

SB0179S01 compared with SB0179

~~{deleted text}~~ shows text that was in SB0179 but was deleted in SB0179S01.

inserted text shows text that was not in SB0179 but was inserted into SB0179S01.

DISCLAIMER: This document is provided to assist you in your comparison of the two bills. Sometimes this automated comparison will not be completely accurate. Therefore, you need to read the actual bill. This automatically generated document could experience abnormalities caused by: limitations of the compare program; bad input data; the timing of the compare; and other potential causes.

Representative Merlynn T. Newbold proposes the following substitute bill:

MATH EDUCATION INITIATIVE

2011 GENERAL SESSION

STATE OF UTAH

Chief Sponsor: Howard A. Stephenson

House Sponsor: ~~{~~ Merlynn T. Newbold

LONG TITLE

General Description:

This bill creates a program that awards grants for the improvement of math education.

Highlighted Provisions:

This bill:

- ▶ requires the Legislature to annually appropriate money to the State Board of Education for the Math Education Initiative, subject to future budget constraints;
- ▶ directs the State Board of Education to use money appropriated for the Math Education Initiative to award grants to ~~{~~

~~school districts and charter schools to help pay for costs to adopt Singapore math;~~

~~} schools for honors mathematics courses ~~{~~ and~~

~~institutions of higher education or nonprofit education organizations for math~~

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~~teacher training programs;~~

~~→ imposes requirements for a school district or charter school that receives a grant to provide instruction in Singapore math};~~

- ▶ imposes requirements for honors mathematics courses and teachers; and
- ▶ directs the State Board of Education to ~~{~~

~~• appoint an advisory committee to make recommendations regarding the implementation of Singapore math;~~

~~• contract with an independent, qualified evaluator, selected through a request for proposals process, to evaluate the effect of instruction in Singapore math on student achievement; and~~

~~• make rules that establish criteria for awarding grants for math teacher training programs} hire a contractor to develop a bank of problems for honors mathematics courses.~~

Money Appropriated in this Bill:

This bill appropriates:

- ▶ to the State Board of Education for fiscal year ~~{2011-12}~~ 2011-12, as an ongoing appropriation: ~~{~~
 - from the Education Fund, ~~{\$1,813}~~ \$63,000.

Other Special Clauses:

This bill provides an effective date.

Utah Code Sections Affected:

~~{AMENDS:~~

~~631-2-253, as last amended by Laws of Utah 2010, Chapter 11~~

~~{ENACTS:~~

~~53A-13-401, Utah Code Annotated 1953~~

~~53A-13-402, Utah Code Annotated 1953~~

~~53A-13-403, Utah Code Annotated 1953~~

~~53A-13-404, Utah Code Annotated 1953~~

~~53A-13-405, Utah Code Annotated 1953~~

~~53A-13-406, Utah Code Annotated 1953~~

~~53A-13-407, Utah Code Annotated 1953~~

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~~{ 53A-13-408, Utah Code Annotated 1953~~

~~53A-13-409, Utah Code Annotated 1953~~

~~53A-13-410, Utah Code Annotated 1953~~

~~53A-13-411, Utah Code Annotated 1953~~

~~53A-13-412, Utah Code Annotated 1953~~

Be it enacted by the Legislature of the state of Utah:

Section 1. Section **53A-13-401** is enacted to read:

Part 4. Math Education Initiative

53A-13-401. Definitions.

As used in this part:

(1) "Board" means the State Board of Education.

(2) "Honors mathematics" includes honors algebra I, honors algebra II, and honors geometry.

~~{ (3) "Singapore math" means the math curriculum created by the education ministry in Singapore for use in Singapore schools and encompasses the textbooks, workbooks, and other materials based on the math curriculum.~~

‡ Section 2. Section **53A-13-402** is enacted to read:

53A-13-402. Purposes of the Math Education Initiative~~{ --Public-private partnerships encouraged}~~.

~~{(1)}~~ The Math Education Initiative is created to:

~~{a}~~ 1) make Utah the premier state for math education and a recognized source of skilled scientists and engineers;

~~{b}~~ 2) meet the demand of Utah employers for workers with high math skills; and

~~{c}~~ 3) entice companies that require a highly skilled technical workforce to locate in the state.

~~{ (2) The formation of public-private partnerships is encouraged to advance the purposes of the Math Education Initiative.~~

‡ Section 3. Section **53A-13-403** is enacted to read:

53A-13-403. Annual appropriation for Math Education Initiative -- Use of Math Education Initiative money.

