Teaching Transformed:

Voices from the Field

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Central School District

Chappaqua Central School District

Facilitators: Mary Devane & Justin Olive

Professional Development Team

@MaryDevane2 @JustOlive_Ed

The COVID Crisis

The Instant Paradigm Shift!

When schools were forced to turn to remote and hybrid learning, the framework of teaching and learning was completely turned on its side! We were forced to adjust, rebuild, and adapt seemingly overnight.

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The 3 Ts

The continuum...

Triage

In the name of continuity, how can we urgently create a level of stability for our students and their learning?

Transition

What are the vulnerabilities that exist in this new approach, and what changes can we implement to overcome them?

Transform

How must we change in a post-pandemic world, and which practices will be incorporated into the new educational paradigm from here on forward?

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Triage

A Staff Developer's view...

Triage

Find stability!

We can't have summative assessments and/or quizzes you can "cheat" on any longer. Now what?

CANVAS

Assessment

Communication

I can't verbally explain all the directions to my students in class anymore. Now what?

I can't facilitate class discussions like I used to. Now what?

padlet

Pedagogy

Stabilize

Collaboration

I can't facilitate small group work or have individual conferences like I used to. Now what?

zoom

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Leverage Learning Management Systems and Digital Tools!

Transition

Voices from the Field...

Alex Lichorat

Alex is an 8th Grade Science Teacher at Seven Bridges Middle School in the Chappaqua Central School District.

@alexthe5cience

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How to facilitate small group work with students in different locations?

Using Newton's Laws to Save Halloween From Covid-19

Unit 1 Project

8th Grade Science 2020-2021

Saving Halloween From Covid-19!

Applying Newton's Laws of Motion to design a safe and effective way to prevent Covid from ruining Halloween trick-or-treating!

The *GOUL* (oh wait, sorry!... the *GOAL*)

Apply Newton's 3 laws of motion to engineer a contactless, socially distant candy dispensing contraption for one group member's house on Halloween!

The Engineering Design Process

Group Members	Member's Role
	Project Manager
	Materials Manager
	Communication Director
	Covid Safety Enforcement

Scouting your locations!

EVERY MEMBER OF THE GROUP: Ask someone to take a photo of you at your house in the location where you could potentially set up your Halloween candy distribution. (You need to be in the photo!)

Insert your photos below:

Project Requirements!

- At least 3 different types of Halloween candy must move a distance of at least 3 meters *unassisted* by any person after an initial applied force
- No living thing can touch the candy or its wrapper except for the Trick-or-Treater it is being delivered to (even with gloves on) - any applied force must be contactless

Project Data, Calculations and Force Diagrams

- height, length of path from origin to trick-or-treater), the mass of the candies, and how long it takes the candy to travel the whole way.
- Calculate the candy's weight, acceleration in your contraption, and the amount of force needed to get each of the 3 candies from the origin to the trick-or-treater's container. Show your work - all formulas, substitute measurements with units, solve then label your calculations!)
- Create a force diagram that shows the types of forces (push/pull) and who exerts each force (Earth, *Dracula*, etc.) on the candy *at the origin* and when it reaches the Trick-or-Treater.

Using Newton's Laws to Save Halloween From Covid-19

PLAN Draw a labeled diagram or design sketch. List all of the materials we will need and assign the steps we will to take – who will do what?

Whose house will we build this candy-contraption for?

Meadow's House

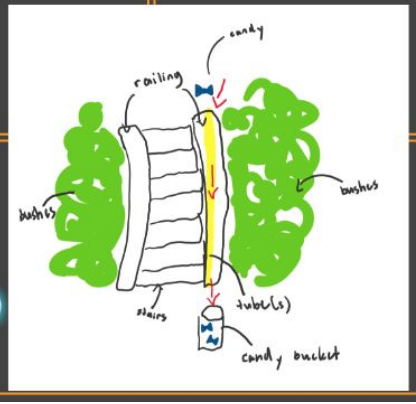
What materials will we need?

Click HERE to request materials

- 3 rolls of wrapping paper
- Tongs
- Bucket
- Tape/glue gun
- Duck tape
- Candy (small)
- Paints (green, black, orange, purple) OR toilet paper and fake blood

Who will do what to get us to our goal? (List names + job)

Rebecca - get a hook by Monday
Rebecca - submit materials request
Meadow - brainstorm chute idea
Eleanor - brainstorm zipline idea



CREATE Time to follow our plan and create something! Should we start with a model or prototype or go full scale right away? Let's build it, test it, collect data and observe its effectiveness.


side


front


demonstration

Observations – What works?

- The tape holding together the three tubes (we could also use hot glue on final product) worked, it did not fall apart and the candy fell through smoothly.
- The 3 tubes (represents 1 meter each) distributed the candy's weight well and candy went through all the way.

Observations – What doesn't?

- The tubes were too fragile and nothing was on the sides to support it - causing the tube to fall over.
- The tube was tilted at a high angle, without any support beams guiding it, causing the candy to go at a very fast acceleration, which can trouble the trick or treaters.

IMPROVE Let's modify our design to make it better(redi… test it out. We'll observe, collect data, and repeat until we've …

What will we change? Why? (How are Newton's Laws involved?)

We are going to deconstruct our chute to flip one of the tubes around. This is because one tube is wider than the other, so we needed to use scrunched up duck tape to fill in the gaps. This duck tape was making the candy get stuck, so we flipped the tube so the tape was facing the opposite direction. This is related to Newton's Law of Inertia because the duck tape was an unbalanced force, stopping the motion of the candy.

