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# Taking Science to Hart for the Next Generation!

— October 2, 2019 —  
A School Board Update

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Julie Huffman, Erica Hardbarger and Dave LeBarron

# Districtwide Implementation Continues!

- 7th, 8th, and 9th are all in their third year of full implementation. Chemistry is in their first year of full implementation!
- The Biology Reader (pilot) was distributed to all 9th grade students in August.
- Our Science TOSA is continuing to offer custom -designed collaborative PD opportunities.
- Site science chairs ordered their consumables from an e-commerce site at the end of last year. Delivery was smooth. All Chemistry supplies are being provided by the district this year.
- Chemistry and Physics are going through curriculum feedback and revision.



# NGSS Physics is in the works!

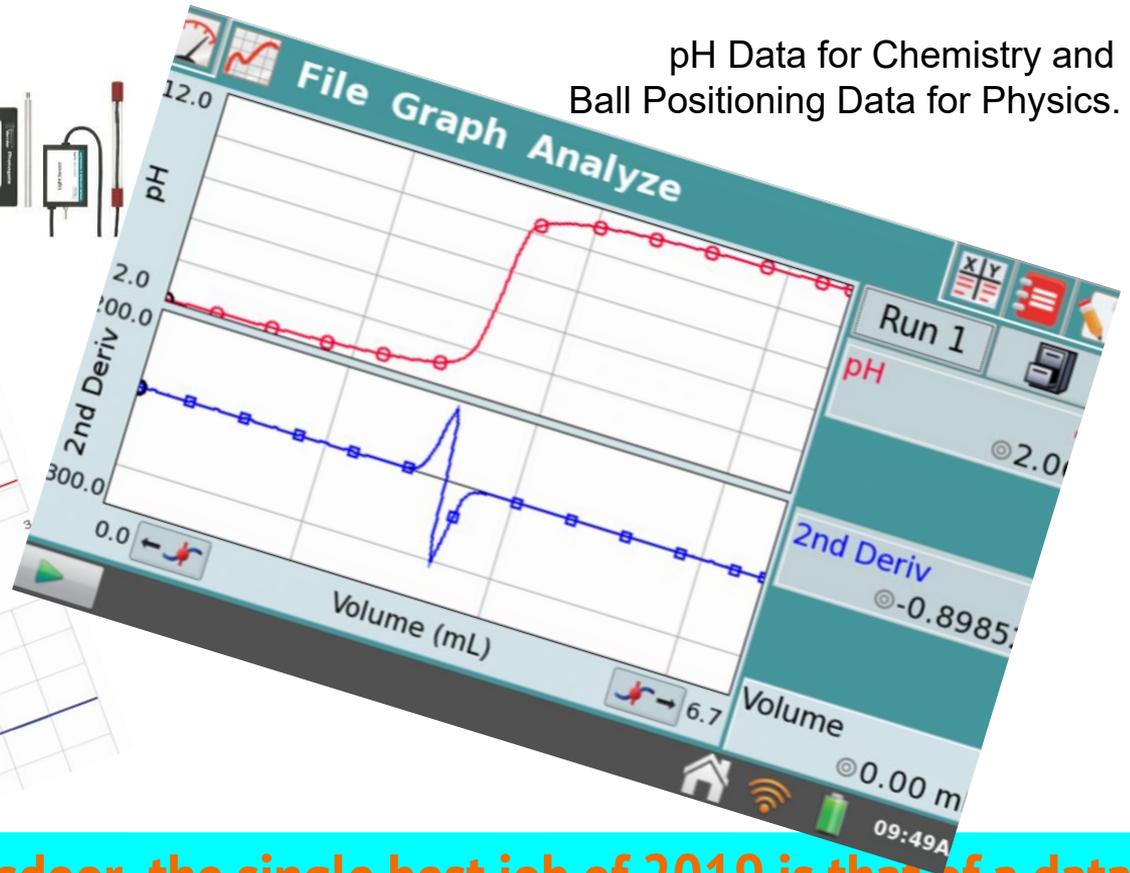
- Physics is piloting with six teachers on the team.
  - Six regular education, 5 from our comprehensive high schools and one from Bowman!
- Curriculum is undergoing feedback and revision **prior** to district rollout.
- Physics in the Universe curriculum and professional development will be presented at the 3rd annual Summer Symposium in June of 2020.
- District-wide implementation to begin in Fall of 2020 with supplies provided.
- Supplementing our own original lessons with Active Physics.
- Physics CSET Training is being offered to all junior and senior high Science teachers. Several have expressed an interest.

