



# Southeast Region STEM Advisory Board

January 16, 2020 9:00 – 11:00 a.m.

**VIRTUAL LOGIN INFORMATION:**

You can join this event from a PC, Mac, iPad, iPhone or Android device:

Please click this URL to start or join. <https://uni.zoom.us/j/930774950>

Or, go to <https://uni.zoom.us/join> and enter meeting ID: 930 774 950

Join from dial-in phone line:

Dial: +1 646 558 8656 or +1 669 900 6833

Meeting ID: 930 774 950

Participant ID: Shown after joining the meeting

Thursday, January 16, 2020	
9:00 – 9:10 a.m.	<b>Welcome and introduction of new board members</b>
9:10 – 9:30 a.m.	<b>Iowa STEM Scale-Up application open January 21 – March 2</b> <ul style="list-style-type: none"> <li>• <a href="#">List</a> of programs (also listed below)</li> <li>• Recruitment strategies – we need connections to local districts, after school programs, daycares, church clubs, etc.</li> <li>• Review process will be <b>March 5 – 18</b> (Dan, Kate, Adriana, Beth)</li> <li>• Advisory board approval at March 25 board meeting</li> </ul>
9:30 – 9:45 a.m.	<b>STEM BEST Application</b> The <a href="#">STEM BEST application</a> will be open February 10 – May 15. Public or private K-12 schools can apply to receive up to \$25,000 to build school-business partnerships. The goal is to have at least 7 applications from the SE region. Potential program leads should be sent to Kristine.
9:45 – 10:05 a.m.	<b>STEM Day at the Capitol and Mega Board Meeting</b> These coupled events will be February 19 <sup>th</sup> in Des Moines. STEM Day at the Capitol is 10:00 – 1:00. The mega board meeting is 1:30 – 3:30. Board members will discuss the proposed agenda and provide feedback.
10:05 – 10:15 a.m.	<b>I.O.W.A. STEM Teacher Award Presentation</b> The Southeast awardee will be recognized January 23 from 2:45 – 3:30 at Pleasant Valley High School. Interested board members are encouraged to attend. Reviewers for this process will discuss highlights from the awardee’s application.
10:15 – 10:30 a.m.	<b>STEM Festival Exhibitors Needed</b> Each year, STEM Festivals draw thousands of children and their families. These events would not be possible without dedicated exhibitors willing to showcase STEM at their workplace. More info: <ul style="list-style-type: none"> <li>• <a href="#">Linn County STEM Festival</a> February 18 from 4:00 – 7:30 in Hiawatha</li> <li>• <a href="#">Southeast Iowa STEM Festival</a> February 22 from 10:00 – 1:30 in West Burlington</li> <li>• <a href="#">East Central Iowa</a> STEM Festival March 29 from 1:00 – 4:00 in Belle Plaine</li> </ul>

<b>10:30 – 10:40 a.m.</b>	<b>Iowa STEM Summit</b> The state STEM summit will be April 14 <sup>th</sup> in Des Moines. The STEM Council is looking for presenters that can address multiple goals for the state. The call for proposals can be found <a href="#">here</a> .
<b>10:40 – 10:45 a.m.</b>	<b>Mid-Year Regional Report</b> Kristine will send the report to Linda to collect feedback from board members. Expect the report by January 20.
<b>10:45 – 11:00 a.m.</b>	<b>Upcoming Events</b>
	<b>Next Meeting February 19 – STEM Day at the Capitol &amp; Mega Board Meeting</b> <ul style="list-style-type: none"> <li>• March 25 11:00 – 1:00 - Clinton</li> <li>• May 21 11:00 – 1:00 – MERGE Iowa City</li> </ul>

## 2020-21 STEM SCALE-UP PROGRAM MENU

Click on the program titles below for more information about each program.

- Download a printable version of all [2020-21 STEM Scale-Up Programs](#)
- A (\*) Indicates new programs offered for the 2020-21 academic year
- For more information about the application process, click [HERE](#)

### PROGRAMS

#### Available on the 2020-2021 STEM Scale-Up Program Menu:

##### **Bootstrap: Data Science**

**Description:** Students develop questions and learn how to analyze data critically to make meaning from the data. Flexibly designed for inclusion within courses such as math, computer science, business, and social studies.