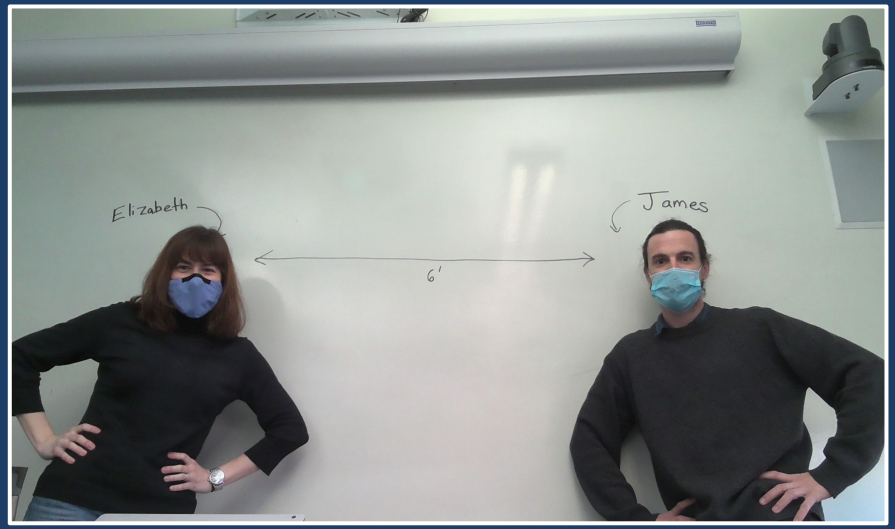
Insert … design … m or … here


DATA and CALCULATIONS, Part 1
A. Weight of Candy
Type of Candy | Mass (kg) | Gravity (m/s/s)
3 Musketeers | 0.017 | 9.81
Hershey kiss | 0.005 | 9.81
Reese's | 0.009 | 9.81
Milk duds | 0.015 | 9.81
Whoppers | 0.008 | 9.81
Almond Joy | 0.013 | 9.81
York | 0.016 | 9.81
Kitkat | 0.007 | 9.81
B. Candy Distances
Distance Candy Travels (m) | 3 meters
Location of Candy | Height (m)
Origin (where you are)
End (where Trick-or-Treater is)
Saving Halloween from Covid-19
DATA and CALCULATIONS, Part 2
C. Acceleration of Candy
Distance (m) | Time is takes (s) | Speed (m/s) | Acceleration (speed/time)
meters | 1.95 seconds | 1.54 m/s | 0.79 m/s/s
meters | 1.62 seconds | 1.85m/s/ | 1.14 m/s/s
ter | 1.92 seconds | 1.56 m/s | 0.81 m/s/s
hits the Trick-or-Treater with - Calculations
CANDY TYPE: Whoppers
Force=(Mass)(Acceleration)
Force= (0.008kg)(1.14m/s/s)
Force= 0.00912 Newtons
CANDY TYPE: KitKat
Force = (Mass)(Acceleration)
Force = (0.007kg)(0.81m/s/s)
Force = 0.00567 Newtons
Force
Acceler-ation
YOUR GROUP NEEDS TEACHER APPROVAL TO COMPLETE THIS PAGE
I CURSE YOU

Elizabeth and James

Hi Everyone,

We are 11th grade APUSH teachers in the Social Studies Department at Horace Greeley High School in the Chappaqua Central School District.



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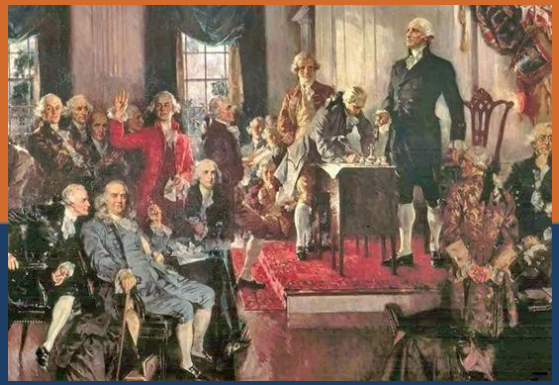
How can students continue to engage in research and discussion-rich PBLs while in a hybrid/remote setting?

Constitutional Convention



To what extent did constitutional compromises allow for effective governance, the growth of republican ideals & the protection of inalienable rights?

CAUCUS:

- Students placed into **FACTIONS** (Federalist, Anti-Federalist, etc.)
- **CAUCUS:** Students move to different groups in a virtual space
- TASK: Students **REWRITE** a section of the Constitution based on their Constitutional compromises

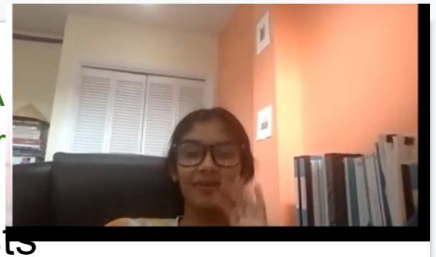
I.) Introduce and Preparation Day: You will research your faction's philosophies and priorities. Use this SMRT Chart to collect your thoughts.

II.) Debate Days

Day 1 of Debate: Caucus by Faction; Your faction can send representatives to another faction (message me and I will send you to the correct breakout room) . The goal is to build coalitions and find compromises on the three issues.

