



Science Monthly

District NGSS and Science News

HAPPY SPOOKTOBER

OCTOBER 2019



Website of the Month:
Edpuzzle

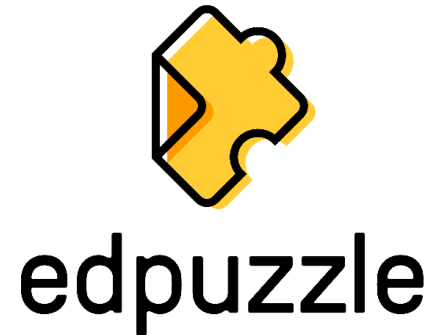
Youtube Channel Of the Month:
Scientific American

Instructional Materials Adoption Updates

Website of the Month: Edpuzzle


<https://www.edpuzzle.com>

Every month, a channel on YouTube is highlighted in this newsletter so that you can have another resource to visually demonstrate phenomena to your students. Many teachers often choose a video that addresses an important concept that for either budget or safety reasons cannot be demonstrated in the classroom, making sure that our students still have some access to authentic experiences when we are limited inside our 4 walls. I used to be the teacher with my post-it note that had all my minute marks where I would pause and have my questions written so that I remembered what to ask the students.



Binging with Babish: Pancakes from Uncle Buck (feat. Dan Souza and a Giant Robot)
Jacqueline Gardner



 OPEN ENDED QUESTION

1) What makes pancakes different from other baked goods like muffins and birthday cakes?

2) Besides a tasty batter, what tools and equipment do you need to make a stack of pancakes?

Rewatch

Skip

Submit

Edpuzzle is my new favorite free tool that not only gives you the power to add your own questions to videos, but it allows you to edit and then post the videos as assignments for students so that they can answer the questions directly on their own computers. Push assignments out into Google Classroom or give students the class code to access the now-interactive video. You have the option of presenting in "Live" mode where you project and play the video while students answer questions on their own devices or you can just have them complete the assignment asynchronously with headphones on. Edpuzzle is also a great option for homework if you are trying to teach with a flipped classroom.

Taxonomy
Edpuzzle Curriculum MS



MULTIPLE CHOICE QUESTION

4. Binomial literally means:

2 names

3 names

[Rewatch](#)
[Skip](#)
[Submit](#)

Edpuzzle has premium paid options, however with a free account you can access all the basic editing tools and you have access to the pre-created curriculum. If you find yourself interested in using the interactive videos but not ready to edit your own, explore the already edited videos available for all grade spans in the Curriculum section. If you find one you like but want to add or edit something, you can make a copy of that video and make your own changes.

If you have any questions about using Edpuzzle, contact our resident Ed Tech TOSA Carrie Barnett at ext. 4247 or email her at cbarnett@sanjacinto.k12.ca.us.

YouTube Channel of the Month: Scientific American

https://www.youtube.com/channel/UC_xYMXx_-mAzheKyEtwCAQ

Many popular media outlets are breaking into the world of YouTube as a way to branch out from simply presenting content in print. The Scientific American video channel presents high quality phenomena in short snippets that can squeeze into any lesson. Video content ranges from simple and relateable experiences like what is the best way to snap a wishbone on Thanksgiving to the more complex topics like what happens when stars collide.





The important teaching shifts in the Next Generation Science Standards focus on presenting students with phenomena and facilitating their explorations and eventual applications of their learning. Browse these videos for great conversation starters to get your students talking about the small concepts in the big world.

