



Meet. Share. Spark Innovation.

Dear Colleagues,

Let your faculty meetings be a time when information and conversation spark innovation.

The ISACS Spark is an initiative to provide our member schools with quick and engaging professional development opportunities to spark conversations in 15 minutes or less. These “sparks” can be used as food for thought or as opportunities to engage in larger conversations among peers. ISACS sends Sparks throughout the school year and we hope you will find them helpful in stimulating conversations around exciting research related to teaching and learning.

December’s Topic – Coding!

A parent at one of our ISACS schools recently asked the following question: “I hear so much talk about coding. When I was in school, *colored chalk* was a cause for excitement. What exactly *is* coding?”

We hope the following clips will be helpful to you and perhaps the parents in your school in understanding the benefits of learning to code!

- **Clip #1: [Mark Zuckerberg talks about coding](#)** Founder and Facebook CEO Mark Zuckerberg talks about the importance of coding and the importance of teaching kids to code. Great for sharing with students and parents. (5:43 minutes)
- **Clip #2: [Thomas Suarez: A 12-year-old app developer](#)** (Filmed at TEDxManhattanBeach) Most 12-year-olds love playing videogames -- Thomas Suarez taught himself how to create them. After developing iPhone apps like "Bustin Jeiber," a whack-a-mole game, he is now using his skills to help other kids become developers. (4:40 minutes)
- **Clip #3: [Top Ten Reasons to Code](#)** This video reviews “top 10 reasons to code” while providing an introduction to computer programming. In the video, students will learn about the different types of work computer programmers do and some of the perks of a career in coding. This video features a celebrity hip hop artist, a basketball player and two tech moguls. [Click here](#) to find the complete lyrics and a printable worksheet. (2:13 minutes)

(Length of time for all three clips: approximately 12 ½ minutes)

Additional resources for teaching kids to code:

- **Website:** [ScratchJr Coding for kids](#)
- **Clip #4:** [Learning How to Code: Scratch at LA Makerspace](#) In this workshop spotlight, Brian Foley of CSUN highlights how makers of all ages take their first steps toward learning how to code and how to connect computers to mechanisms in the physical world with the help of MIT's Scratch program. (3:30 minutes)
- **Clip #5:** [Khan Academy Computer Programming in the Classroom: Video Overview](#) (5:57 minutes)
- **Clip #6:** [Is Computer Programming hard to learn?](#) This last video is slightly longer but we think it might be interesting for those who teacher older students. (9:15 minutes)

(Length of time for all three additional clips: approximately 18 minutes 45 second)

We hope these ideas ignite thinking and conversations in your school!

Regards,

The ISACS Professional Services Committee & the ISACS Professional Development Team

The ISACS Spark has been developed by the Professional Services Committee (PSC). The PSC is comprised of teacher leaders from around the region who are passionate about professional development. All sites and clips have been reviewed and deemed appropriate for sharing.

PAST SPARKS

November 2015 Spark:

The November Spark focuses on How to Change the World! Here are videos to inspire your students to change the world - one person at a time.

“If your actions inspire others to dream more, learn more, do more and become more, you are a leader.” – John Quincy Adams

- **Clip #1:** [This 14-Year-Old's Homework Assignment Sparked A Mission to Feed America](#) (4:47 minutes)
- **Clip #2:** [Can a bunch of school kids really change the world in five minutes a day?](#) This class of primary school kids demonstrate that it only takes five minutes a day to make a positive impact—from recycling to planting fruit and veg and telling jokes. Learn how elementary students worked to: **Change the World in Five Minutes – Everyday at School** (4:32 minutes)
- **Clip #3:** [Heifer International, One Cow](#) (2:25 minutes)

(Length of time for all three clips: approximately 12 minutes)

October 2015 Spark:

The October Spark focuses on Experiential Learning -- learning by doing, experiencing, making mistakes and repeating!

- **Clip #1:** [Ryan Ruff 8th grade science class Scooter Design challenge Newton's 3rd law of motion](#)
This video shows Ryan Ruff's 8th grade science class' scooter design challenge where students apply Newton's 3rd law of motion. (4 minutes)

- **Clip #2: [What does the Bat say?](#)** The 3rd grade class at Inspire Academy - A School of Inquiry in Muncie, Indiana wrote and performed this song to share what they had learned about the federally endangered Indiana Bat (*Myotis Soldalis*) through the first case study of their learning expedition. (5 minutes)

(Length of time for all three clips:: approximately 12 minutes)

September 2015 Spark:

The September Spark focuses on New Ways to Assess Your Own Use of Technology: Do You Know About SAMR? The Substitution Augmentation Modification Redefinition (SAMR) Model offers a Blooms Taxonomy approach for assessing the impact of technology on teaching and learning. It also illustrates the progression that adopters of educational technology often follow as they progress through teaching and learning with technology. This video "The SAMR Model Explained by Students" was created to give teachers a broad overview of Ruben R. Puentedura's SAMR framework for technology integration. You may find this model to be helpful as you consider the impact of technology on learning in your own classroom.

- **Clip #1: [The SAMR Model Explained By Students](#)** (3:54 minutes)
- **Clip #2: [The SAMR Model and Starbucks](#)** (2:40 minutes)

(Length of time for both clips: approximately 7 minutes)

This email has been sent to heads of school, division heads, assistant/associate heads, deans of faculty, deans of studies, directors of professional development and ISACS teacher representatives.