- Focus: Argumentation & Persuasion

Issue 1: Representation: The Senate, State Suffrage, and Who Should Make up the Legislature. *Like the House of Representatives, should the Senate also be based on equal representation for each state? How do we choose who becomes a member of the Senate? Should each class/gender/race/educational background have equal representation? Could a compromise be made about the last question?)*



Joint Proposal by: Lansing (Emmy), Martin (Lauren), Yates (A
(Nyssa), Mercer (Matthew); Rutledge (Janice), Dickinson (Alexandr
Ellsworth (Addy), Williamson (Marko).

Faction(s): Confederalists Joined by Moderate Nationalists

Proposal Issue Overview Representatives should represent the sentiments of the people

Proposal Details: (bullet point)

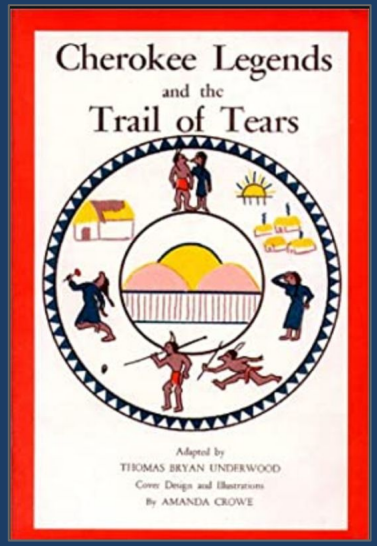
- 1 year terms
- More than 130 representatives for the lower house
- 1 rep for 20000 inhabitants
- State legislators to pick senate as the states should act as small republics therefore getting to choose who chooses the senate
- Equal representation of states in the senate

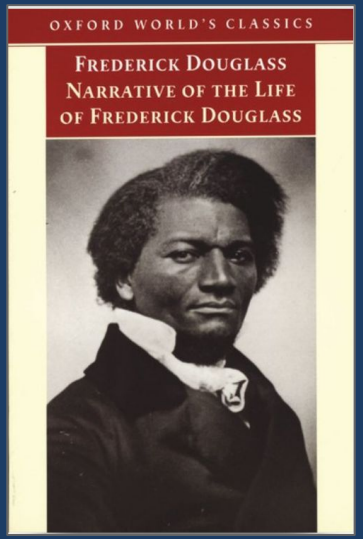
Agreement with Moderate Nationalists and Moderate Confederalists
1 rep for 30,000 citizens, State legislature elects senate, states get to choose if they have slavery

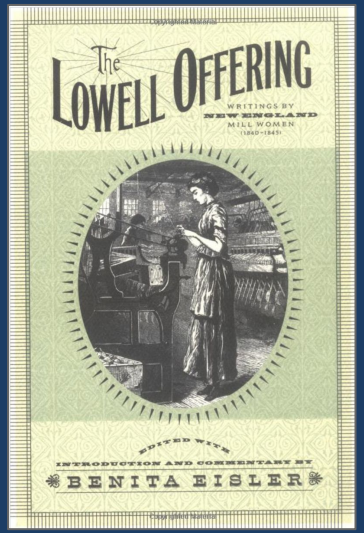
Full Convention VOTE: 15 yea; 6 nay

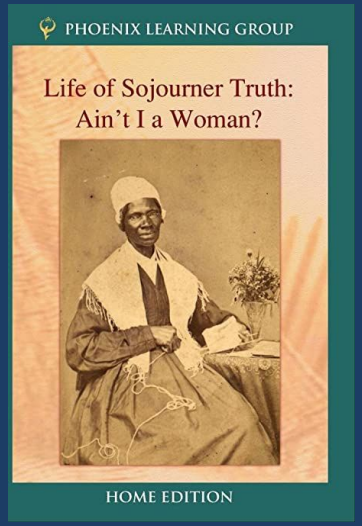
From Text-Based Discussion to Inquiry-Based Electronic Fishbowl

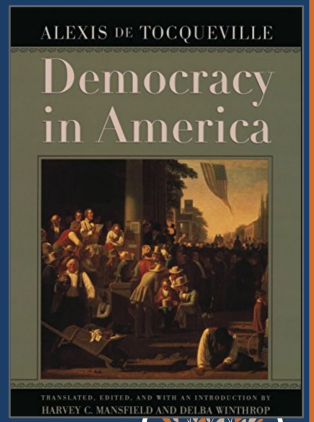
A remote/hybrid twist on the classic Fishbowl Seminar.
Focus reading of texts on inquiry questions.





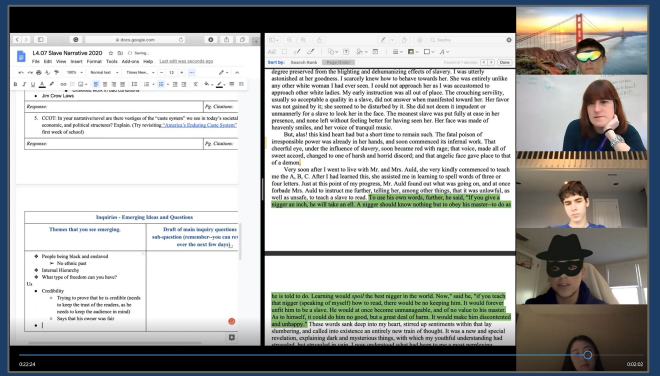






Students prepare for the fishbowl in breakout groups of four by discussing all guided questions. They also pick one person to be an "expert" on one of the four questions during the fishbowl.

