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Newsletter

Special Interest Articles

Individual Highlights

5 Keys to a Successful STEM Program at Your School

By Todd Tyner

One principal reveals the science behind starting a successful STEM program.

Interested in making the jump to STEM learning at your school? Mine was too. As an elementary math magnet school for nearly two decades, Mound School was looking for a way to further incorporate science into the curriculum. After receiving a federal grant from the Magnet Schools Assistance Program, we altered our approach and sought to transition to a STEM curriculum.
Now in our first full year of implementation, we have a few suggestions to help other schools replicate our success.

1. Integrate hands-on practice
Historically, our curriculum was primarily focused on math integration with some teachers offering science lessons a couple times a week, while others only a couple times a month. In order to properly become a science magnet school, we needed a new approach. One way we sought to better integrate science into our curriculum was by dedicating one classroom as the science lab, a space for students (and teachers!) to practice science in a hands-on way.

We also pursued several strategic partnerships with local farms, allowing us to connect our students to the agriculturally rich community in which we live. In addition to these partnerships, we also established a school garden. Both of these opportunities have been a great way to transform traditional classroom learning into a hands-on practice. By allowing students to take variables discussed in the classroom and put them to the test in their garden, you are giving them real-life insight into the experiences of both scientists and farmers.

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5 Keys to a Successful STEM Program at Your School - continued

2. Increase digital access school wide

In addition to desktop computers for teachers, each fifth grader also receives a Chromebook to use throughout the academic year, and we are in the process of implementing iPads into each classroom. With the grant, we were fortunate to receive a new computer lab, thus further increasing access to digital tools throughout the school.

Contrary to previous generations of students who prefer to read from hard-copy text, we are finding that students are becoming increasingly engaged in reading texts and other course materials from a tablet because they are fascinated by the technology in their hands, thus making our digital transition run even more smoothly.

3. Promote engagement with programs and incentives

Since transitioning to a STEM curriculum, we have worked to integrate engineering lessons into the classroom by linking it with math lessons and providing after-school courses in engineering and robotics.

Contests have been a great way for us to promote interest in STEM curriculum, while also encouraging our students to read. Teaching young people to read, after all, is still the most important thing we do in this business. MyOn, a digital literacy platform, has been an invaluable resource to our transition to STEM as the critical thinking skills required for success demands that students become strong readers as early as possible. The program, which is free to families, provides students with access to thousands of books catered to each student's unique personal interests and reading level. Teachers are able to use the books to supplement their curriculum and enhance learning both in the classroom and at home through assigned reading minutes.

In a recent contest, myON selected 25 STEM books for our students of all reading levels. Surprisingly, the results of the myON Principal Reading Challenge showed that the most participants who read all the books were young students in grades K-3, and more than 50 percent of those who completed the challenge were girls.

4. Support your teachers, support your program

Like most transitions, our shift to a STEM curriculum has not been easy. Teachers are artists and each approaches their craft in a different way. While some were reluctant, we have done our best to support our staff with additional PLC times to foster staff discussion and collaboration. It is important to emphasize that our main goal is to serve our students and provide them with the best education possible and, although there have been hiccups along the way, I feel very confident that our teachers are doing a great job of implementing STEM in order to achieve this goal.

5. Engagement is key

The key to any successful STEM program is engagement, which can manifest itself in a number of different ways. Engage your students in the world around them by bringing projects outside of the classroom, like a school garden. Engage teachers in collaborative projects. Transition can be scary, so allow your teachers to collaborate and experiment to find the practices that work for them. Seek community engagement in your cause as well. Partnerships with local companies, museums, farmers, etc. can all be utilized to enhance your curriculum, but it is up to you to pursue them.

Since transitioning to STEM, I am seeing engagement on a level that I had not seen in the past. By connecting what students are learning in the classroom to hands-on activities, and increasing involvement with community members, we have created a strong, well-rounded curriculum designed to give our students a 21st-century education.

Read more online: http://www.eschoolnews.com/2015/01/23/stem-keys-939/

Todd Tyner is principal of the Mound Magnet for Science & Global Citizenship in Ventura, CA.

Meet Pecha Kucha, the Japanese Presentations Changing Everything about PowerPoint

by Ivy Nelson

"Students, please remember to monotonously read every slide word-for-word when you present to the class." Said no teacher ever.

As I prepare for my presentation this week at the Florida Educational Technology Conference (FETC) on "Presenting with Pecha Kucha," my colleagues have repeatedly asked me, "What is Pecha Kucha?" The short answer is it's a great presentation style that gets students thinking and learning, not reading slides. A longer one might be to explain that the term comes from the Japanese words for "chit chat," so as you might guess this unique presentational style embraces a more conversational tone. But more importantly, **it is transforming presentations as we know them**.

My performance arts background as an actress, director, and theatre teacher gives me a great understanding of what it takes to be a dynamic performer, and an even greater appreciation of a great performance. Knowing this, it comes as no surprise that after several years of teaching high school theatre and English, I became utterly dejected by the quality of presentations my students gave.

It wasn't their fault; my students simply had never been taught how to present information in a way that was engaging and interesting. In fact, many adults struggle with this same task. We have all seen so many bad presentations in our lives, we have come to think that's what presentations are supposed to be like. My students honestly thought the act of giving a presentation meant looking something up on Google, copy/pasting some information into PowerPoint slides, and then getting in front of the class and timidly reading those slides verbatim to a disinterested and disengaged audience (myself included).

