



K-12 STANDARDS

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NEWSLETTER

May 2015

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*Webinar: Effective
Discourse
Communities in the
STEM Classrooms
using the Practices
May 6, 2015*

Teaching students how to participate in productive science talk in the classroom is a key way to help them learn about and enact the Science & Engineering Practices, as well as the Mathematical Practices.

*Constructing
Explanations in
Science, Grades 5-8
August 20, 2015*

Cost is \$50 per person
Learn to successfully
incorporate scientific
explanation in your classroom
using a variety of strategies,



Happy Teacher Appreciation Week!

Thank you does not begin to cover the gratitude our department has for what you do every day for students. Your dedication to providing outstanding learning opportunities and feedback to students and parents is certainly noticed and respected. You inspire, motivate,

and make a positive impact on countless lives everyday.

Thank you for believing in your students and recognizing the best in every one of them. The extra time you devote before work, after school, and over weekends to plan meaningful and engaging lessons, cohesive units, and strategic learning progressions for students is valued and appreciated. As stated recently by Deputy Superintendent Jennifer Johnson, "What you do matters!"

Thank you for all you do every day for the **1.1 million** students in Arizona.

Sincerely, The K-12 Standards Team!



K-12 Standards is currently accepting applications from teachers, higher education faculty, teacher professional organizations and foundations for involvement in the review of the Arizona

Standards.

If you are interested in being a part of a standards review committee, please complete the application found on the [Arizona Educator Engagement Opportunities website](#).

May 19th - \$45

END THE SCHOOL YEAR WITH... FUNCTIONS AND MODELING IN ALGEBRA FOR GRADES 7-12

Join the ADE and NAU on May 19th to end the year

rubrics, and guidelines for designing assessment items. You will break down the complex practice of scientific explanation into claims, evidence, and reasoning, and view examples of what the science practice explanation looks like when it is successfully implemented in the classroom.

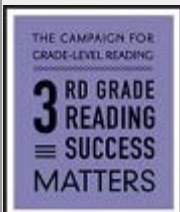
Participants will receive a copy of the book, *Supporting Grade 5-8 Students in Constructing Explanations in Science* by Katherine McNeill and Joseph Krajcik.

**Regional Center
Upcoming PD –
Southern Region
Writing Strategies for
Teachers in Grades 3-8
May 26th and 27th**

FREE

Participants will learn writing strategies to help students complete analytical paragraphs. In addition, teachers will gain practical skills in running effective Socratic Seminars which logically lead to Persuasive and Argument Writing.

*** CONGRATULATIONS**



Arizona Honored as Campaign Pacesetter

Eight states across the nation have been named

2014 Pacesetters by the Campaign for Grade-Level Reading, cited for their efforts to begin to turn around the crisis in early reading achievement among low-income children and in so doing, to put those children on a path to school success. Reading at grade level by the end of third grade is a key predictor of high school graduation. More than 80 percent of low-income children miss that critical milestone.



with a “radical” mathematical event. Shannon Guerrero and Amy Rushall will be leading an engaging one-day workshop that will focus on essential knowledge in promoting conceptual understanding of functions. Participants will engage in various activities that promote a robust understanding of functions. [Click here to register](#)



Arizona Department of Education is hosting the Teachers' Institute.

Tailored to the needs of both general education and special education teachers, the institute will cover topics such as Standards and content, Instructional planning and resources, Behavioral/classroom culture, Teacher leadership, Assessment system and data, and Special topics. This two-day conference will feature both national and Arizona educators. [Register here.](#)



What is Summer? It is time for sun, fun, and reading!

The Arizona Department of Education in partnership with [Arizona State Libraries](#), [Read on Arizona](#) (readonarizona.org), and [Lexile](#) (Lexile.com) has created a summer reading initiative. Here's how you can help Arizona put reading first and increase the time every child

spends reading or being read during the out-of-school/summer (mid-May to August) time. The goal is for every child to read at least 20 minutes a day during the summer. Let's see if we can beat last year's goal of 118,796 participants reading 59,829,055 minutes!

Here are some simple steps to get started:

1. Sign up for the summer reading program at your local library or download your own [reading log](#).
2. Use the ["Find a Book"](#) or ask for the suggested book list for the summer reading program at your local public library.
3. Use your [reading log](#) to track the time spent reading.
4. Visit your [public library](#) again and again.
5. Continue to track minutes over the summer and help Arizona put reading first!