- ➢ **Breakouts are all unmuted, and every student contributes to the discussion!**
- ➢ **SEL - let them wear hats!**



Fish Bowl Prompts

1. CCOT - Analyze the evolving relationship between the U.S.Government and the First Nations over time. Explain. Cite documents. (remember to use the docs and also the graphic on the next page of this doc.; also, note slide 26, 4.09) *Image of slide at the bottom of doc.*
Response: | Citations (which docs.?):
2. POV and Intended Audience: What types of varied perspectives have you encountered in the reading? How does who the author is affect their perspective? Explain, use text of docs. to do so.
Response: | Citations (which docs.?):
3. How has reading these documents altered your depth of understanding about the mistreatment of First Nations peoples? Explain. Cite documents.
Response: | Citations (which doc.?):
4. Outside information - Think deeply about major themes and historical / social theories we have studied this year. Apply these to your readings, making connections to the text. Be sure to cite evidence. (Think - republican ideals, Republican Motherhood, Market Revolution, the Second Great Awakening, Transcendentalism, early reform movements, concept of democratization, *othering*, intersectionality, Christian Liberty, Capitalism, Jeffersonian Democracy)
Response: | Citations (which doc.?):

After the pre-fishbowl breakouts, students come back as a whole class and begin the fishbowl

Question 2 Experts

Outside the fishbowl students comment in chat, focusing on inner circle discussion as well as responding to peers' comments in chat.

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Question 1 Experts Discuss In Fishbowl

Question 3 Experts

Question 4 Experts

Outside the fishbowl students comment in chat, focusing on inner circle discussion as well as responding to peers' comments in chat.

Fishbowl Chat

From Rebecca Blum to Everyone: 10:09 AM
In a sense, the upper class women were meant to just stay inside and help their children, while the middle/lower classes were the ones who had the double work added on.

From Noah Lim to Everyone: 10:09 AM
in the Zinn text, it mentioned how enslaved women were at a double disadvantage because they experienced discrimination for their gender and racial roles

From Aniruddh Dhanawade to Everyone: 10:10 AM
Upper class women also probably didn't want to go work long hours in factories, they probably thought that staying home and taking care of the kids would be a better use of their time.

From Mark Sallay to Everyone: 10:10 AM
Upper class women lives didn't really change to much, they still got live a lavish life while the middle and lower class had to work more and in worse conditions

From Me to Everyone: 10:10 AM
Good, Noah. That gets to the heart of intersectionality

Transformation

Libo Valencia

Libo is a Mathematics Teacher at Horace Greeley High School in the Chappaqua Central School District and an Adjunct Lecturer at CUNY Lehman College

@MrValencia24

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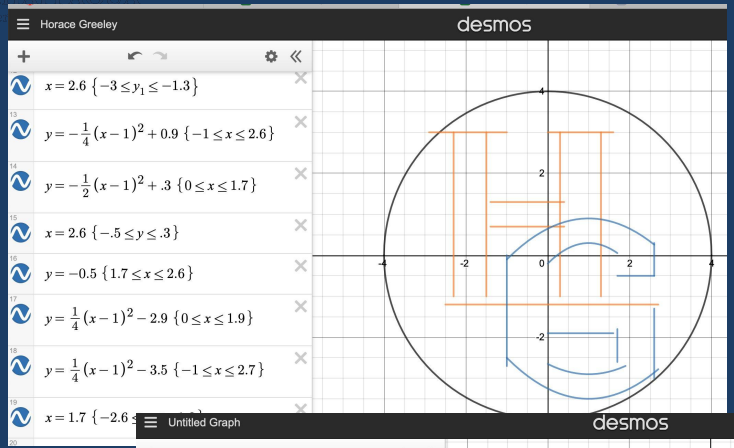
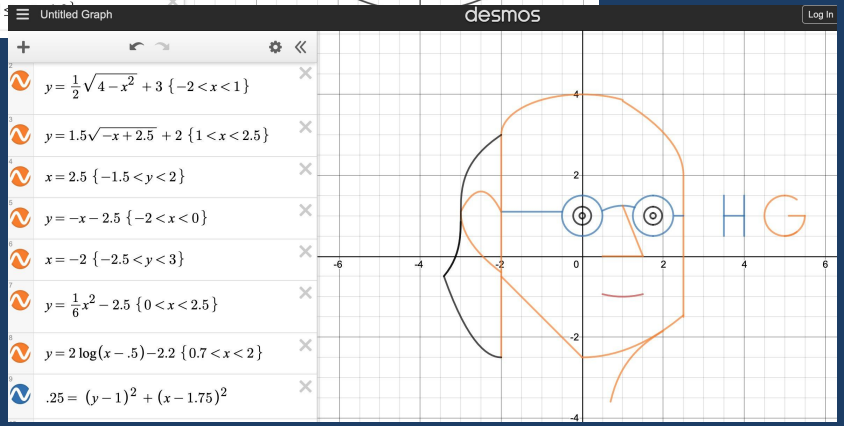
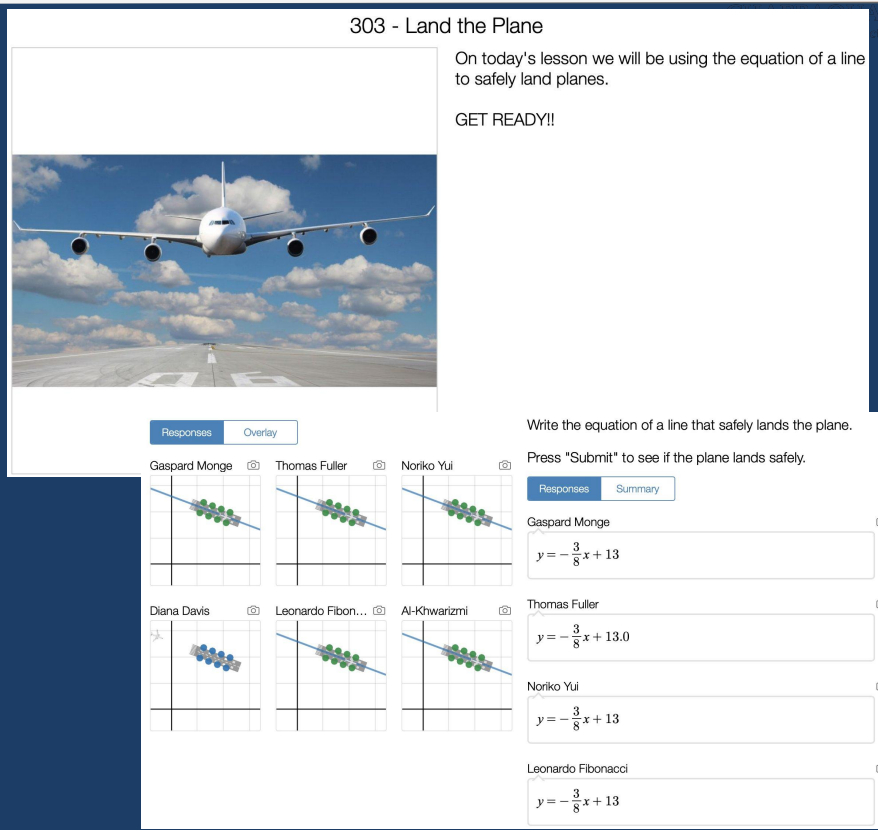
How to best engage students in mathematics while in the Hybrid model?