<p>New Volcano Survey Accounts for Materials... 8.3K views • 1 year ago</p>	<p>Bonobos Prefer "Jerks" Over Helpers 7.6K views • 1 year ago</p>	<p>Looking Back at the Year in Science 3.4K views • 1 year ago</p>	<p>Spinccredible--How to Spin the Dreidel Longer 6.2K views • 1 year ago</p>	<p>Dwarf Mongooses Struggle to Fit In and Dig In 1.3K views • 1 year ago</p>	<p>2017 Breakthrough Prize in Physics Goes to Cosmos-... 3.4K views • 1 year ago</p>
<p>The Mad Science of Creativity 5.2K views • 1 year ago</p>	<p>Snap, Crackle, Whop--How to Win the Wishbone 15K views • 1 year ago</p>	<p>New Frizzy-Haired Orangutan Species 9.3K views • 1 year ago</p>	<p>Frog's Ribbiting Romance, Cosmic Speed Demons, and... 1.1K views • 1 year ago</p>	<p>The Pitfalls of Growing a Monster Pumpkin 2.5K views • 1 year ago</p>	<p>Neutron Star Collisions Create Gold 3.5K views • 1 year ago</p>
<p>The Secret Social Life of a Solitary Puma 3K views • 1 year ago</p>	<p>Wild Dogs Sneeze to Vote 3.8K views • 2 years ago</p>	<p>Robot Uses Exoskeletons to Float and Fly 2.1K views • 2 years ago</p>	<p>Cannibalistic Caterpillars, Bats Bonking into Windows, and... 1.2K views • 2 years ago</p>	<p>Orange Peel Jungle, Eclipse Chasers, and More: 60... 1.2K views • 2 years ago</p>	<p>How to Explore Otherworldly Oceans 2.1K views • 2 years ago</p>

NGSS Instructional Materials Adoption Update

<https://www.californiaeei.org/epc/>

On September 24th, our first official adoption committee meeting commenced with staff representatives from every school. Teachers from TK to high school were briefed on the Next Generation Science Standards and its components as well as taking a quick dive into the Ca. Environmental Principles and Concepts that are integrated into all adoptable programs. From there, teachers were lead through an activity that gathered and prioritized the features that our district would need from a science program. For example, elementary materials need to be available in Spanish to accommodate for the Hyatt World Language Academy and they also need to have flexible unit structure so that San Jacinto Elementary can align the science curriculum with their International Baccalaureate program.

The next few meetings will be dedicated to solidifying the district rubric that will be used to vet the programs and decide which ones best match our needs. Piloting is expected to begin at the start of the Spring semester, however all dates are subject to change depending on the needs of the committee.

During your PLC time, connect with your site representatives to provide any feedback you would like them to bring to the meetings. They have been tasked with relaying the information from the meetings back to you, however if you have specific questions I am also available to meet with your teams.