WHAT'S NEW IN EDUCATIONAL TECHNOLOGY



Upcoming Conferences: Imagine, Inspire Innovate [AZTEA 2015 Spring Conference](#)
Arizona's award-winning educators share their innovations and best practices with other Arizona educators! AzTEA's past award winners and grant recipients will be presenting the inspiring work they are doing with technology integration in the classroom!

Upcoming Conferences: [Mobile Learning Experience 2015 Conference](#)
Educators from across the globe will gather June 10-12 to share, collaborate and explore the many

facets of mobile learning. Whether you are new to mobile learning or looking to sharpen your skills, make your way to Tucson, Arizona for the premier mobile learning conference, Mobile Learning Experience 2015.



Ed. Tech Event of the Month: [Hands on Digital Tools Workshop](#)

There are many digital tools that specifically address the ELA and Education Technology standards. Participants in this workshop will make use of multiple digital tools and integration strategies throughout the day that support students when producing and publishing their writing. In addition, participants will share and discuss their own strategies that support teacher integration of technology as a tool for effective instruction.



Awesome Upcoming Ed. Tech Workshop: Game Based Learning: How Digital Games Support the Standards and Student Achievement in Reading and Writing (2 Day Workshop)

Ever wonder how teachers using digital games in their classroom? This 2 day hands-on workshop aims to present participants with research based strategies, examples and appropriate game based learning methods to integrate into their classrooms to support reading, writing, foster collaboration and critical thinking skills. [Register for the July 14-15](#)

Professional Development Spotlight!



Online Intel Teach Elements Courses through IDEAL

June 3-June 23, ADE is offering two (2) facilitated online Intel Teach Elements courses. For more information and to register click the link [IDEAL](#). Intel® Teach Elements is a series of free, high interest, professional development courses that provide deep exploration of 21st century learning concepts. Each course is modular, with interactive activities and exercises to help access the content.

Upcoming Ed. Tech. Productivity Tools in the



Classroom and Digital Tools for Digital Learners Webinar Series.

Join us for engaging Webinars that explore a variety of digital tools that support learning and engagement in the classroom. Exploring "how digital tools help us do what we do better", these two Webinar series bring to the classroom digital tools that are free, easy to use and that can produce immediate benefits in the classroom.

Educational Technology Professional Development Opportunities

May

5/12 [Assistive Technology Chrome Extensions for Struggling Students](#)

[Productivity Tools in the Classroom Series: Chrome Extensions for the Classroom--Part 2](#)

5/28 [Digital Tools: Produce, Publish, Interact and Collaborate in Digital Writing](#)

June

6/1 [2 Day STEM Boot Camp for 3-6 Teachers \(June 1st & 2nd\)](#)

6/9 [Technology Integration in the SEI Classroom: Digital Collaboration with Digital Tools \(10:00am\)](#)

6/9 [Technology Integration in the SEI Classroom: Digital Collaboration with Digital Tools \(3:30pm\)](#)

6/10 [Using Infographics in STEM](#)

6/18 [Digital Tools for Digital Learners Webinar Series: Going Interactive with Thinglink](#)

6/22 [Productivity Tools Webinar Series: Become More Productive Using Evernote Part 1](#)

6/23 [Productivity Tools Webinar Series: Become More Productive Using Evernote Part 2](#)

July

7/28 [Integrating Technology to Support Writing in Mathematics \(10:00am\)](#)

7/28 [Integrating Technology to Support Writing in Mathematics \(3:30pm\)](#)

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Purdue Online Writing Lab (OWL) - The Purdue Online Writing Lab (OWL) is a free resource for teachers and students that provides instruction on a multitude of topics, including the writing process, research strategies, visual rhetoric, writing for specific tasks, applying for a job or to a school, grammar and mechanics, and proper citation (MLA, APA, and Chicago). Students can use this as a valuable resource at home and in the classroom, and teachers can rely on it to support their instruction in class.

The OWL has even added a video component for more visual learners. Their YouTube channel can be found [here](#), and it includes videos on rhetoric, the writing process, making video resumes, and proper citation.

Professional Development Spotlight!

[Multisensory Grammar \(May 12 \\$60.00\)](#)

This session will provide Mainstream K-3 teachers, ELL teachers, special education teachers, interventionists, reading teachers and coaches the basic knowledge of the parts of speech (grammar) and the essential structure of a sentence (syntax). Color coding is used to introduce and reinforce the parts of speech. Hands-on activities further students' understanding and sentence pattern cards help with sentence composition, length, and complexity.