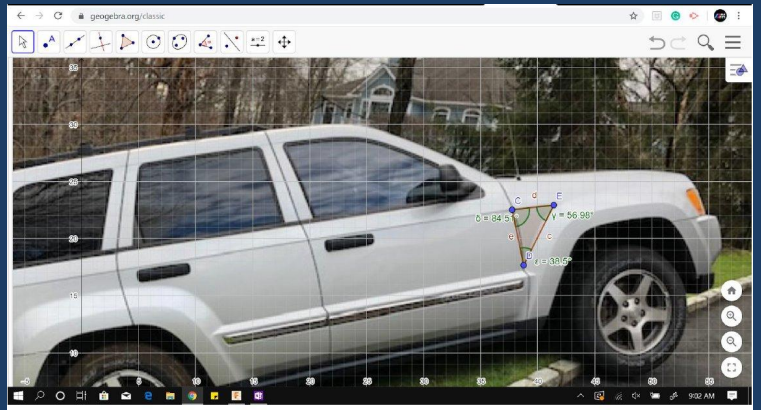
Desmos

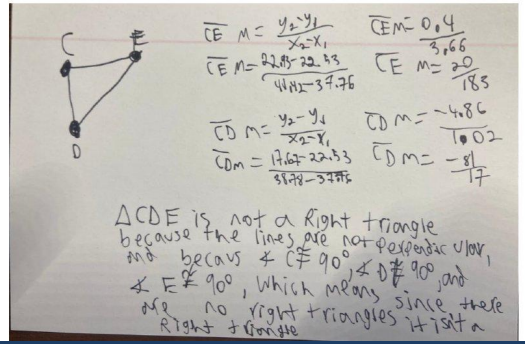

Horace Greeley
desmos
$x = 2.6 \{-3 \le y_1 \le -1.3\}$
$y = -\frac{1}{4}(x-1)^2 + 0.9 \{-1 \le x \le 2.6\}$
$y = -\frac{1}{2}(x-1)^2 + .3 \{0 \le x \le 1.7\}$
$x = 2.6 \{-.5 \le y \le .3\}$
$y = -0.5 \{1.7 \le x \le 2.6\}$
$y = \frac{1}{4}(x-1)^2 - 2.9 \{0 \le x \le 1.9\}$
$y = \frac{1}{4}(x-1)^2 - 3.5 \{-1 \le x \le 2.7\}$

