

**Senator Stephen H. Urquhart** proposes the following substitute bill:

**SCIENCE, TECHNOLOGY, ENGINEERING, AND  
MATHEMATICS ACTION CENTER**

2013 GENERAL SESSION

STATE OF UTAH

**Chief Sponsor: Val L. Peterson**

Senate Sponsor: Stephen H. Urquhart

7	Cosponsors:	Craig Hall	Jeremy A. Peterson
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22	Richard A. Greenwood	Lee B. Perry	Brad R. Wilson

23 \_\_\_\_\_  
24 **LONG TITLE**



25 **General Description:**

26 This bill creates educational programs for science, technology, engineering, and  
27 mathematics (STEM).

28 **Highlighted Provisions:**

29 This bill:

30 ▶ creates a Science, Technology, Engineering, and Mathematics (STEM) Action  
31 Center Board;

32 ▶ requires the STEM Action Center Board to:

- 33 • establish a STEM Action Center; and
- 34 • appoint an executive director to oversee administration of the STEM Action

35 Center;

36 ▶ requires the Governor's Office of Economic Development to staff the STEM Action  
37 Center Board and the STEM Action Center;

38 ▶ requires the STEM Action Center Board to select providers, through a request for  
39 proposals process, to provide education related instructional technology;

40 ▶ requires the STEM Action Center Board to work with private industry to obtain  
41 private funding and support for the STEM Action Center;

42 ▶ as funding allows, requires the STEM Action Center Board to perform certain  
43 duties related to the STEM Action Center;

44 ▶ requires the executive director to track student achievement and progress in STEM  
45 areas;

46 ▶ requires the STEM Action Center Board to report to the Education Interim  
47 Committee, the Public Education Appropriations Subcommittee, and the State  
48 Board of Education once each year;

49 ▶ creates the STEM education related technology program;

50 ▶ allows the State Board of Education staff and STEM Action Center staff to award  
51 STEM education related instructional technology and related professional  
52 development to school districts and charter schools for instructional technology for  
53 STEM related education if certain conditions are met;

54 ▶ provides that the acquisition of certain education related instructional technology  
55 may be acquired through a direct award or sole source procurement process for

56 purposes of conducting a pilot; and  
57       ▶ eliminates certain duties of the State Advisory Council on Science and Technology  
58 related to science and technology fairs and camps.

59 **Money Appropriated in this Bill:**

60       This bill appropriates in fiscal year 2014:  
61       ▶ to Governor's Office of Economic Development - STEM Action Center, as an  
62 ongoing appropriation:  
63           • from the General Fund, \$1,500,000; and  
64       ▶ to Governor's Office of Economic Development - STEM Action Center, as a  
65 one-time appropriation:  
66           • from the General Fund, \$8,500,000.

67 **Other Special Clauses:**

68       This bill provides an effective date.

69 **Utah Code Sections Affected:**

70 AMENDS:

71       **63M-1-608**, as renumbered and amended by Laws of Utah 2008, Chapter 382

72 ENACTS:

73       **63M-1-3201**, Utah Code Annotated 1953  
74       **63M-1-3202**, Utah Code Annotated 1953  
75       **63M-1-3203**, Utah Code Annotated 1953  
76       **63M-1-3204**, Utah Code Annotated 1953  
77       **63M-1-3205**, Utah Code Annotated 1953  
78       **63M-1-3206**, Utah Code Annotated 1953  
79       **63M-1-3207**, Utah Code Annotated 1953

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

82       Section 1. Section **63M-1-608** is amended to read:

83       **63M-1-608. Science education program.**

84       (1) (a) There is established an informal science and technology education program  
85 within the Governor's Office of Economic Development.

86       (b) The state science advisor shall act as the executive director of the program.

87 (c) The State Advisory Council on Science and Technology shall advise the program,  
88 including:

89 (i) approving all money expended by the science and technology education program;

90 (ii) approving all operations of the program; and

91 (iii) making policies and procedures to govern the program.