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- (1) Subject to future budget constraints, the Legislature shall~~;~~
~~(a) annually appropriate money to the board for the Math Education Initiative~~~~;~~ and
~~(b) increase appropriations for the Math Education Initiative as the state's capacity to provide professional development to teachers in Singapore math expands~~.
- (2) From money appropriated for the Math Education Initiative, the board shall:
~~(a) award grants to~~
~~(i) school districts and charter schools to help pay for a school district's or charter school's costs of adopting Singapore math as provided by Section 53A-13-404;~~
~~(ii) schools to pay for stipends for teachers who teach honors mathematics courses;~~
and
~~(iii) institutions of higher education or nonprofit educational organizations for math teacher training programs as provided in Section 53A-13-412;~~
~~(b) contract with an independent, qualified evaluator, selected through a request for proposals process, to evaluate the effect of instruction in Singapore math on student achievement; and~~
~~(c) contract with a person, selected through a request for proposals process, to develop a bank of problems that may be used to assess students' understanding and proficiency in honors mathematics courses.~~

Section 4. Section **53A-13-404** is enacted to read:

53A-13-404. Grants ~~{to school districts and charter schools that adopt Singapore math:~~

~~(1) Through a competitive proposal process, the board may award grants of up to \$150 per student for the portion of a school district's or charter school's kindergarten through grade eight enrollment that receives instruction in Singapore math for the first time:~~

~~(2) A school district or charter school may use the grant money to pay for Singapore math}~~ **for honors mathematics courses.**

(1) Subject to funding for honors mathematics courses, the board shall make grants to schools to pay for stipends in the amount of \$1,600 per year for teachers of honors mathematics courses.

(2) The board shall establish procedures for applying for and awarding the grants

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described in Subsection (1).

(3) A teacher who receives a stipend to teach an honors mathematics course shall agree to:

(a) develop the skills and knowledge necessary to teach the curriculum and learning objectives of an honors mathematics course as described in Subsection 53A-15-405;

(b) select a textbook or instructional ~~materials or professional development in teaching Singapore math~~ material in accordance with the requirements of Section 53A-15-406; and

(c) administer end-of-semester tests in accordance with Section 53A-15-407.

(4) If funding for honors mathematics courses is not sufficient to provide the \$1,600 stipend for teachers of honors mathematics courses who had received the stipend in the prior school year, the board may reduce the amount of the stipend for teachers of honors mathematics courses.

Section 5. Section 53A-13-405 is enacted to read:

~~53A-13-405. Requirements of school districts and charter schools that receive a grant for Singapore math.~~

~~(1) A school district or charter school that receives a grant to provide instruction in Singapore math:~~

~~(a) (i) shall adopt Singapore math for grades kindergarten through six, except as provided in Subsection (2); and~~

~~(ii) may adopt Singapore math for grades seven and eight;~~

~~(b) shall administer math achievement tests at the beginning and the end of the school year; and~~

~~(c) shall provide professional development to teachers in Singapore math.~~

~~(2) (a) A school district or charter school may phase in the adoption of Singapore math in grades kindergarten through eight over two or more years.~~

~~(b) A school district may phase in the adoption of Singapore math throughout schools in the school district over two or more years.~~ Honors algebra and honors geometry -- Curriculum and learning objectives.

(1) (a) Honors algebra encompasses, but is not limited to, the requirements of the algebra core curriculum.

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(b) Honors algebra students shall:

(i) have the opportunity to derive formulas or prove algebra theorems before making use of them to solve problems; and

(ii) learn to solve a wide variety of word problems ranging from introductory to challenging.

(c) (i) Honors algebra I shall be a one-year course, taught during a single year.

(ii) Honors algebra II shall be a one-year course, taught during a single year.

(2) (a) Honors geometry encompasses, but is not limited to, the requirements of the geometry core curriculum.

(b) The focus of honors geometry shall be doing proofs.

(c) Honors geometry students shall learn how to do proofs ranging from easy to challenging.

(3) Honors geometry shall be a one year course, taught during a single year.

Section 6. Section 53A-13-406 is enacted to read:

53A-13-406. ~~{ Advisory committee on Singapore math.~~

~~(1) The board shall appoint an advisory committee to:~~

~~(a) evaluate Singapore math} **Honors algebra and honors geometry -- Textbooks.**~~

(1) An honors algebra textbook shall have many introductory, midlevel, and challenging problems, including word problems.

(2) The focus and the majority of problems in an honors geometry textbook shall be proofs.