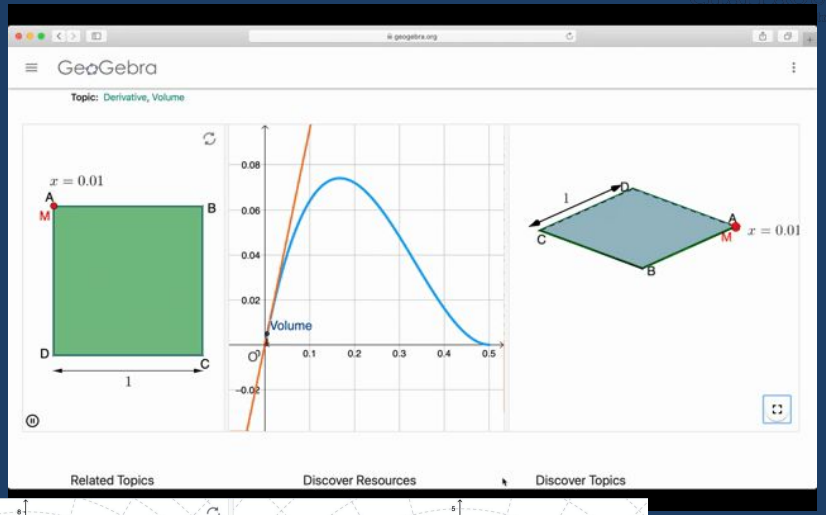

Untitled Graph
desmos
Log In
$y = \frac{1}{2}\sqrt{4-x^2} + 3 \{-2 < x < 1\}$
$y = 1.5\sqrt{-x+2.5} + 2 \{1 < x < 2.5\}$
$x = 2.5 \{-1.5 < y < 2\}$
$y = -x - 2.5 \{-2 < x < 0\}$
$x = -2 \{-2.5 < y < 3\}$
$y = \frac{1}{6}x^2 - 2.5 \{0 < x < 2.5\}$
$y = 2\log(x-.5) - 2.2 \{0.7 < x < 2\}$
$.25 = (y-1)^2 + (x-1.75)^2$
H G

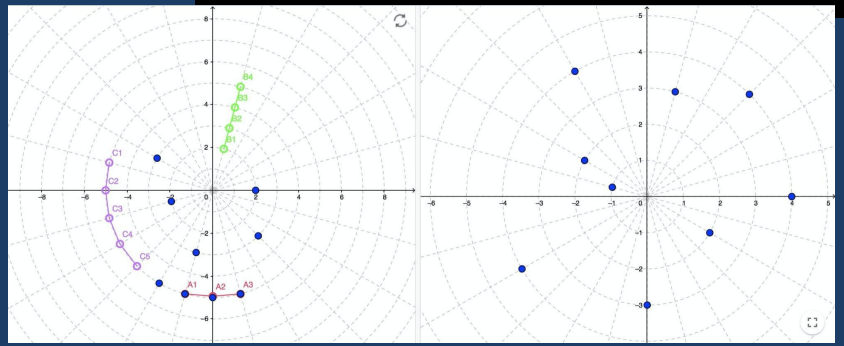

303 - Land the Plane
On today's lesson we will be using the equation of a line to safely land planes.
GET READY!!
Responses
Overlay
Gaspard Monge
Thomas Fuller
Noriko Yui
Diana Davis
Leonardo Fibon…
Al-Khwarizmi
Write the equation of a line that safely lands the plane.
Press "Submit" to see if the plane lands safely.
Responses
Summary
Gaspard Monge
$y = -\frac{3}{8}x + 13$
Thomas Fuller
$y = -\frac{3}{8}x + 13.0$
Noriko Yui
$y = -\frac{3}{8}x + 13$
Leonardo Fibonacci
$y = -\frac{3}{8}x + 13$

Geogebra


geogebra.org/classic


ΔCDE is not a Right triangle
because the lines are not perpendicular,
and because ∠C ≠ 90° ∠D ≠ 90°, and
∠E ≠ 90°, which means since there
are no right triangles, it isn't a
Right triangle


GeoGebra
Topic: Derivative, Volume
x = 0.01
Volume
Related Topics
Discover Resources
Discover Topics



Real Life

Objective: Identify and model points, lines, and planes

Defense

Players → Points

Field → Plane

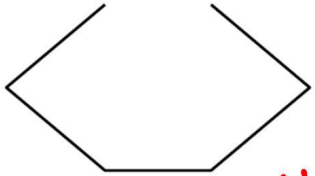
Mid line → Line Segment

Defense: Collinear

Ex 1: Tell whether the figure is a polygon. If it is a polygon, name it by the number of sides

a) 

Yes
Octagon

b) 

No

c) 

NO

d) 

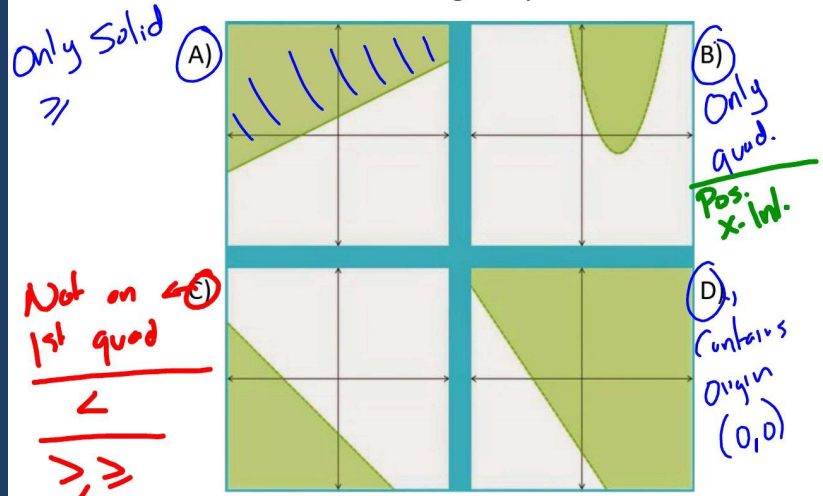
Yes,
Pentagon

WODB?

Mr. Valencia Adv PreCalc & Calc

Objective: Graph complex numbers

Do Now: Which one does not belong? Why?



Andrea Schaber

Andrea is a Library Media Specialist for grades K-4 at Westorchard Elementary School in the Chappaqua Central School District.

@AndreaSchaber

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How to best incorporate inquiry based learning through hybrid instruction?