92 (2) The program may:

93 (a) provide informal science and technology-based education to elementary and  
94 secondary students;

95 (b) expose public education students to college level science and technology  
96 disciplines; and

97 [~~(c) administer a science and technology camp program; and~~]

98 [~~(d)~~] (c) provide other informal promotion of science and technology education in

99 [this] the state[, including the direct sponsorship of science fairs and science olympiads].

100 [~~(3) The science and technology camp program described under Subsection (2)(c) shall~~  
101 ~~be:~~]

102 [~~(a) provided exclusively for elementary and secondary students and their teachers;~~]

103 [~~(b) established as a grant program for camp providers; and~~]

104 [~~(c) administered based upon annual requests for proposals, a documented review~~  
105 ~~process, and grant awards.~~]

106 Section 2. Section **63M-1-3201** is enacted to read:

107 **Part 32. Science, Technology, Engineering, and Mathematics Action Center**  
108 **63M-1-3201. Definitions.**

109 As used in this part:

110 (1) "Board" means the STEM Action Center Board created in Section 63M-1-3202.

111 (2) "Educator" has the meaning defined in Section 53A-6-103.

112 (3) "Office" means the Governor's Office of Economic Development.

113 (4) "Provider" means a provider, selected by staff of the board and staff of the Utah  
114 State Board of Education, on behalf of the board:

115 (a) through a request for proposals process; or

116 (b) through a direct award or sole source procurement process for a pilot described in  
117 Section 63M-1-3205.

- 118 (5) "STEM" means science, technology, engineering, and mathematics.  
119 (6) "STEM Action Center" means the center described in Section 63M-1-3204.  
120 Section 3. Section **63M-1-3202** is enacted to read:  
121 **63M-1-3202. STEM Action Center Board creation -- Membership.**  
122 (1) There is created the STEM Action Center Board within the office, composed of the  
123 following members:  
124 (a) four private sector members who represent business, appointed by the governor;  
125 (b) the state superintendent of public instruction or the state superintendent of public  
126 instruction's designee;  
127 (c) the commissioner of higher education or the commissioner of higher education's  
128 designee;  
129 (d) one member appointed by the governor;  
130 (e) a member of the State Board of Education, chosen by the chair of the State Board of  
131 Education; and  
132 (f) the executive director of the Governor's Office of Economic Development or the  
133 executive director of the Governor's Office of Economic Development's designee.  
134 (2) (a) Except as required by Subsection (2)(b), members appointed by the governor  
135 shall be appointed to four-year terms.  
136 (b) The length of terms of the members shall be staggered so that approximately half of  
137 the committee is appointed every two years.  
138 (c) The members may not serve more than two full consecutive terms except where the  
139 governor determines that an additional term is in the best interest of the state.  
140 (d) When a vacancy occurs in the membership for any reason, the replacement shall be  
141 appointed for the unexpired term.  
142 (3) Attendance of a simple majority of the members constitutes a quorum for the  
143 transaction of official committee business.  
144 (4) Formal action by the committee requires a majority vote of a quorum.  
145 (5) A member may not receive compensation or benefits for the member's service, but  
146 may receive per diem and travel expenses in accordance with:  
147 (a) Section 63A-3-106;  
148 (b) Section 63A-3-107; and

149 (c) rules made by the Division of Finance pursuant to Sections 63A-3-106 and  
150 63A-3-107.

151 (6) The governor shall select the chair of the board to serve a one-year term.

152 (7) The executive director of the Governor's Office of Economic Development or the  
153 executive director of the Governor's Office of Economic Development's designee shall serve as  
154 the vice chair of the board.

155 (8) The state science advisor described in Section 63M-1-606 and the office shall  
156 provide staff support to the board.