**Grade Level:** 8-12

**For Settings:** In school

**Contact:** Jennifer Poole, Bootstrap, [jen@bootstrapworld.org](mailto:jen@bootstrapworld.org)

**For more information:** <https://www.bootstrapworld.org/materials/data-science/>

##### **Computer Science Discoveries**

**Description:** Inspire students as they build their own websites, apps, games and physical computing devices. This course takes a wide lens on computer science by covering topics such as programming, physical computing, HTML/CSS and data.

**Grade Level:** 6-10

**For Settings:** In school

**Contact:** Samantha Dahlby, NewBoCo, [samantha@newbo.co](mailto:samantha@newbo.co)

**For more information:** <https://newbo.co/code-org-partnership/>

##### **Computer Science Fundamentals**

**Description:** Foster equity and diversity in the classroom, breaking down barriers and stereotypes around computer science. This course is designed to be flexible for the classroom.

**Grade Level:** K-5

**For Settings:** In school and out of school

**Contact:** Samantha Dahlby, NewBoCo, [samantha@newbo.co](mailto:samantha@newbo.co)  
**For more information:** <https://newbo.co/code-org-partnership/>

### **Computer Science Principles**

**Description:** Introduce students to the foundational concepts of computer science and challenge them to explore how computing and technology can impact the world. This course is a rigorous, engaging and approachable exploration of the foundational ideas of computing.

**Grade Level:** 9-12

**For Settings:** In school

**Contact:** Samantha Dahlby, NewBoCo, [samantha@newbo.co](mailto:samantha@newbo.co)

**For more information:** <https://newbo.co/code-org-partnership/>

### **Curriculum for Agricultural Science Education (CASE) - Agricultural Power and Technology**

**Description:** Information not yet available - coming soon!

**Grade Level:** 9-12

**For Settings:** In school

**Contact:** Joshua Remington, Iowa FFA Foundation, [joshua.remington@iowaffafoundation.org](mailto:joshua.remington@iowaffafoundation.org)

**For more information:**

### **Desmos Middle School Math**

**Description:** A digital upgrade of the widely-adopted and highly-rated middle school math curriculum authored by Illustrative Mathematics. Desmos has added to IM's curriculum a) engaging game-like feedback, b) a powerful activity dashboard that helps teachers respond to student learning, c) and a continuous professional development model supporting teachers throughout the year.

**Grade Level:** 8

**For Settings:** In school

**Contact:** Dan Meyer, [dan@desmos.com](mailto:dan@desmos.com)

**For more information:** [bit.ly/desmos-iowa-sample](http://bit.ly/desmos-iowa-sample)

### **Differentiated Math Centers**

**Description:** An easy-to-manage resource that provides 3 levels of instruction tied to the same Standard of Learning. Each game or activity is standards-aligned, hands-on and complete with formative assessment writing prompt and skills practice.

**Grade Level:** K-5

**For Settings:** In school and out of school

**Contact:** Julie Law, [jlaw@hand2mind.com](mailto:jlaw@hand2mind.com)

**For more information:** <https://www.hand2mind.com/Brands/Differentiated-Math-Centers>

### **Pint Size Science**

**Description:** Engage and inspire young minds to explore scientific phenomena. This course is designed to build science understanding and respond to the ever changing interests and abilities of children.

**Grade Level:** PreK-2

**For Settings:** In school and out of school

**Contact:** Jolie Pelds, Science Center of Iowa, [jolie.pelds@sciowa.org](mailto:jolie.pelds@sciowa.org)

**For more information:** <https://www.sciowa.org/scaleup>

### **Project Lead The Way (PLTW) Cybersecurity**

**Description:** Introduce the tools and concepts of cybersecurity and encourage students to create solutions that allow people to share computing resources while protecting privacy. Students solve problems by understanding the vulnerability of computational resources and closing these vulnerabilities.

**Grade Level:** 9-12

**For Settings:** In school

**Contact:** Vic Dreier, PLTW, [vdreier@pltw.org](mailto:vdreier@pltw.org)

**For more information:** <https://www.pltw.org/our-programs/pltw-computer-science-curriculum#curri...>

### **STEM in Action**

**Description:** Incorporate three-dimensional learning with an emphasis on authentic hands-on, problem-based learning. This course follows the Engineering Design Process of defining the problem, planning solutions, making a prototype, reflecting, communicating results and redesigning.