[Academic and Argument Writing: Entering the Conversation \(May 28 - \\$ 40.00\)](#)

This session will address the challenges of effective writing instruction required by the Arizona Standards. This training will utilize some of the approaches found in *They Say, I Say: The Moves That Matter in Academic Writing* by Gerald Graff and Cathy Birkenstein. Each participant will also receive a copy of the book.

English Language Arts Professional Development Opportunities

[Click here to download the Professional Development Opportunities for English Language Arts](#)

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WHAT'S NEW IN MATHEMATICS

Summer Math Institute - June 2-4, 2015 Tucson, AZ

What do Dan Meyer, Susan O'Connell and Bill McCallum have in common besides being amazing math leaders? They will all be key note speakers this summer in Tucson!! Join the K-12 Standards Math Team and NBCT Teachers in a 3-day Summer Math Institute sponsored by the K12 Center and the ADE!

[Click here](#) for additional details regarding the key note topics and registration information! Hope to see you in Tucson!

[Updated High School Course Guidance Documents](#). These documents are designed to assist LEAs in making decisions about content for Algebra I, Algebra II, and Geometry courses. The Course Content Boundaries tables located in these documents have been updated to align with AzMERIT. These tables help educators make decisions about content standards included in more than one course.

Mathematics Professional Development Opportunities

May

5/12 [Webinar: Integrating Mathematical Practices in Instruction, Grades 6-12](#)

5/18 [Webinar: Math Problem Solving: Multiplication and Division in Grades 3-5](#)

5/19 [Functions and Modeling in Algebra, Grades 7-12](#)

June

6/2 [Summer Math Institute with Arizona K12 Center \(June 2 -4\)](#)

6/15 [The Progression of Fraction Understanding grades 3-6](#)

6/15 [Webinar: Development of Number Sense in K-2](#)

6/16 [Webinar: Addition and Subtraction in K-2](#)

6/17 [Webinar: Student Strategies for Addition and Subtraction](#)

6/18 [Webinar: Parents as Partners in K-2](#)

6/23 [3-5 Boot Camp: Getting Ready for the 2015-16 School Year \(June 23 -25\)](#)

6/22 [Webinars: High School Progressions Series: *Coherence*](#)

6/23 [Webinars: High School Progressions Series: *Graphs*](#)

6/24 [Webinars: High School Progressions Series: *Functions*](#)

6/25 [Webinars: High School Progressions Series: *Transformations*](#)

July

- 7/13 [Webinar: Development of Fraction Sense Grades 3-5](#)
- 7/14 [Webinar: Problem Solving in Grades 3-5, Using Table 2](#)
- 7/15 [Webinar: Student Strategies for Multiplication and Division](#)
- 7/16 [Webinar: Parents as Partners in the 3-5 classroom](#)
- 7/16 [Problem Solving in 4-8: Implementing Math Tasks that Promote Reasoning and Problem Solving](#)
- 7/20 [Webinar: Ratio and Proportion in Grades 6-8](#)
- 7/21 [Webinar: Geometry in Grades 6-8](#)
- 7/21 [Integrating Mathematical Practices in Instruction, 6-12](#)
- 7/22 [Webinar: Statistics in Middle School, Grades 6-8](#)
- 7/23 [Webinar: Parents as Partners in the 6-8 Classroom](#)
- 7/28 [Webinar: Integrating Technology to Support Writing in Mathematics](#)
- 7/30 [Webinar: Integrating Mathematical Practices in Instruction, Grades 6-12](#)

August

- 8/25 [Effective Discourse Guided by the Math and Science Practices Grades 4-8](#)
- 8/25 [Problem Solving & Critical Thinking in High School Algebra](#)
- 8/27 [Geometry in Middle School, Grades 6-8](#)

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WHAT'S NEW IN SCIENCE

Professional Development Spotlight!

Constructing Explanations in Science, Grades 5-8
August 20, 2015 Cost is \$50 per person

Learn to successfully incorporate scientific explanation in your classroom using a variety of strategies, rubrics, and guidelines for designing assessment items. You will break down the complex practice of scientific explanation into claims, evidence, and reasoning, and view examples of what the science practice explanation looks like when it is successfully implemented in the classroom. Participants will receive a copy of the book, *Supporting Grade 5-8 Students in Constructing Explanations in Science* by Katherine McNeill and Joseph Krajcik.