157 Section 4. Section **63M-1-3203** is enacted to read:

158 **63M-1-3203. STEM Action Center Board -- Duties.**

159 (1) The board shall:

160 (a) establish a STEM Action Center program to:

161 (i) coordinate STEM activities in the state among the following stakeholders:

162 (A) the State Board of Education;

163 (B) school districts and charter schools;

164 (C) the State Board of Regents;

165 (D) institutions of higher education;

166 (E) parents of home-schooled students; and

167 (F) other state agencies;

168 (ii) align public education STEM activities with higher education STEM activities; and

169 (iii) create and coordinate best practices among public education and higher education;

170 (b) select a physical location for the STEM Action Center;

171 (c) strategically engage industry and business entities to cooperate with the board:

172 (i) to support professional development and provide other assistance for educators and  
173 students; and

174 (ii) to provide private funding and support for the STEM Action Center;

175 (d) give direction to the STEM Action Center and the providers selected through a  
176 request for proposals process pursuant to this part; and

177 (e) work to meet the following expectations:

178 (i) that at least 50 educators are implementing best practice learning tools in  
179 classrooms per each product specialist or manager working with the STEM Action Center;

- 180 (ii) performance change in student achievement in each classroom working with a  
181 STEM Action Center product specialist or manager; and  
182 (iii) that students from at least 50 high schools participate in the STEM competitions,  
183 fairs, and camps described in Subsection 63M-1-3204(2)(d).  
184 (2) The board may:  
185 (a) enter into contracts for the purposes of this part;  
186 (b) apply for, receive, and disburse funds, contributions, or grants from any source for  
187 the purposes set forth in this part;  
188 (c) employ, compensate, and prescribe the duties and powers of individuals necessary  
189 to execute the duties and powers of the board;  
190 (d) prescribe the duties and powers of the STEM Action Center providers; and  
191 (e) in accordance with Title 63G, Chapter 3, Utah Administrative Rulemaking Act,  
192 make rules to administer this part.

193 Section 5. Section **63M-1-3204** is enacted to read:

194 **63M-1-3204. STEM Action Center Program.**

- 195 (1) As funding allows, the board shall:  
196 (a) establish a STEM Action Center;  
197 (b) appoint an executive director to oversee the administration of the STEM Action  
198 Center;  
199 (c) ensure that the STEM Action Center:  
200 (i) is accessible by the public; and  
201 (ii) includes the components described in Subsection (2);  
202 (d) work cooperatively with the State Board of Education to acquire technology and  
203 select schools as described in Sections 63M-1-3205 and 63M-1-3206; and  
204 (e) engage private entities to provide financial support or employee time for STEM  
205 activities in schools in addition to what is currently provided by private entities.  
206 (2) As funding allows, the executive director of the STEM Action Center shall:  
207 (a) support professional development for educators regarding education related  
208 instructional technology that supports STEM education;  
209 (b) ensure that the STEM Action Center acts as a research and development center for  
210 education related instructional technology acquired through a request for proposals process

211 described in Section 63M-1-3205;

212 (c) review and acquire education related technology for:

213 (i) educator professional development;

214 (ii) assessment, data collection, analysis, and reporting; and

215 (iii) public school instruction;

216 (d) facilitate participation in interscholastic STEM related competitions, fairs, and

217 camp;

218 (e) engage private industry in the development and maintenance of the STEM Action

219 Center;

220 (f) use resources to bring the latest STEM education learning tools into public

221 education classrooms;

222 (g) identify at least 10 best practice innovations used in Utah schools that have resulted

223 in at least 80% of students performing at grade level in STEM areas;

224 (h) identify best practices being used outside the state and implement selected practices

225 through a pilot program;

226 (i) identify:

227 (i) three learning tools for kindergarten through grade 6 identified as best practices; and

228 (ii) three learning tools per STEM subject for grades 7 through 12 identified as best

229 practices;

230 (j) provide a Utah best practices database, including best practices from public

231 education, higher education, the Utah Education Network, and other STEM related entities;

232 (k) keep track of the following items related to the best practices database described in