The Process

Election Inquiry

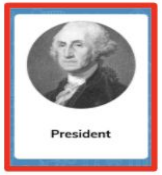
Step 1: Pick one topic to research!
What are you wondering about?

Username:
westor

Password:
school

Pebble Go

From our last session together:



New Topics:

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The Process

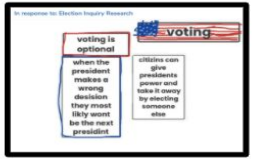
Election Inquiry

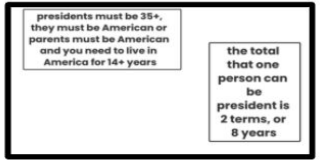
Step 2: After you have done your research, post something you have learned about your topic to SeeSaw!

SEESAW

TAP ME!

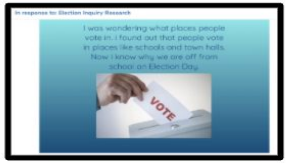
Click on the SeeSaw image to view the assignment. If you need instructions on how to locate and upload the activity, tap on the little yellow icon above!

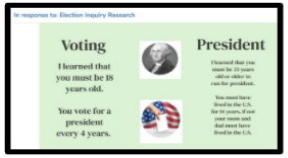




Activate prior learning

Some examples of student work from our last session!





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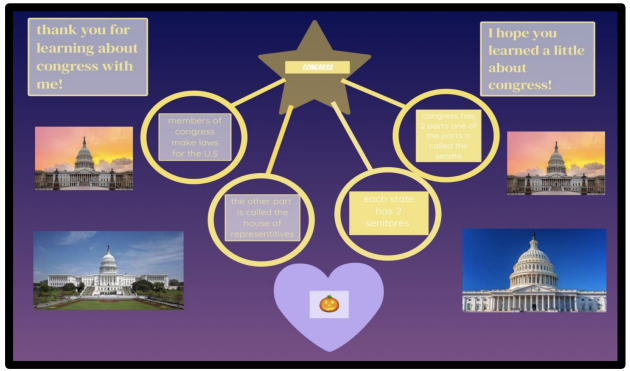
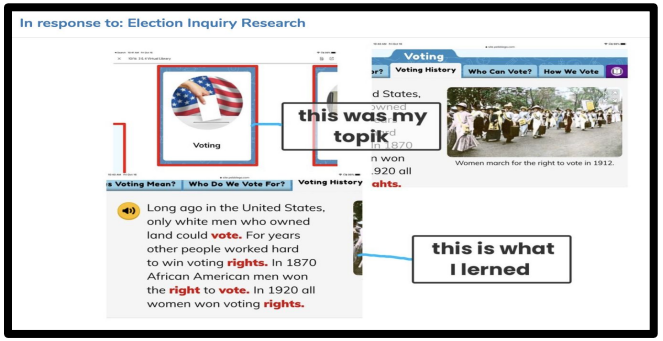
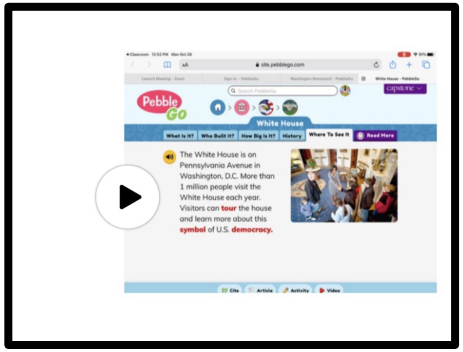
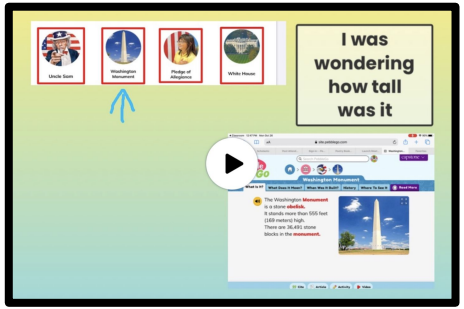
Student Work



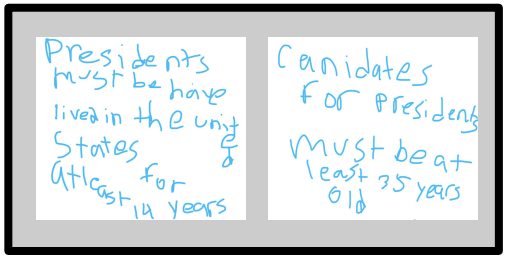


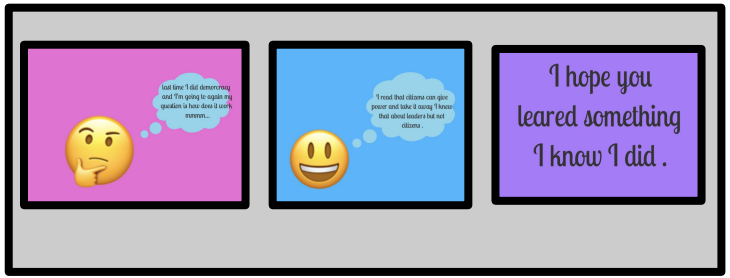
Student Work





The history of voting	who can vote	who do we vote for	what does voting mean
long ago in the united states only white man who owned lands could vote. for yearys people worked hard to win voting rights. in 1870 african american men won the rights to vote. in 1920 all women won voting rights.	The u.s. goverment and the state make the rules for voters. Today people must be u.s citzens to vote. the must be at. least 18 years old. in most states citzens must register to vote.	citizens elect leaders for the national ,state, and city goverments leaders serve terms lasting two, four, or six years. in the united states the president leads the whole country. citizens elect a president every four years.	voting makes people part of the goverment. in a democarcy, people have a right to choose there leaders. on election day, citizens vote to choose leaders for their contry.