Science Professional Development Opportunities

August

- 8/20 [Constructing Explanations in Science, grade 5-8](#)

September

- 9/16 [What Are My Science Students Thinking? \(Grades K08\)](#)
- 9/24 [Making Sense of Science - 5-day Energy Course for Teachers \(9/24-25, 10/9 -10\)](#)

On-demand

[View a recorded Science webinar \(presente by ADE\)](#)

WHAT'S NEW IN SOCIAL STUDIES

The Arizona Council for History Education will hold its annual conference on August 15, 2015 at the Mesa Arts Center. The theme for the conference is: Engage, Excite, Enrich: Making History Education Matter. With the timing of the conference right before the start of school, this year's theme is intended to encourage presentations that will engage, excite, and enrich history instruction and history learning in Arizona. Sessions will include U.S., world, and Arizona history; innovative ways to teach and share history; and address the Arizona literacy standards for history/social studies.

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Social Studies Professional Development Opportunities

On-demand [View a recorded webinar](#) (Presented by ADE)

- 8/15 [Annual Conference of the Arizona Council for History Education](#)

WHAT'S NEW IN STEM

Looking for helpful resources to support your interdisciplinary STEM planning?

The ELA/Literacy standards play a very important role in STEM teaching and learning! ReadWorks provides units, lessons, and leveled non-fiction and literary passages for grades K-12. It's FREE to register <http://www.readworks.org/search/site/STEM>

STEMJOBS: Do What You Love! This website for middle and high school students and STEM teachers is a great resource for finding information and generating enthusiasm about science, technology, engineering, and math careers. <http://stemjobs.com/>

What's "News" in STEM?

STEM is a growing young initiative in the K-12 learning arena. Many people are still trying to wrap their heads around it. Teachers ask all the time, "What makes something STEM?" or "How do I know I'm doing it?"

Here are some essential elements to consider for in K-12 STEM teaching and learning:

- Students are engaged and interested in being scientists, mathematicians, and engineers
- There is a strong focus on the 21st Century Skills: creativity, collaboration, communication, and critical thinking
- Lessons and learning are tied to real world, relevant, and rigorous STEM work

PROFESSIONAL DEVELOPMENT SPOTLIGHT

STEM Boot Camp

July 7-8, 2015 Cost is \$50 per person (includes book: *STEM Lesson Essentials - Integrating Science, Technology, Engineering and Mathematics*)

STEM (science, technology, engineering, mathematics) should not be viewed as curriculum, but rather a way of organizing, integrating, and delivering instruction through an intentional interdisciplinary mindset. There is an increasing need to better understand STEM and provide for more rigorous, relevant and engaging interdisciplinary STEM teaching and learning opportunities. This 2-day "boot camp" will energize and motivate teachers by building background, providing tools and resources with support to successfully implement integrated STEM connections.

Through this engaging, hands-on 2-day STEM Boot Camp participants will:

Develop a foundation for understanding the interdisciplinary nature of STEM teaching and learning. Build their own STEM teaching toolkit based on research and best practices. Create a framework to develop and sustain a STEM learning environment

Effective Discourse Guided by the Math and Science Practices

August 25, 2015 Cost is \$50 per person (includes book: *Success in Science through Dialogue, Reading and Writing*)

Have you ever wondered how to get your students to think like a mathematician or ask questions like a scientist? This professional development opportunity will help teachers set up a classroom environment that encourages students to talk, read and write *or argue* to improve their understanding in science and math. Connections using The Practices are the foundation for effective classroom discourse.

Through this workshop participants will:

- Make connections between The Math and Science Practices
- Determine how to make use of literacy techniques to increase student understanding in math and science
- Build understanding of high quality tasks
- Build understanding of high quality engagement techniques in discourse



STEM Partnerships:

Save the Date! - January 21-23, 2016

STEM National Conference right here in Phoenix hosted by the STEM AZ Education Collaborative, Science Foundation Arizona and ADE.

Registration information coming soon

STEM Professional Development Opportunities

May

5/6 [Webinar: Effective Discourse Communities in the STEM Classrooms using the Practices](#)

June

6/10 [Webinar: Infographics in STEM](#)

6/16 Webinar: STEM in the Primary Classroom

6/24 [Webinar: STEM Learning Using the 5Es Instructional Model](#)

July

7/6-7 [STEM Boot Camp](#)

7/22 Webinar: Developing STEM Literacy through the Practices

August

8/5 [Webinar: Effective Discourse Communities in the STEM Classroom Using the Practices](#)

8/11 Webinar: "E"ngineering in the STEM Classroom

8/20 Webinar: Reading & Writing in the STEM Classroom

8/25 [Effective Discourse Guided by the Math and Science Practices](#)

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