I had to stop the madness!

Around this same time, a teacher colleague of mine introduced me to Pecha Kucha. I was very intrigued by this presentation style, as it relies on visual images instead of slides crammed with a thousand bullet points and so much information it will only fit on the screen in 6-point font. I also liked the fact that Pecha Kucha forces the presenter to actually know what they are talking about and puts a conversational ("chit-chat-y" if you will) tone in their presentation (you can watch sample presentations online).

Read more online at: http://www.eschoolnews.com/2015/01/22/pechakucha-powerpoint-359/

Professional Development Opportunities

Professional Development Opportunity for Indiana Middle Schools 2015 - 2016

Reading Apprenticeship at WestEd IMPROVING ACADEMIC LITERACY

What Is Reading Apprenticeship: Writing Connections?

Reading Apprenticeship is a research-based professional learning model and instructional framework to improve student literacy and learning. With a focus on discipline-based ways of thinking, reading, and writing, Reading Apprenticeship is not a curriculum but a way of working with teachers and students to help them make the most of their own subject knowledge, tools, and texts, so that even inexperienced student readers and writers engage with complex texts and gain deeper understanding of core subject area concepts.

Who Should Attend?

Any teacher who independently teaches at least one regular education middle school science, history/social studies, or ELA class is eligible to participate. Participating school teams should include 6-9 teachers with at least two teachers in any of the aforementioned subjects. School teams meeting these criteria will be given priority.

Results

Randomized controlled studies have found that Reading Apprenticeship increases students' scores on standardized subject area and reading comprehension tests—in some cases by more than a year beyond those of control students. In addition, students become more confident, persistent, and engaged academic learners. Read the research at http://readingapprenticeship.org/research-impact/research-results-tools/randomized-controlled-studies/

Professional Development Model

1. Seven days of in-person training, beginning with a 3-day Summer Institute in 2015
2. Four hours a month of online learning in small content area groups (synchronous "live" interaction with teachers, not video watching).
3. Monthly learning sessions with your school team.

Benefits

This unique opportunity includes high quality professional development, both in-person and online, as well as online support, materials, and substitute costs — at no cost! Actual value of this grant-funded professional development is $3,500 per teacher. Teacher stipends up to $500 are available for participants.

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Professional Development Opportunities - continued

Student benefits

1. Extensive reading of a broad range of complex, high quality texts.
2. Strategic reading, problem-solving and writing.
3. Close reading and use of textual evidence to support reasoning and writing.
4. Building stamina and self-efficacy with progression toward independence.

Expectations

1. Teachers commit to attending all 7 days of in-person training and 4 hours/month of online learning.
2. Teachers commit to meeting once a month at your school with colleagues.
3. Teachers implement Reading Apprenticeship strategies and routines in their classrooms.
4. Principals participate in the first 3 days of the learning and support school teams.
5. Schools are responsible for travel expenses for their participating teachers.
6. WestEd will not cover any travel expenses.

2015-2016 LOCATION

AVON MIDDLE SCHOOL NORTH
1251 N. DAN JONES ROAD
AVON, IN 46123

Schedule

July 6-8, 2015:	3-Day Opening Institute
Fall 2015:	Online Learning Sessions, about 4 hours a month
January 25-26, 2016:	2-Day Winter Institute
Spring 2016:	Online Learning Sessions, about 4 hours a month
July 11-12, 2016:	2-Day Closing Institute

Read more online at: http://readingapprenticeship.org/current-projects/reading-apprenticeship-writing-connections/

Upcoming Events

The Library of Congress Summer Teacher Institutes

Immerse yourself in the practice of teaching with primary sources from the unparalleled collections of Library of Congress this summer. Apply to attend a week-long professional development program for K-12 educators in the nation's capital.

In 2015, the Library will offer five Institute weeks:

- **Open sessions (any subject area):** June 22-26, July 6-10 or July 27-31
- **Science focus:** July 20-24
- **Civil rights focus:** August 3-7

Application Deadline: March 24th, 2015

Each Institute week, Library of Congress education specialists facilitate sessions modeling strategies for using primary sources to engage students, build critical thinking skills, and construct knowledge. Participants reflect on and discuss how the strategies apply to their students, subject areas, and classrooms or school libraries.

Read more online at: **http://www.loc.gov/teachers/professionaldevelopment/teacherinstitute/**

What PRISM Can Do For You!

- Easily find the perfect teaching and learning resources from our library of over 4,000.
- Save a list of your favorite resources for quick retrieval.
- Create and share lesson plans that teach your subjects utilizing your favorite resources.
- Develop online classrooms with interactive assignments, lessons, quizzes and more!
- Store your classroom materials online so that they are available to you from any computer.
- Reach your students more effectively by using web media for the digital age.
- Earn PGP points by completing PRISM led online Moodle course – either Beginning Moodle or Intermediate Moodle courses are available to you at no cost several times throughout the year.
- Select from free learning resources that emphasize visualization, rich context, staged-problem solving, and electronically enabled collaboration / communication.
- Augment your own dynamic presence in the classroom with teaching tools that mirror the skills needed for success in higher education and the 21st Century workplace.

*Through our strong support from the **Lilly Endowment** and others, we are constantly growing and improving. Check our site regularly to see what new resources you can use in your classroom.*

www.rose-prism.org