Figure 1.3. Building a House as an Analogy for Three-Dimensional Learning

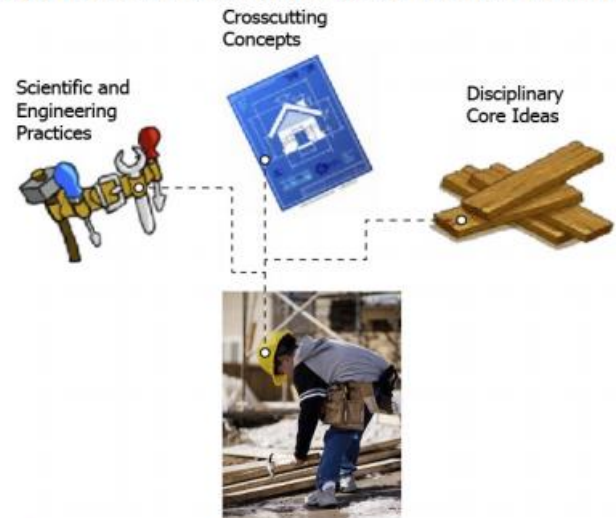
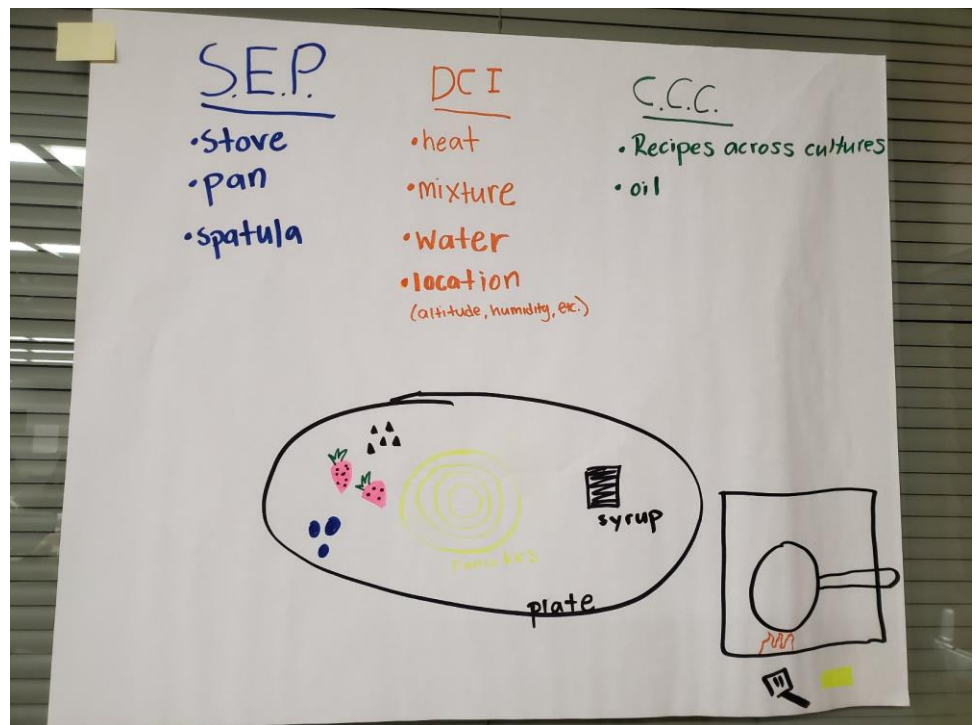
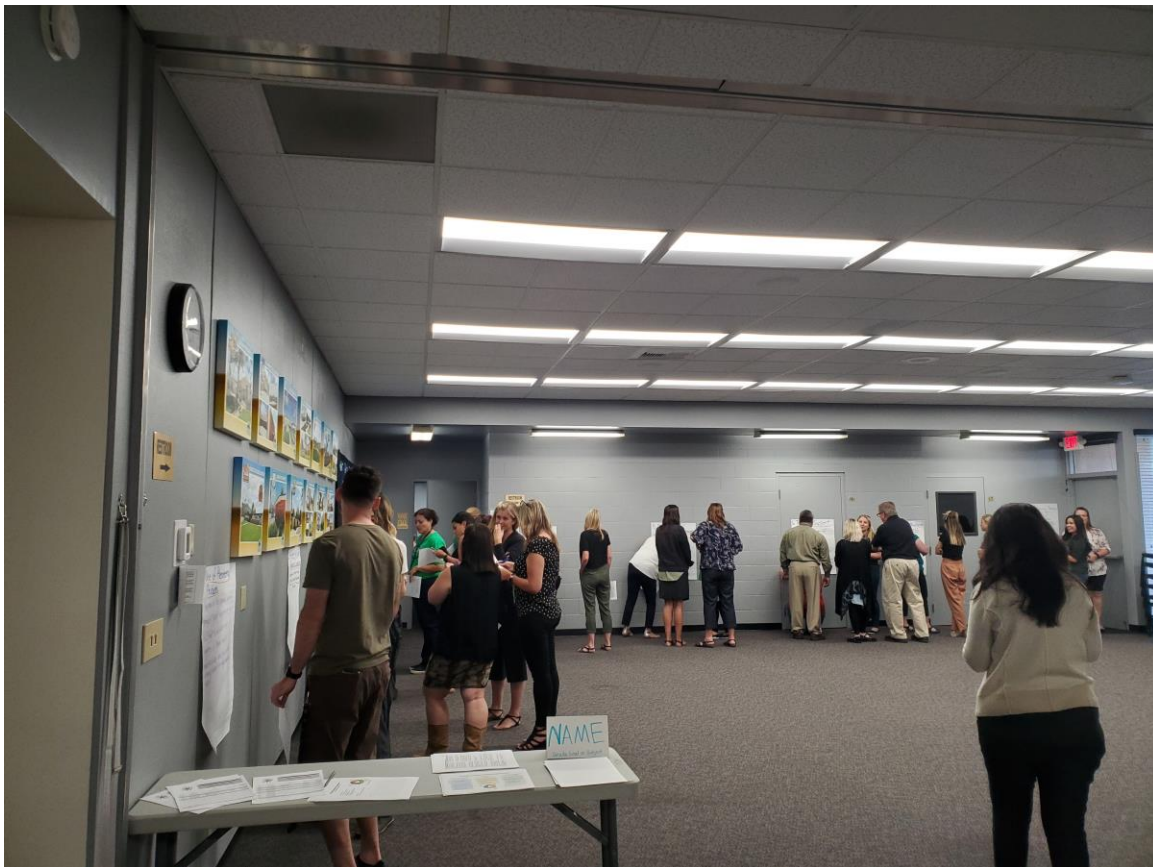
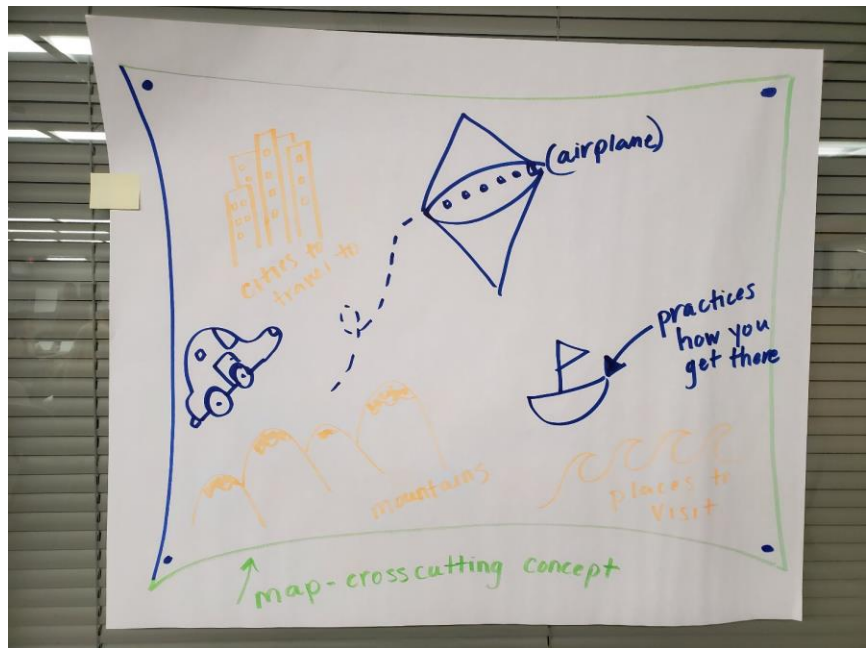