233 Subsection (2)(j):

234 (i) how the best practices database is being used; and

235 (ii) how many individuals are using the database, including the demographics of the

236 users, if available;

237 (l) join and participate in a national STEM network;

238 (m) identify performance changes linked to use of the best practices database described

239 in Subsection (2)(j);

240 (n) work cooperatively with the State Board of Education to designate schools as

241 STEM schools, where the schools have agreed to adopt a plan of STEM implementation in



242 alignment with criteria set by the State Board of Education and the board;

243 (o) support best methods of professional development, including methods of  
244 professional development that reduce cost and increase effectiveness, to help educators learn  
245 how to most effectively implement best practice learning tools in classrooms;

246 (p) recognize a high school's achievement in the STEM competitions, fairs, and camps  
247 described in Subsection (2)(d);

248 (q) send student results from STEM competitions, fairs, and camps described in  
249 Subsection (2)(d) to media and ask the media to report on them;

250 (r) develop and distribute STEM toolkits to parents of students being served by the  
251 STEM Action Center;

252 (s) support targeted professional development for improved instruction in STEM in  
253 grades 6, 7, and 8, including:

254 (i) improved instructional materials that are dynamic and engaging for students;

255 (ii) targeted instruction for students who traditionally avoid enrolling in STEM  
256 courses;

257 (iii) introduction of engaging engineering courses; and

258 (iv) introduction of other research-based methods that support student achievement in  
259 STEM areas; and

260 (t) ensure that an online college readiness assessment tool developed by the State  
261 Board of Regents be accessible by:

262 (i) public education students; and

263 (ii) higher education students.

264 (3) The board may prescribe other duties for the STEM Action Center in addition to  
265 the responsibilities described in this section.

266 (4) (a) The executive director shall track and compare the student performance of  
267 students participating in a STEM Action Center program to all other similarly situated students  
268 in the state, in the following STEM related activities, at the beginning and end of each year:

269 (i) public education high school graduation rates;

270 (ii) the number of students taking a remedial mathematics course at an institution of  
271 higher education described in Section 53B-1-102;

272 (iii) the number of students who graduate from a Utah public school and begin a

273 postsecondary education program; and

274 (iv) the number of students, as compared to all similarly situated students, who are  
275 performing at grade level in STEM classes.

276 (b) The State Board of Education and the State Board of Regents shall provide  
277 information to the board to assist the board in complying with the requirements of Subsection  
278 (4)(a) if allowed under federal law.

279 Section 6. Section **63M-1-3205** is enacted to read:

280 **63M-1-3205. Acquisition of STEM education related instructional technology**  
281 **program -- Research and development of education related instructional technology**  
282 **through a pilot program.**

283 (1) For purposes of this section:

284 (a) "Pilot" means a pilot of the program.

285 (b) "Program" means the STEM education related instructional technology program  
286 created in Subsection (2).

287 (2) (a) There is created the STEM education related instructional technology program  
288 to provide public schools the STEM education related instructional technology described in  
289 Subsection (3).

290 (b) On behalf of the board, the staff of the board and the staff of the State Board of  
291 Education shall collaborate and may select one or more providers, through a request for  
292 proposals process, to provide STEM education related instructional technology to school  
293 districts and charter schools.

294 (c) On behalf of the board, the staff of the board and the staff of the State Board of  
295 Education shall consider and may accept an offer from a provider in response to the request for  
296 proposals described in Subsection (2)(b) even if the provider did not participate in a pilot  
297 described in Subsection (4).

298 (3) The STEM education related instructional technology shall:

299 (a) support mathematics instruction for students in grades 6, 7, or 8; or

300 (b) support mathematics instruction for secondary students to prepare the secondary  
301 students for college mathematics courses.