(3) An honors mathematics teacher:

(a) may select a textbook or instructional ~~{materials and make recommendations to school districts and charter schools for the adoption of Singapore math}~~ material that in the teacher's judgement meets the requirements of Subsection (1) or (2) and is aligned with the curriculum and learning objectives described in Section 53A-15-405; and

(b) is not required to select a textbook or instructional ~~{materials.~~

~~(b) make recommendations to school districts and charter schools on professional development in Singapore math, including:~~

~~(i) the qualifications of individuals who provide professional development in Singapore math; and~~

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~~(ii) the extent and content of initial and continuing professional development in Singapore math; and~~

~~(c) review grant proposals submitted by school districts and charter schools to adopt Singapore math and make recommendations to the board on awarding grants.~~

~~(2) In reviewing and making recommendations to the board on grant proposals, the advisory council shall consider:~~

~~(a) the extent and content of professional development for teachers of Singapore math;~~

~~(b) the quality of instructional materials;~~

~~(c) the grade seven and eight math curricula; and~~

~~(d) elementary and secondary math class schedules, including the number of days and hours per week each class is scheduled.~~

~~(3) The advisory committee appointed under Subsection (1) shall consist of five members of whom:~~

~~(a) three members shall be mathematicians who serve or have served as a math professor at a higher education institution in Utah that offers graduate level degrees in math; and~~

~~(b) two additional members shall have a high level of expertise in mathematics.~~

~~Section 7. Section 53A-13-407 is enacted to read:~~

~~**53A-13-407. Annual report in Singapore math.**~~

~~(1) Through 2015, the board shall make a report to the Education Interim Committee after each year of instruction in Singapore math in Utah schools.~~

~~(2) The report shall include an evaluation of the effect of instruction in Singapore math on student achievement.~~

~~Section 8. Section 53A-13-408 is enacted to read:~~

~~**53A-13-408. Grants for honors mathematics courses.**~~

~~(1) Subject to funding for honors mathematics courses, the board shall make grants to schools to pay for stipends in the amount of \$1,600 per year for teachers of honors mathematics courses.~~

~~(2) The board shall establish procedures for applying for and awarding the grants described in Subsection (1):~~

~~(3) A teacher who receives a stipend to teach an honors mathematics course shall agree~~

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to:

~~— (a) develop the skills and knowledge necessary to teach the curriculum and learning objectives of an honors mathematics course as described in Subsection 53A-15-409;~~

~~— (b) select a textbook or instructional material in accordance with the requirements of Section 53A-15-410; and~~

~~— (c) administer end-of-semester tests in accordance with Section 53A-15-411.~~

~~— (4) If funding for honors mathematics courses is not sufficient to provide the \$1,600 stipend for teachers of honors mathematics courses who had received the stipend in the prior school year, the board may reduce the amount of the stipend for teachers of honors mathematics courses.~~

~~— Section 9. Section 53A-13-409 is enacted to read:~~

~~— **53A-13-409. Honors algebra and honors geometry -- Curriculum and learning objectives.**~~

~~— (1) (a) Honors algebra encompasses, but is not limited to, the requirements of the algebra core curriculum.~~

~~— (b) Honors algebra students shall:~~

~~— (i) have the opportunity to derive or prove formulas before using the formulas to solve problems; and~~

~~— (ii) learn to solve challenging word problems.~~

~~— (2) (a) Honors geometry:~~

~~— (i) encompasses, but is not limited to, the requirements of the geometry core curriculum; and~~

~~— (ii) is proof-based.~~

~~— (b) Honors geometry students shall learn how to:~~

~~— (i) verify or derive math facts and prove theorems, ranging from easy to challenging; and~~

~~— (ii) solve challenging word problems.~~

~~— (3) Honors geometry shall be taught in a single year and may not be combined with instruction in algebra.~~

~~— Section 10. Section 53A-13-410 is enacted to read:~~

~~— **53A-13-410. Honors algebra and honors geometry -- Textbooks.**~~

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- ~~(1) An honors algebra textbook shall have many introductory, midlevel, and challenging word problems.~~
- ~~(2) The focus and the majority of problems in an honors geometry textbook shall be proofs.~~
- ~~(3) An honors mathematics teacher:~~
- ~~(a) may select a textbook or instructional material that in the teacher's judgement meets the requirements of Subsection (1) or (2) and is aligned with the curriculum and learning objectives described in Section 53A-15-409; and~~
- ~~(b) is not required to select a textbook or instructional material recommended by the State Instructional Materials Commission.~~
- ~~(4) At the request of an honors mathematics} material recommended by the State Instructional Materials Commission.~~

(4) At the request of an honors mathematics teacher, the State Board of Education shall attempt to acquire the permission necessary to reproduce, either online or in print, an out-of-print textbook.