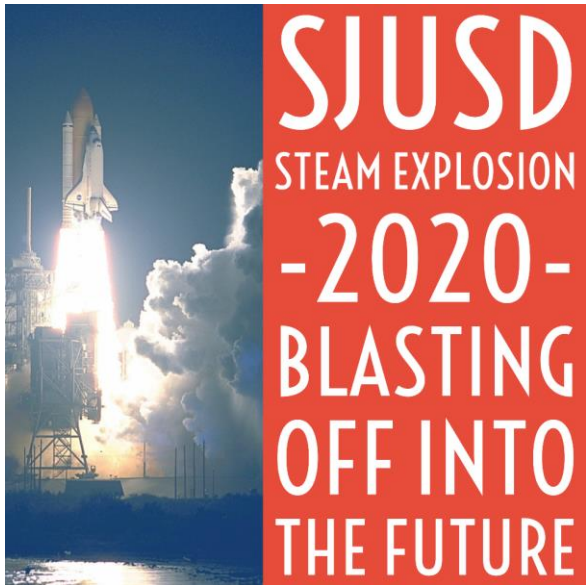
Diagram by M. Simani
[Long description of Figure 1.3.](#)



Our goal is to find the best program that works for our students and staff. The district is committed to facilitating a transparent process that honors the voices of our staff members from all school sites. The committee is working hard to define what "best" really means and should look like in the classroom. I have full faith that through this process we will come to a decision on a highly qualified science program!