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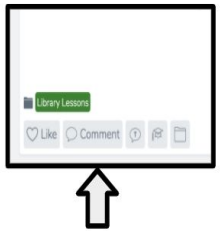
The Process

Election Inquiry

Step 3: Once you have posted something you learned from your inquiry, find a classmate's post and comment on what they have learned!

SEESAW



Nice Words

Are you stuck for a comment? Try one of these:

Wow! I didn't know that...

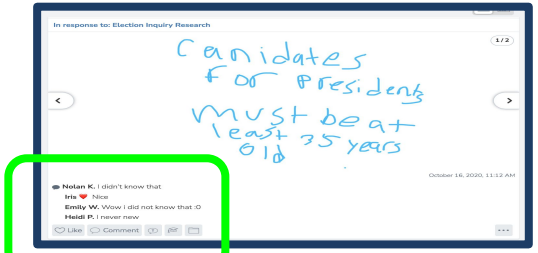
I like the way you...

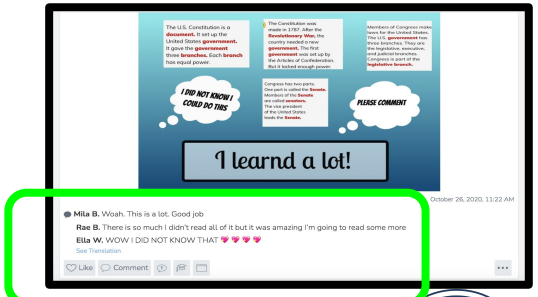
This post makes me think about...

Helpful Tips

Digital Citizenship Tip:

Remember to keep your comments kind, respectful, and appropriate!





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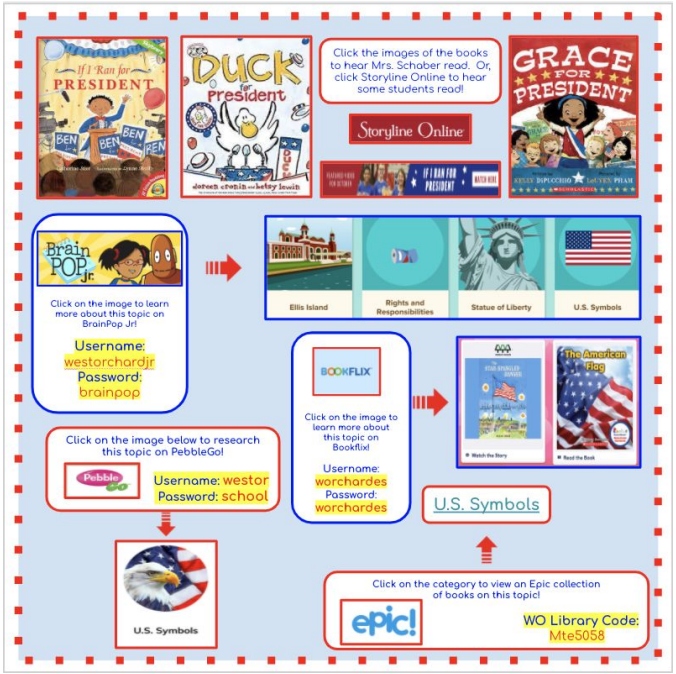
Hybrid Inquiry Choice Boards

Grade 2



Grades 3-4

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Collect, Reflect, Next Steps...

Link to Slides

Inquiry Work

US Government
and
US Symbols

Grades 2-4
Andrea Schaber

Link to Student Work

US Symbols Inquiry	US Government/Election Inquiry	US Government/Election Inquiry
2nd Grade	3rd Grade	4th Grade
Student Inquiry Example 1	Student Inquiry Example 1	Student Inquiry Example 1
Student Inquiry Example 2	Student Inquiry Example 2	Student Inquiry Example 2
Student Inquiry Example 3	Student Inquiry Example 3	Student Inquiry Example 3
Student Inquiry Example 4	Student Inquiry Example 4	Student Inquiry Example 4
Student Inquiry Example 5	Student Inquiry Example 5	Student Inquiry Example 5
Student Inquiry Example 6	Student Inquiry Example 6	Student Inquiry Example 6
Student Inquiry Example 7	Student Inquiry Example 7	Student Inquiry Example 7
Student Inquiry Example 8	Student Inquiry Example 8	Student Inquiry Example 8
Student Inquiry Example 9	Student Inquiry Example 9	Student Inquiry Example 9
Student Inquiry Example 10	Student Inquiry Example 10	Student Inquiry Example 10
Student Inquiry Example 11	Student Inquiry Example 11	Student Inquiry Example 11
Student Inquiry Example 12	Student Inquiry Example 12	Student Inquiry Example 12
Student Inquiry Example 13	Student Inquiry Example 13	Student Inquiry Example 13
Student Inquiry Example 14	Student Inquiry Example 14	Student Inquiry Example 14
Student Inquiry Example 15	Student Inquiry Example 15	Student Inquiry Example 15

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Take-Aways

I learned that…

I realized that...

Q&A