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(Original Signature of Member)

117TH CONGRESS  
1ST SESSION

**H. R.** \_\_\_\_\_

To encourage and promote further research into informal learning opportunities to engage youth in STEM fields, and for other purposes.

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IN THE HOUSE OF REPRESENTATIVES

Mrs. KIM of California introduced the following bill; which was referred to the Committee on \_\_\_\_\_

\_\_\_\_\_  
**A BILL**

To encourage and promote further research into informal learning opportunities to engage youth in STEM fields, 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 “Innovations in Infor-  
5 mal STEM Learning Act”.

6 **SEC. 2. DEFINITIONS.**

7 Section 2 of the STEM Education Act of 2015 is  
8 amended as follows:

1           (1) In the header, by striking “**DEFINITION**  
2           **OF STEM EDUCATION**” and inserting “**DEFINI-**  
3           **TIONS**”.

4           (2) By striking “For purposes of” and inserting  
5           “(a) IN GENERAL.—For purposes of”.

6           (3) By inserting at the end the following:

7           “(b) OTHER DEFINITIONS.—For the purposes of this  
8 Act, the following:

9           “(1) INSTITUTION OF HIGHER EDUCATION.—  
10          The term ‘institution of higher education’ has the  
11          meaning given the term in section 101(a) of the  
12          Higher Education Act of 1965 (20 U.S.C. 1001(a)).

13          “(2) NON-PROFIT ORGANIZATION.—The term  
14          ‘non-profit organization’ means an organization  
15          which is described in section 501(c)(3) of the Inter-  
16          nal Revenue Code of 1986 and exempt from tax  
17          under section 501(a) of such code.

18          “(3) PREK-8.—The term ‘preK-8’ means pre-  
19          kindergarten through grade 8.”.

20 **SEC. 3. SUPPORTING PREK-8 INFORMAL STEM EDUCATION**  
21 **OPPORTUNITIES.**

22          Section 3 of the STEM Education Act of 2015 (42  
23 u.s.c. 1862q) is amended by adding at the end the fol-  
24 lowing:

1           “(c) PREK–8 INFORMAL STEM EDUCATION PRO-  
2 GRAM.—

3           “(1) IN GENERAL.—The Director of the Na-  
4 tional Science Foundation shall provide grants to in-  
5 stitutions of higher education or a non-profit organi-  
6 zations (or a consortia of such intuitions or organi-  
7 zation) on a merit-reviewed, competitive basis for re-  
8 search on programming that engages students in  
9 grades preK-8, including underrepresented and rural  
10 students, in STEM education in order to prepare  
11 such students to pursue degrees or careers in STEM  
12 subjects.

13           “(2) USE OF FUNDS.—

14           “(A) IN GENERAL.—Grants awarded under  
15 this section shall be used toward research to ad-  
16 vance the engagement of students, including  
17 underrepresented and rural students, in grades  
18 preK-8 in STEM through providing before-  
19 school, after-school, out-of-school, or summer  
20 activities, including in single-gender environ-  
21 ments or programming, that are designed to en-  
22 courage interest, engagement, and skills devel-  
23 opment for students in STEM.

1           “(B) PERMITTED ACTIVITIES.—The activi-  
2           ties described in subparagraph (A) may in-  
3           clude—

4                   “(i) the provision of programming de-  
5                   scribed in such subparagraph for the pur-  
6                   pose of research described in such subpara-  
7                   graph;

8                   “(ii) the use of a variety of engage-  
9                   ment methods, including cooperative and  
10                  hands-on learning;

11                  “(iii) exposure of students to role  
12                  models in the fields of STEM and near-  
13                  peer mentors;

14                  “(iv) training of informal learning  
15                  educators, youth-serving professionals, and  
16                  volunteers who lead informal STEM pro-  
17                  grams in using evidence-based methods  
18                  consistent with the target student popu-  
19                  lation being served;

20                  “(v) education of students on the rel-  
21                  evance and significance of STEM careers,  
22                  provision of academic advice and assist-  
23                  ance, and activities designed to help stu-  
24                  dents make real-world connections to  
25                  STEM content;

1           “(vi) the attendance of students at  
2 events, competitions, and academic pro-  
3 grams to provide content expertise and en-  
4 courage career exposure in STEM;

5           “(vii) activities designed to engage  
6 parents and families of students in grades  
7 preK-8 in STEM, which may include the  
8 purchase of parts and supplies needed to  
9 participate in such competitions;

10           “(viii) innovative strategies to engage  
11 students, such as using leadership skills  
12 and outcome measures to impart youth  
13 with the confidence to pursue STEM  
14 coursework and academic study;

15           “(ix) coordination with STEM-rich  
16 environments, including other nonprofit,  
17 nongovernmental organizations, out-of-  
18 classroom settings, single-gender environ-  
19 ments, institutions of higher education, vo-  
20 cational facilities, corporations, museums,  
21 or science centers; and

22           “(x) the acquisition of instructional  
23 materials or technology-based tools to con-  
24 duct applicable grant activity.