302 (4) Before issuing a request for proposals described in Subsection (2), on behalf of the  
303 board, the staff of the board and the staff of the State Board of Education shall collaborate and

304 may:

305 (a) conduct a pilot of the program to test and select providers for the program;

306 (b) select at least two providers through a direct award or sole source procurement  
307 process for the purpose of conducting the pilot; and

308 (c) select schools to participate in the pilot.

309 Section 7. Section **63M-1-3206** is enacted to read:

310 **63M-1-3206. Grants to schools for STEM education instructional technology.**

311 (1) Subject to legislative appropriations, on behalf of the board, the staff of the board  
312 and the staff of the State Board of Education shall collaborate and shall:

313 (a) distribute STEM education related instructional technology described in Section  
314 63M-1-3205 to school districts and charter schools; and

315 (b) provide related professional development to the school districts and charter schools  
316 that receive STEM education related instructional technology as described in Subsection (1)(a).

317 (2) A school district or charter school may apply to the board, through a competitive  
318 process, to receive STEM education related instructional technology from the board.

319 (3) A school district or charter school that receives STEM education related  
320 instructional technology and professional development as described in this section shall  
321 provide the school district's or charter school's own computer hardware.

322 Section 8. Section **63M-1-3207** is enacted to read:

323 **63M-1-3207. Report to Legislature and the State Board of Education.**

324 (1) The board shall report the progress of the STEM Action Center, including the  
325 information described in Subsection (2), to the following groups once each year:

326 (a) the Education Interim Committee;

327 (b) the Public Education Appropriations Subcommittee; and

328 (c) the State Board of Education.

329 (2) The report described in Subsection (1) shall include information that demonstrates  
330 the effectiveness of the program, including:

331 (a) the number of educators receiving professional development;

332 (b) the number of students receiving services from the STEM Action Center;

333 (c) a list of the providers selected pursuant to this part;

334 (d) a report on the STEM Action Center's fulfilment of its duties described in

335 Subsection 63M-1-3204; and

336 (e) student performance of students participating in a STEM Action Center program as  
337 collected in Subsection 63M-1-3204(5).

338 **Section 9. Appropriation.**

339 Under the terms and conditions of Title 63J, Chapter 1, Budgetary Procedures Act, for  
340 the fiscal year beginning July 1, 2013, and ending June 30, 2014, the following sums of money  
341 are appropriated from resources not otherwise appropriated, or reduced from amounts  
342 previously appropriated, out of the funds or accounts indicated. These sums of money are in  
343 addition to any amounts previously appropriated for fiscal year 2014.

344 To Governor's Office of Economic Development - STEM Action Center

345 From General Fund \$1,500,000

346 From General Fund, one-time \$8,500,000

347 Schedule of Programs:

348 STEM Action Center \$10,000,000

349 The Legislature intends that:

350 (1) up to \$1,500,000 of the appropriation for STEM Action Center be used to establish  
351 a STEM Action Center as described in Section 63M-1-3204;

352 (2) at least \$5,000,000 of the appropriation for STEM Action Center be used for  
353 education related instructional technology, related professional development to support  
354 mathematics instruction for students in grades 6, 7, or 8 as described in Subsection  
355 63M-1-3205(3)(a) and Section 63M-1-3206, and related assessment, data collection, analysis,  
356 and reporting;

357 (3) at least \$3,500,000 of the appropriation for STEM Action Center be used for  
358 education related instructional technology and related professional development to support  
359 mathematics instruction for secondary students to prepare the secondary students for college  
360 mathematics courses as described in Subsection 63M-1-3205(3)(b) and Section 63M-1-3206,  
361 and related assessment, data collection, analysis, and reporting;

362 (4) that the appropriation described in Subsection (1):

363 (a) be ongoing; and

364 (b) not lapse at the close of fiscal year 2014; and

365 (5) that the appropriations described in Subsections (2) and (3):

366 (a) be one-time; and

367 (b) not lapse at the close of fiscal year 2014.

368 Section 10. **Effective date.**

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

373 (2) Uncodified Section 9, Appropriation, takes effect on July 1, 2013.