Section ~~{11}~~7. Section ~~{53A-13-411}~~53A-13-407 is enacted to read:

53A-13-411}53A-13-407. Honors algebra and honors geometry -- Online bank of problems -- Tests.

(1) The State Board of Education shall hire a contractor, selected through a request for proposals process, to develop a bank of problems for honors mathematics courses that are aligned with the curriculum and learning objections described in Section ~~{53A-15-409}~~53A-15-405.

(2) To qualify for a contract to develop a bank of problems for honors mathematics courses, an individual responsible for developing the problems must have a doctorate in mathematics.

(3) A contractor who develops a bank of problems for honors mathematics courses shall take and consider public comment on the bank of problems.

(4) (a) The bank of problems shall include 40 or more introductory problems, 40 or more midlevel problems, and 40 more challenging problems for each semester of an honors mathematics course.

(b) At least 40% of the problems for honors algebra courses shall be word problems.

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(5) From the bank of problems developed under this section, an honors mathematics teacher shall develop tests that shall be administered at the end of each semester of instruction.

~~(b) An end-of-semester test for an honors mathematics course shall include:~~

~~(i) 40 or more introductory problems;~~

~~(ii) 40 or more midlevel problems; and~~

~~(iii) 40 or more challenging problems.~~

~~(c) For an honors algebra end-of-semester test, approximately half the problems described in Subsection (4)(b) shall be word problems.~~

~~(5)6) The State Board of Education shall make available online the entire bank of problems developed under this section so that teachers and students may have a better understanding of the learning objectives for honors mathematics courses.~~

~~Section 12. Section 53A-13-412 is enacted to read:~~

~~53A-13-412. Grants for math teacher training programs.~~

~~(1) The board may award grants to an institution of higher education or a nonprofit educational organization for programs that provide training leading to a secondary education license with an endorsement in mathematics for an individual who:~~

~~(a) is not a teacher in a public or private school;~~

~~(b) does not have a teaching license;~~

~~(c) has a bachelor's degree or higher; and~~

~~(d) demonstrates a high level of mathematics competency by:~~

~~(i) successfully completing substantial course work in mathematics; and~~

~~(ii) passing a mathematics content exam.~~

~~(2) (a) The board shall make rules in accordance with Title 63G, Chapter 3, Utah Administrative Rulemaking Act, that establish criteria for awarding grants under this section.~~

~~(b) In awarding grants, the board shall consider the amount or percent of matching funds provided by the grant recipient.~~

~~Section 13. Section 63I-2-253 is amended to read:~~

~~63I-2-253. Repeal dates -- Titles 53, 53A, and 53B:~~

~~(1) Section 53A-1-403.5 is repealed July 1, 2012.~~

~~(2) Subsection 53A-1-603(5) is repealed July 1, 2015.~~

~~(3) Title 53A, Chapter 1a, Part 10, UPSTART, is repealed July 1, 2014.~~

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~~———— (4) Subsection 53A-13-110(4) is repealed July 1, 2013.~~

~~———— (5) Section 53A-13-407 is repealed July 1, 2016.~~

~~———— [(5)] (6) Section 53A-17a-152 is repealed July 1, 2010.~~

~~———— [(6)] (7) Section 53A-17a-162 is repealed July 1, 2012.~~

‡ Section ~~{14}~~ 8. **Appropriation.**

Under the terms and conditions of Title 63J, Chapter 1, Budgetary Procedures Act, the following sums of money are appropriated from resources not otherwise appropriated out of the funds or accounts indicated for the fiscal year beginning July 1, 2011 and ending June 30, 2012. These are additions to amounts previously appropriated for fiscal year 2011-12.

To State Board of Education - ~~Utah State Office of Education - Initiative Programs~~

From Education Fund

~~{1,813}~~ \$63,000

Schedule of Programs:

{Singapore math}	<u>\$1,000,000</u>	
Math teacher training	<u>\$750,000</u>	
Honors mathematics}	<u>Contracts and Grants</u>	<u>\$63,000</u>

It is the intent of the Legislature that up to \$15,000 of the appropriation for the honors mathematics program may be used to pay a contractor to develop a bank of problems for honors mathematics courses.

Section ~~{15}~~ 9. **Effective date.**

(1) Except as provided in Subsection (2), if approved by two-thirds of all the members elected to each house, this bill takes effect upon approval by the governor, or the day following the constitutional time limit of Utah Constitution Article VII, Section 8, without the governor's signature, or in the case of a veto override.

(2) Uncodified Section ~~{14}~~ 8, Appropriation, takes effect on July 1, 2011.

‡

Legislative Review Note

~~———— as of 2-11-11 10:32 AM~~

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~~Office of Legislative Research and General Counsel~~