1           “(3) APPLICATION.—An applicant seeking  
2 funding under this section shall submit an applica-  
3 tion at such time, in such manner, and containing  
4 such information as may be required. Applications  
5 that include or partner with a nonprofit, nongovern-  
6 mental organization that has extensive experience  
7 and expertise in increasing the participation of stu-  
8 dents in preK-8 in STEM are encouraged. The ap-  
9 plication may include the following:

10                   “(A) A description of the target audience  
11 to be served by the research activity or activi-  
12 ties for which such funding is sought.

13                   “(B) A description of the process for re-  
14 cruitment and selection of students to partici-  
15 pate in such activities.

16                   “(C) A description of how such activity or  
17 activities may inform programming that en-  
18 gages students in grades preK-8 in STEM.

19                   “(D) A description of how such activity or  
20 activities may inform programming that pro-  
21 motes student academic achievement in STEM.

22                   “(E) An evaluation plan that includes, at  
23 a minimum, the use of outcome-oriented meas-  
24 ures to determine the impact and efficacy of  
25 programming being researched.

1           “(4) EVALUATIONS.—Each recipient of a grant  
2           under this section shall provide, at the conclusion of  
3           every year during which the grant funds are re-  
4           ceived, an evaluation in a form prescribed by the Di-  
5           rector.

6           “(5) ACCOUNTABILITY AND DISSEMINATION.—

7                   “(A) EVALUATION REQUIRED.—The Direc-  
8                   tor shall evaluate the activities established  
9                   under this section. Such evaluation shall—

10                           “(i) use a common set of benchmarks  
11                           and tools to assess the results of research  
12                           conducted under such grants; and

13                                   “(ii) to the extent practicable, inte-  
14                                   grate the findings of the research resulting  
15                                   from the activity or activities funded  
16                                   through the grant with the current re-  
17                                   search on serving students with respect to  
18                                   the pursuit of degrees or careers in STEM,  
19                                   including underrepresented and rural stu-  
20                                   dents, in grades preK-8.

21                           “(B) REPORT ON EVALUATIONS.—Not  
22                           later than 180 days after the completion of the  
23                           evaluation under subparagraph (A), the Direc-  
24                           tor shall submit to Congress and make widely  
25                           available to the public a report that includes—

1 “(i) the results of the evaluation; and

2 “(ii) any recommendations for admin-  
3 istrative and legislative action that could  
4 optimize the effectiveness of the program  
5 under this section.

6 “(6) COORDINATION.—In carrying out this sec-  
7 tion, the Director shall, for purposes of enhancing  
8 program effectiveness and avoiding duplication of ac-  
9 tivities, consult, cooperate, and coordinate with the  
10 programs and policies of other relevant Federal  
11 agencies.”.

12 **SEC. 4. SENSE OF CONGRESS REGARDING INDUSTRY IN-**  
13 **VESTMENT IN STEM EDUCATION.**

14 It is the sense of Congress that—

15 (1) In order to bolster the STEM workforce  
16 pipeline, many industry sectors are becoming in-  
17 volved in preK-8 initiatives to educate students on  
18 the relevance and significance of STEM careers and  
19 expose students to role models in the fields of STEM  
20 and near-peer mentors to foster their interest in  
21 STEM;

22 (2) Partnerships with education providers,  
23 STEM focused competitions, and academic pro-  
24 grams, have become important aspects of private  
25 sector efforts to strengthen the STEM workforce;



1           (3) Understanding the work that private sector  
2           organizations are undertaking in STEM fields  
3           should inform the Federal Government's role in  
4           STEM education; and

5           (4) Successful private sector STEM initiatives,  
6           as reflected by measurements of relevant outcomes,  
7           should be encouraged and support by the National  
8           Science Foundation.