STEAM Explosion 2020: Blasting Off Into the Future



PowerSchool SJUSD Resource Portal

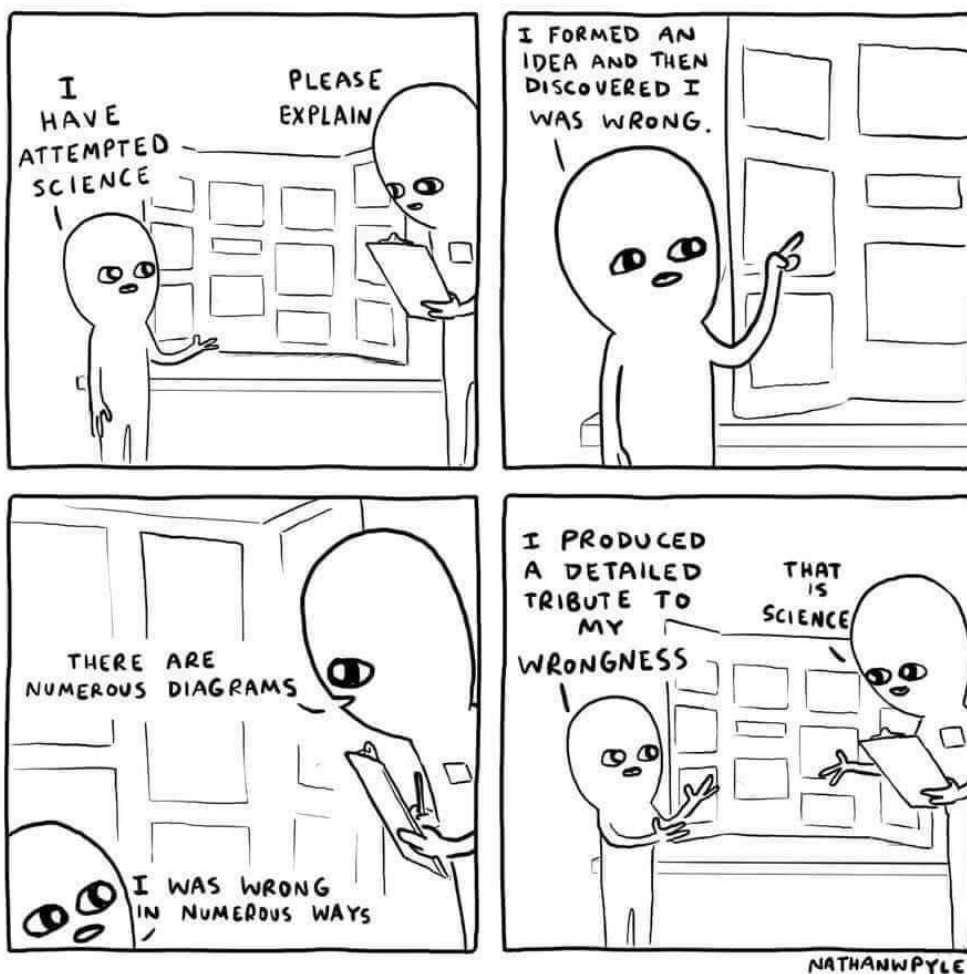
All year long, we are teaching our students the values of asking and answering their own questions. They have learned how to identify a problem and come up with an answer or solution. The science and engineering fair is the pinnacle of this learning process when students are given the opportunity to freely design an experiment or invention that answers their own questions. This is the event where students can become the scientist or engineer and show off their authentic evidence and experiences.

The STEAM Explosion highlights the achievements of our students in the realms of Science, Technology, Engineering, Art and Mathematics. At the STEAM Explosion, schools will display their top projects and awards will be given to the district winners that will compete at the county science and engineering fair. More than just exhibits, the event will have interactive stations for students and their families to tinker and explore. Activities from last year included slime-making, stargazing, geometric arts and crafts, and even a green screen photo booth hosted by our Ed Tech department. This year's festivities are shaping up to be just as exciting as last year with a few new surprises in store!



Leading up to the fair, students will need your support in designing their projects. While they are ultimately choosing their own topics, teachers still need to help facilitate the inquiry process in a logical sequence. When we talk about scientific inquiry rather than the scientific method, we reinforce the idea that science is not completely a linear process, but that scientists and engineers can go back and forth between questioning and testing as new information presents itself. Students should understand that it is ok to be flexible with the process as it suits the needs of your original question. It is even ok for students to learn that after learning something new, you can change or refine your question and test again until you are happy with it. This self-regulation is a key concept that students will struggle and grow with. Give your students enough time to spend on this process and maybe consider having check-ins during class time that let students review their projects with each other and collaborate with their peers.

To help you facilitate this learning process, some general hand outs and resources have been added to a dedicated PowerSchool page under the NGSS tab. Log in to PowerSchool and visit the NGSS section for more information. The documents listed on the page are intended to provide a clear and basic understanding of the aspects of conducting a science experiment or engineering project. These are in no way mandatory to give to the students if you have your own preferred resources.



