In This Issue

Code Iowa Press Conference
Vermeer's Yellow Iron Academy
Bondurant-Farrar's Donovan Hill
Inspiring STEM: Joan Corbin

Upcoming Events
SIGN-UP for Educator Make-and-Take Festival
Computer Coding PD–FREE!
I AM STEM: Meet Brianna Leonard
Team ASAP Volunteers!
Prometheus Awards
STEAMfest

Teacher/Educator Make-and-Take Festival

DATE: January 27
TIME: 6:00-8:00PM
WHERE: Penn Activity Center
William Penn University
201 Trueblood Ave.
Oskaloosa, IA

EXHIBITORS/PRESENTERS, please register here.

EDUCATORS, please register here to attend.

All formal (Pk-12 classroom teachers etc.) and informal (home schools, Scout leaders, etc) teachers/
During a press conference on December 8, Governor Terry Branstad proclaimed it Computer Science Week in Iowa. With so many technology jobs left unfilled around the state, any Iowa student with solid computer science training will find employment opportunities.

According to Lt. Gov. Kim Reynolds, STEM Council co-chair, "By 2018, Iowa will have 72,000 STEM jobs to fill. That statistic represents unlimited opportunities for young people to stay in our state with successful careers. Add to that equation, the high tech entrepreneurial ecosystem in Iowa and our overall ingenuity, you begin to understand why the Hour of Code is vital to pique students' interest in computer science,"

Funds will be used in several ways, including grant awards to six schools around the state. One school won a $10,000 grant and five schools were awarded $4,000 to use in building their technology classroom resources. The schools include:

- English Valleys Jr/Sr High School
- Sawyer Elementary School
- Coming Elementary School
- Aurora Heights Intermediate School
- MOC-Floyd Valley High School
- Postville Community School District

Schools from around the state are participating in local coding events. In addition, free professional development is being offered to all educators who would like to learn more about coding. On February 11, 2015, Dr. Ben Schafer will host code training at Heartland AEA in Johnston.

Click here to learn more and register.

---

Learn How to Teach Computer Coding!

Professional Development Opportunity!

DATE: February 11, 2015
WHERE: Heartland AEA, Johnston
TIME: 8AM-4PM

Dr. Ben Schafer, hosted by the Governor's STEM Advisory Council, hosting professional development opportunities across the state. Open the public, they are aimed at teaching ALL educators how to code and teach coding in their classrooms.

Click HERE to learn more and register.

---

STEM in the Classroom

Vermeer's Yellow Iron Academy Inspires

STEM Learning Through Play

Brianna Leonard, left, often volunteers at a local STEM event.
Ankeny's STEM Stand-Out

Brianna Leonard

Brianna Leonard, a senior at Ankeny High School, spends much of her time competing in FIRST FRC Robotics Club Team 4646 ASAP. She was recently voted team co-captain. In addition, she's involved in Speech, Drama Club, Show Choir, Yearbook, Student Leadership Council, and FTC robotics. She's a member of the International Thespian Society, on Ankeny's Honor Roll, and recipient of the Soaring Hawk Award.

Leonard encourages girls, and all students, to consider robotics clubs. never thought something like my robotics group could do radically change who I am as a person, but looking back I can most definitely see the growth from when I thought 'I'm not smart enough for this' to 'I know exactly how to do this'."

In the future, Leonard plans to attend either Colorado State University or University of Wyoming, double-majoring in Criminal Justice and Technical Theater. She also hopes to come back and mentor for ASAP or the local robotics team.

"I wasn't originally going to major in technical theater," says Leonard, "but being involved in a STEM activity has sparked a passion within me for working with technology, so I knew I had no other choice."

This STEM stand-out has great advice for other students: "Your failure will lead to your biggest achievement. We would never get anywhere without making a few mistakes here and there, being rejected every once a while, and struggling through difficult situations."

One of her favorite examples is Albert Einstein. Leonard says, "Even when other people seem to give up on you, you should never give up on yourself."

VOLUNTEER and spread some cheer!
Hill Builds STEM Programs

What do MacGyver challenges, Rube Goldberg machines and the band OK Go have in common? All are part of Donovan Hill's lesson plan on this given Thursday.

Hill, who teaches at Bondurant-Farrar's middle and high schools, champions STEM every day by bringing creativity, the arts and best practices to his classroom.