**Grade Level:** PreK-5

**For Settings:** In school and out of school

**Contact:** Julie Law, Hand2Mind, [jlaw@hand2mind.com](mailto:jlaw@hand2mind.com)

**For more information:** <https://www.hand2mind.com/brands/stem-in-action>

### **STEM Innovator**

**Description:** Transform the classroom into incubator spaces where student teams solve real-world problems alongside industry mentors. This course prepares students with the skills and mindset to persist in STEM education, pursue STEM careers and become innovators of the future.

**Grade Level:** 6-12

**For Settings:** In school and out of school

**Contact:** Leslie Flynn, University of Iowa, [leslie-flynn@uiowa.edu](mailto:leslie-flynn@uiowa.edu)

**For more information:** <https://jacobsoninstitute.org/STEM-Innovator>

### **VEX IQ Challenge - Presented by the REC Foundation\***

**Description:** Provide the opportunity to learn introductory programming and engineering skills with a snap-together robotics system designed from the ground up.

**Grade Level:** 4-8

**For Settings:** In school and out of school

**Contact:** Mike Martus, REC Foundation, [mike\\_martus@roboticseducation.org](mailto:mike_martus@roboticseducation.org)

**For more information:** <https://www.roboticseducation.org>

### **VEX V5 - Presented by the REC Foundation\***

**Description:** Provide the opportunity to learn introductory and advanced programming and engineering skills with a snap-together robotics system designed from the ground up.

**Grade Level:** 9-12

**For Settings:** In school and out of school

**Contact:** Mike Martus, REC Foundation, [mike\\_martus@roboticseducation.org](mailto:mike_martus@roboticseducation.org)

**For more information:** <https://www.roboticseducation.org>

## **Scale-Up Summary at a Glance:**

<b>Program</b>	<b>Grade Range</b>	<b>In/Out School or Both</b>
Bootstrap: Data Science	8-12	In School
Computer Science Fundamentals	K-5	Both
Computer Science Discoveries	6-10	In-School
Computer Science Principles	9-12	In-School
Curriculum for Agricultural Science Education (CASE) – Agriculture Power and Technology	9-12	In School
Desmos Middle School Math	8	In-School
Differentiated Math Centers	K-5	Both
Pint Size Science	PreK-2	Both

Project Lead the Way (PLTW) Cybersecurity	10-12	In School
STEM Innovator	6-12	Both
STEM in Action	K-6	Both
VEX IQ Challenge – Presented by REC Foundation	4-8	Both
VEX V5 – Presented by REC Foundation	9-12	Both

**COMMITTEES:**

- **STEM BEST Selection – Dan D’Alessandro, Emily Strattan, Pat Barnes**
  - Sept.-Oct. ~3-12 hrs total. Statewide impact. Evaluate applications for Iowa STEM Business Engaging Students and Teachers (B.E.S.T.) proposals from across the state. Proposals provide youth a chance to work with business partners on real-world projects.
- **Scale-Up Program Selection – Corey Rogers, Dwight Dohlman, Linda Zachar, Emily Strattan**
  - Sept.-Dec. ~ 24 hrs total. National impact. Evaluate the proposals of STEM program providers who want their program to be on the Iowa STEM Scale-Up program menu for 2020-2021.
- **I.O.W.A. STEM Teacher Award – Beth Ullmark, John Maxwell**
  - October. ~3-12 hrs total. Statewide impact. Evaluate nominations/applications to select the IOWA STEM Teacher awardees. Six educators selected (one per region).
- **Math Scale-Up Awardee Selection – Corey Rogers, Dwight Dohlman, Linda Zachar, Trina Weiland**
  - Oct 2 -22 ~3-12 hrs total. Statewide impact. Evaluate educator applications for Iowa STEM Math Scale-Up. These math educators will implement innovative math programming during the second half of the 2019-20 school year.
- **Scale-Up Awardee Selection – Dan D’Alessandro, Kate Moreland, Adriana Johnson, Beth Ullmark**
  - March. ~3-10 hrs total. Regional impact. Evaluate educator applications to receive Scale-Up programs and help set the region's priorities for distribution of Scale-Up Awards.