Adventures of the Traveling TOSA

Site Visits and PLC Collaborations

A big goal of mine for this school year is to get out to visit the sites more often. It has been a pleasure so far to do some learning walks and take a temperature of the climate of the classrooms so that I can better support you. I have also had the opportunity to meet with teachers during their PLC time to do crash courses in the STEMscopes curriculum and demonstrated activities that interweave science into other disciplines. Consider this an open invitation to call on me to visit your classroom or team meetings to provide whatever support you need to turn our students into young scientists. Even if you are not sure what kind of support you would want, but you have an area of need that should be addressed, please reach out and let's collaborate on what will work best for you and your students.



Lesson Show Times! Have something great going on that you want to brag about? Maybe you have a lesson that you would like an outsider's view on. I would love to come and see what is happening in your class. I can then provide some personalized feedback for you to reflect on and work towards your professional learning goals.

Co-Planning & Co-Teaching Interested in seeing how to put together an NGSS three-dimensional lesson or are you looking for a fun project idea for a certain unit? I can always make time to collaborate. Want to do an experiment or dissection but need some extra supervision? I am happy to be your Vanna White, for example, and show off a dismembered squid to your students.

Demo Lessons Demo lessons could be a great option for you if you are interested in seeing how to run a lab activity or to see different instructional strategies at work. We would review the content, in person or digitally, and discuss how to prepare for the lesson. Then depending on your preferences, I can demonstrate an entire lesson or get it started and hand it over to you to facilitate. Lessons do not have to be with students. Demo lessons can be given to teams of teachers to simply observe or you can role-play as students.

NGSS, CA EP&Cs and STEMscopes Crash Course I am available after school and during PLC times to give tutorials on reading the standards, understanding the instructional shifts from the old to new standards, integrating the

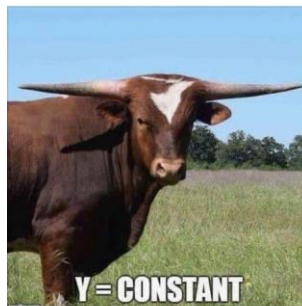
California Environmental Principles & Concepts, and of course walking your team through the curriculum and what it has to offer for your class.

Class Gardening & Aquaponics Just a special side note to offer, I have enjoyed starting and maintaining class gardens and gardening clubs in my own classes and I would love to share out and collaborate with your sites on integrating gardening into your curriculum. I will be presenting at the California Science Education Conference in San Jose and at the California STEAM Symposium in Anaheim on starting class gardens and aquaponics systems on a budget to increase access to students from low socioeconomic communities. I would be happy to bring my presentation to you and see if we can get our kids engineering and maintaining their own garden beds.

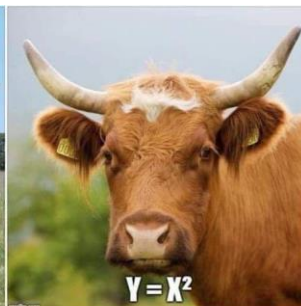




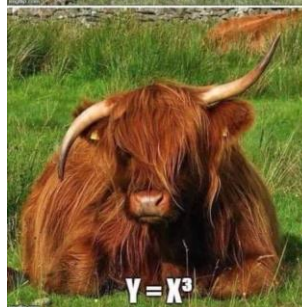
Why cats are not allowed in the operating room.



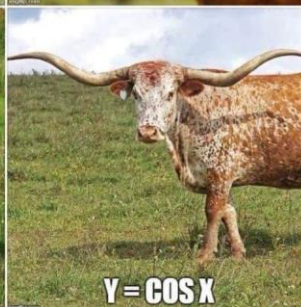
$Y = \text{CONSTANT}$



$Y = X^2$



$Y = X^3$



$Y = \cos X$



SALEM
@salemmitchell

Rihanna is such a powerhouse.



mari
@marielaparcio_

MITOCHONDRIHANNA.

The Difference Between a Flask and a Beaker



Contact and Support

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PowerSchool Site: <http://bit.ly/SJUSDscience>

Website: <https://thefishnerd.weebly.com>