# Vernier Probewar



pH Data for Chemistry and  
Ball Positioning Data for Physics.

Physics and Chemistry  
are ushering in  
awesome opportunities  
for helping “all” of our  
students get prepared  
for a brilliant future.



According to LinkedIn and Glassdoor, the single best job of 2019 is that of a data scientist. With a Median Base Salary of \$130,000, a high job satisfaction and plentiful job openings.

*“Hi all,  
Keep up the  
good work! My  
students this year  
are having more  
fun than last  
year's crop, and I  
think the  
curriculum you've  
made is  
responsible.*



*I've got kids who have probably never bothered to examine a graph in their lives hooking up the Vernier equipment to chromebooks and analyzing the output with actual interest in their eyes! Sometimes they'll even argue about why the graph looks the way it does. Good stuff!”*

**-Brandon Maupin, Canyon High School**

# What is the Biology Reader? Why did we ne

- We needed more literacy support for our NGSS Biology curriculum

ISST2b Pre Reading Anticipation Guide 2: Moving Water

- Fill out the Agree/Disagree columns as you read and/or participate in class activities.
- After the reading/activities return to your original agree/disagree ratings.
- Use evidence from the text to clarify why your initial agree/disagree was right or wrong.

Statement	Agree/Disagree	Were you right? Y/N	Reason/s you were right or wrong...
1. High gradient streams shape Earth's surface more than low gradient streams do.			
2. An oxbow lake is actually an older stream.			
3. Flooding is a devastating natural event that should always be avoided.			

- The publisher provides the ability to design materials to work in tandem with our curriculum

- BSCS (Biological Sciences Curriculum Study) AND Earth Comm materials serve as the "backbone" of the Reader

- Allowed us the ability to provide strategies centered around the 3-dimensions

- Tailored to the needs of all of our students

- Is editable from year-to-year

## High gradient streams

High gradient stream: a small or large flow of water in natural channels on a steep slope



<https://image.shutterstock.com/z/stock-photo-mountain-waterfall-like-a-piece-of-white-cloth-floating-down-115463558.jpg>

Oxbow lake: a crescent-shaped body of standing water situated in the abandoned "U" channel (cut-off) of a meander after the stream formed a neck cutoff and the ends of the original bend were plugged up by the sediment



<https://image.shutterstock.com/z/stock-vector-oxbow-lake-formation-vector-diagram-417843558.jpg>

Low gradient stream: a small or large flow of water in natural channels on a gentle slope or flat surface



Piacenta Canyon State Park, April 2015 (photo credit - E. Harbarger)

Flooding: occurs when water spills over its natural channel covering a normally dry land area with a large amount of water



Bouquet Creek, March 2015 (photo credit - E. Harbarger)

# An email this week from the principal NGSS framework writer for CA!

“Would you be willing to share any materials from Physics of the Universe and Chemistry in the Earth System? I’m working with some other districts and need some examples of great things that other people have put together.” Boom.



“Find a group of people who challenge and inspire you, spend a lot of time with them, and it will change your life forever.”

— Amy Poehler

In parting, we would like to extend a formal invitation to any and all of you to contact us for a tour of some NGSS classrooms.

Please contact:

Dave LeBarron ([dlebarron@hartdistrict.org](mailto:dlebarron@hartdistrict.org))

or

Julie Huffman ([jhuffman@hartdistrict.org](mailto:jhuffman@hartdistrict.org))

at your earliest convenience!