This year Hill received a PLTW Scale-Up from the SC STEM Hub that he's piloting with TAG students and expanding to grade level next year. Hill enjoys the challenge. "We're used to answering questions that have only one answer, but PLTW projects don't have just one answer," said Hill. "It's much more than that."

His students enjoy the challenge, also. Rachel, and eighth grader, said, "I like that we learn a new way of doing things. It makes you think differently and that's fun."

In another class, Hill teaches coding to 7th grade students. Hills likes teaching code because it makes students think sequentially, process directions and understand how a computer works. "We do need people who can think systemically," said Hill. "If you can think outside the box, that's good. But if you can think both inside and outside the box, that's great!"

Hill's Teacher TIP of the Day: OK Go's "This Too Shall Pass" video provides a cool example of the most complex simple machine seen in a long time, making it a great hook for such a unit. Click HERE to check it out.

Inspiring STEM

Building STEM confidence in all students:

Joan Corbin

Joan Corbin, SC STEM Hub Advisory Board member, is a STEM advocate for all students. She's been on Pella's School Board for 10 years, serving three years as Board President. In addition, she's the Director of District #8

The 10th Annual Prometheus Awards

ASAP's robotics team ensures th place on the Nice List by bell ringing the Salvation Army.

CAD Team Leader, Marc, says t team spent about 10 hours designing Buster, their prototype, and another 1 hours getting Buster ready to ring the bell.

Want to spread some cheer of your own? Become a volunteer!

- Be a Million Women Mentor participant.
- Help at a STEM Festival.
- Find your local school and help in a classroom.
- Apply to serve on a Regional or State Board.

Email scstemhub@drake.edu to learn more!
School Boards.

Corbin talks about excellent practices at Russia-Boyd, consensus building of both rural and urban school districts around STEM education, Corbin encourages districts around the area to study best practices in curricular initiatives and to hire highly skilled instructors at all levels. She’s particularly interested in practices that attract careers in STEM: “Raising 5 girls, I’m keenly aware of the precursors to girls being successful in these fields.”

Corbin remembers her 6th grade self was nothing like “confident” as it relates to STEM subjects. “Interestingly, my serious interest in assuring that young girls are prepared, encouraged and supported in STEM fields originates in my own abysmal preparation,” says Corbin. “Though I can’t say for sure, I do wonder what might have happened had only one variable changed in my world by the time I reached 6th grade.”

Corbin says that even limited exposure to a related career might have built confidence. “Though I might have had an opportunity to follow a different path had one variable been different, I suspect I would not have the sensitivity to the plight of young girls who are ripe with potential but lacking gut instinct and confidence.”

Her goal in being on the board is to provide "stellar tools for ALL students so that a STEM career could always be a choice. Building that confidence, creating a hook and having at least one teacher or person of significance say, 'I believe you could do this!' is the ideal." Iowa students are fortunate to have such a strong advocate.

Events

Add these dates to your calendar!

Jan. 16 -- I'll Make Me a World's STEM Education Day
Jan. 27 -- SC Advisory Board Meeting, Grinnell
Jan. 27 -- William Penn Make-and-Take Teacher Festival
Feb. 6-7 -- Iowa Conservation Winter Workshop
March 28 -- STEAMfest, Oskaloosa
March 30 -- Tama Community STEM Festival
April 16 -- Drake STEM Festival
April 16 -- Prometheus Awards, Des Moines
June 15 -- CASE Training, TBA

STEAMfest

This free, one-day event is open to families to come in and learn more about STEM and the STEAM approach to learning. Booths will be provided by local organizations and groups, including 4-H, ISU Extension and Outreach, Indian Hills Robotics, FTR! LEGO League and more.

Questions? Contact Amy Brainard at vermeera@iastate.edu

AGES: 5-15, open to the public
WHEN: March 28
WHERE: ISU Extension and Outreach
Mahaska County
212 North I Street
Oskaloosa, Iowa 52577

On Thursday, April 16, 2015 the Technology Association of Iowa and LWBJ Financial bring you The 10 Annual Prometheus Awards. This year will celebrate a decade of Prometheus historic past by showcasing Iowa’s brightest successes and innovative thinkers in technology over the last 10 years.

5:00 PM VIP Reception
6:15 PM Dinner and Welcome
6:30 PM Awards Presentation

Click HERE to view award categories and criteria, nominate online and register to attend.