist coordination among science, technology, engineering, and mathematics efforts in the States, to strengthen the capacity of elementary schools, middle schools, and secondary schools to prepare students in science, technology, engineering, and mathematics, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “STEM Support for
5 Teachers in Education and Mentoring (STEM) Act” or
6 the “STEM² Act”.

1 **SEC. 2. STEM EDUCATION PLANNING AND TRAINING.**

2 (a) IN GENERAL.—Title II of the Elementary and
3 Secondary Education Act of 1965 (20 U.S.C. 6601 et
4 seq.) is amended by adding at the end the following:

5 **“PART E—STEM EDUCATION PLANNING AND**
6 **TRAINING**

7 **“SEC. 2501. DEFINITIONS.**

8 “In this part:

9 “(1) INDIAN TRIBE; TRIBAL ORGANIZATION.—

10 The terms ‘Indian tribe’ and ‘tribal organization’
11 have the meanings given those terms in section 4 of
12 the Indian Self-Determination and Education Assist-
13 ance Act.

14 “(2) STEM.—The term ‘STEM’ means science,
15 technology, engineering, and mathematics.

16 **“SEC. 2502. PLANNING GRANTS.**

17 “(a) PURPOSE.—The purpose of this section is to ad-
18 dress the lack of coordination among STEM education ef-
19 forts in the States.

20 “(b) DEFINITION OF ELIGIBLE ENTITY.—In this sec-
21 tion, the term ‘eligible entity’ means a State, Indian tribe,
22 tribal organization, nonprofit organization, or institution
23 of higher education.

24 “(c) GRANTS AUTHORIZED.—From amounts made
25 available to carry out this section, the Secretary shall
26 carry out a program of awarding, on a competitive basis,

1 planning grants to eligible entities to enable the eligible
2 entities to—

3 “(1) develop effective State or tribal STEM
4 networks for communication and collaboration that
5 include school teachers, institutions of higher edu-
6 cation, nonprofit organizations, businesses, Federal,
7 State, and local governments, and any other relevant
8 entities; and

9 “(2) through such State STEM networks, iden-
10 tify future STEM skills needed for STEM and non-
11 STEM occupations.

12 “(d) APPLICATION.—An eligible entity desiring a
13 grant under this section shall submit an application to the
14 Secretary at such time, in such manner, and containing
15 such information as the Secretary may require.

16 “(e) REPORTS.—

17 “(1) REPORTS TO THE SECRETARY.—An eligi-
18 ble entity receiving a grant under this section shall
19 submit to the Secretary an annual report describing
20 the progress made on the grant.

21 “(2) REPORTS TO CONGRESS.—Not later than
22 3 years after the date of enactment of the STEM
23 Support for Teachers in Education and Mentoring
24 (STEM) Act, and every 3 years thereafter, the Sec-

1 retary shall submit a report to Congress regarding
2 the program supported under this section.

3 **“SEC. 2503. TRAINING PROGRAM GRANTS.**

4 “(a) PURPOSE.—The purpose of this section is to
5 strengthen the capacity of teachers, elementary schools,
6 middle schools, and secondary schools to inspire and pre-
7 pare students for STEM careers and build STEM literacy.

8 “(b) DEFINITION OF ELIGIBLE ENTITY.—In this sec-
9 tion, the term ‘eligible entity’ means a State, Indian tribe,
10 tribal organization, local educational agency, institution of
11 higher education, or nonprofit organization.

12 “(c) GRANTS AUTHORIZED.—

13 “(1) IN GENERAL.—From amounts made avail-
14 able to carry out this section, the Secretary shall
15 carry out a program of awarding grants, on a com-
16 petitive basis, to eligible entities to enable the eligi-
17 ble entities to develop, carry out, and evaluate train-
18 ing programs for STEM education in elementary
19 schools, middle schools, and secondary schools.

20 “(2) PROPORTIONALITY.—To the extent prac-
21 ticable, the Secretary shall, in awarding grants
22 under this section, ensure an equitable distribution
23 between eligible entities serving urban areas and eli-
24 gible entities serving rural areas.

1 “(d) APPLICATION.—An eligible entity desiring a
2 grant under this section shall submit an application to the
3 Secretary at such time, in such manner, and containing
4 such information as the Secretary may require. Such ap-
5 plication shall include—

6 “(1) a description of how the eligible entity will
7 monitor and evaluate the effectiveness of the train-
8 ing program, including how the eligible entity plans
9 to measure the impact of the training on teachers
10 who attended the training after the teachers return
11 to the classroom; and

12 “(2) any other information the Secretary deter-
13 mines appropriate.

14 “(e) USE OF FUNDS.—An eligible entity receiving a
15 grant under this section shall use grant funds to carry
16 out a training program, using best practice models and
17 through summer institutes or other professional develop-
18 ment enrichment programs, that provides professional de-
19 velopment regarding STEM education to STEM teachers
20 (including STEM teachers who are master teachers or
21 have otherwise demonstrated mastery of STEM teaching)
22 and administrators who are currently employed as teach-
23 ers and administrators, respectively, as of the time of the
24 program.

25 “(f) REPORTS.—

1 “(1) REPORTS TO THE SECRETARY.—An eligi-
2 ble entity receiving a grant under this section shall
3 submit to the Secretary an annual report that de-
4 scribes the progress made on the grant and includes
5 the results from the evaluation described in the ap-
6 plication under subsection (d).

7 “(2) REPORTS TO CONGRESS.—Not later than
8 3 years after the date of enactment of this part, and
9 every 3 years thereafter, the Secretary shall submit
10 a report to Congress regarding the program sup-
11 ported under this section.

12 **“SEC. 2504. NATIONAL PANEL.**

13 “(a) IN GENERAL.—The Secretary shall establish a
14 national panel to review, evaluate, and identify—

15 “(1) rigorous kindergarten through grade 12
16 STEM curricula models, including computer or web-
17 based simulation education programs and kinesthetic
18 learning; and

19 “(2) best practices with respect to STEM cur-
20 ricula.

21 “(b) MEMBERS.—The Secretary shall determine the
22 membership of the national panel described in subsection
23 (a), which shall be comprised of individuals who have the
24 wisdom and experience to identify and recommend the
25 most effective STEM curricula models, such as—

1 “(1) representatives of technology industries
2 and business;

3 “(2) teachers and school administrators;

4 “(3) representatives of nonprofit organizations
5 and community organizations;

6 “(4) faculty members of institutions of higher
7 education;

8 “(5) research specialists and curricula special-
9 ists;

10 “(6) at least 1 rural education expert; and

11 “(7) other individuals, as determined appro-
12 priate by the Secretary.

13 “(c) REPORTS.—The panel shall prepare reports and
14 recommendations regarding the panel’s findings as re-
15 quested by the Secretary.

16 **“SEC. 2505. AUTHORIZATION OF APPROPRIATIONS.**

17 “‘There is authorized to be appropriated to carry out
18 this part such sums as may be necessary for fiscal year
19 2011 and each of the 5 succeeding fiscal years.’”.

20 (b) TABLE OF CONTENTS.—The table of contents in
21 section 2 of the Elementary and Secondary Education Act
22 of 1965 is amended by inserting after the item relating
23 to section 2441 the following:

 “PART E—STEM EDUCATION PLANNING AND TRAINING

 “Sec. 2501. Definitions.

 “Sec. 2502. Planning grants.

 “Sec. 2503. Training program grants.

“Sec. 2504. National panel.

“Sec. 2505. Authorization of appropriations.”.

