



**“Dedham Public Schools is a leader in
Massachusetts in deployment and integration of
technology to support teaching and Learning”**

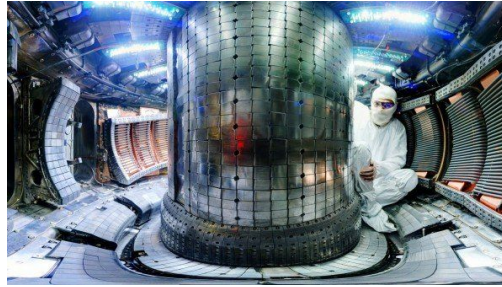
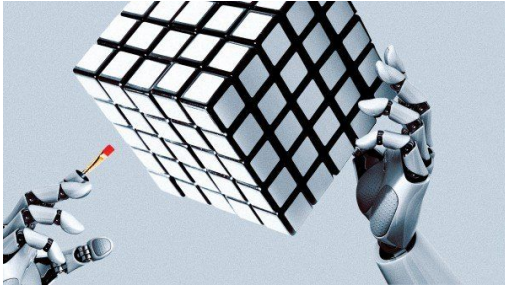
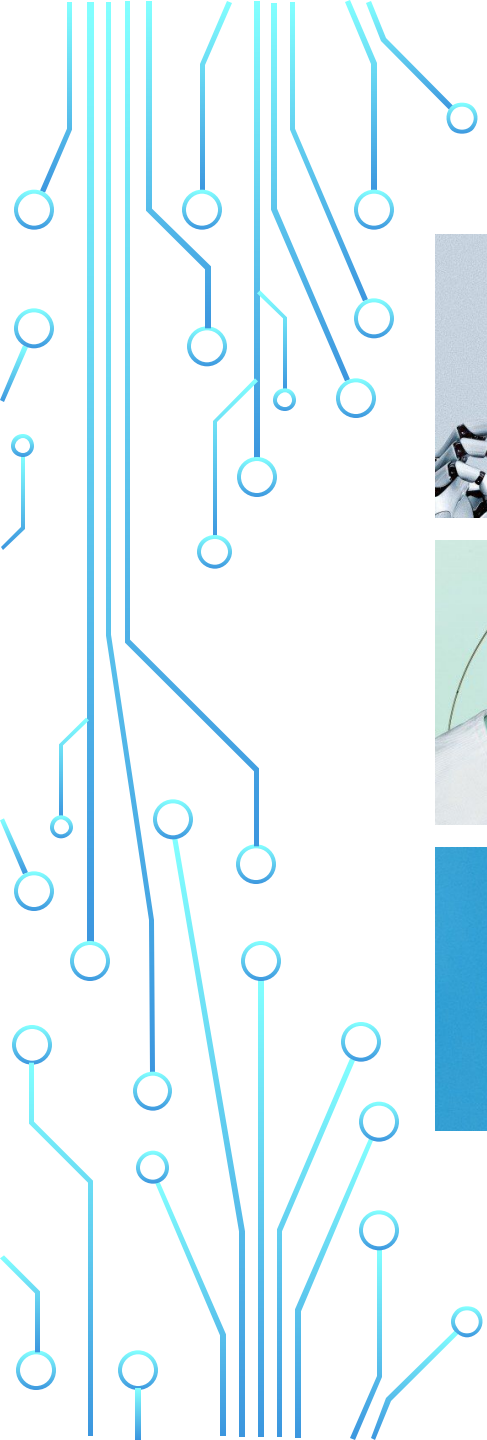
“Be Bolder”

Technology Update, February 27, 2020

Don G. Langenhorst, Ed.D

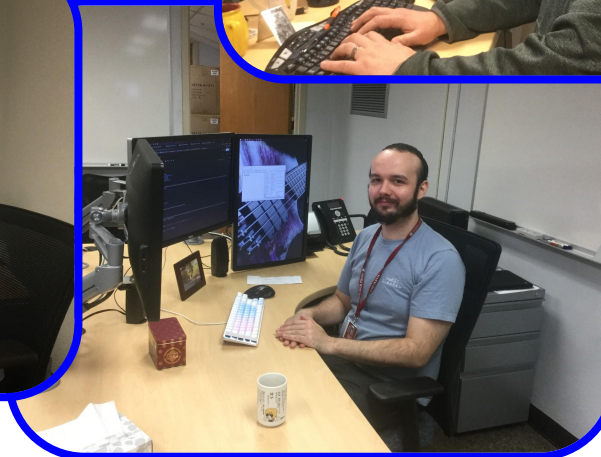
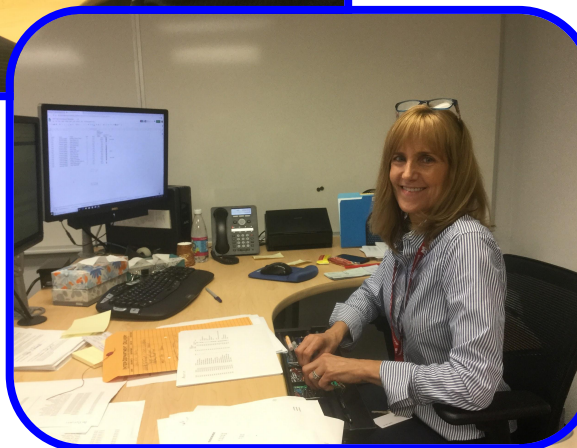
Technology Director

[Dedham Public Schools](#) > [Educational Technology](#) > [Technology Plan FY20 - FY22](#)



10 Breakthrough Technologies 2019

Technology Team



Honoree - Grandson of ...



THE EATON LIBRARY
DEDICATED IN HONOR OF
RALPH A. EATON
OCTOBER 1, 1978
TEACHER AT DEDHAM HIGH SCHOOL
1918 - 1919
PRINCIPAL OF DEDHAM HIGH SCHOOL
1919 - 1953
SUPERINTENDENT OF SCHOOLS
1953 - 1954
EDUCATOR LEADER FRIEND

Representative
★ **PAUL MCMURTRY**
Democrat - 11th Norfolk



✉ PaulMcMurtry@mahouse.gov

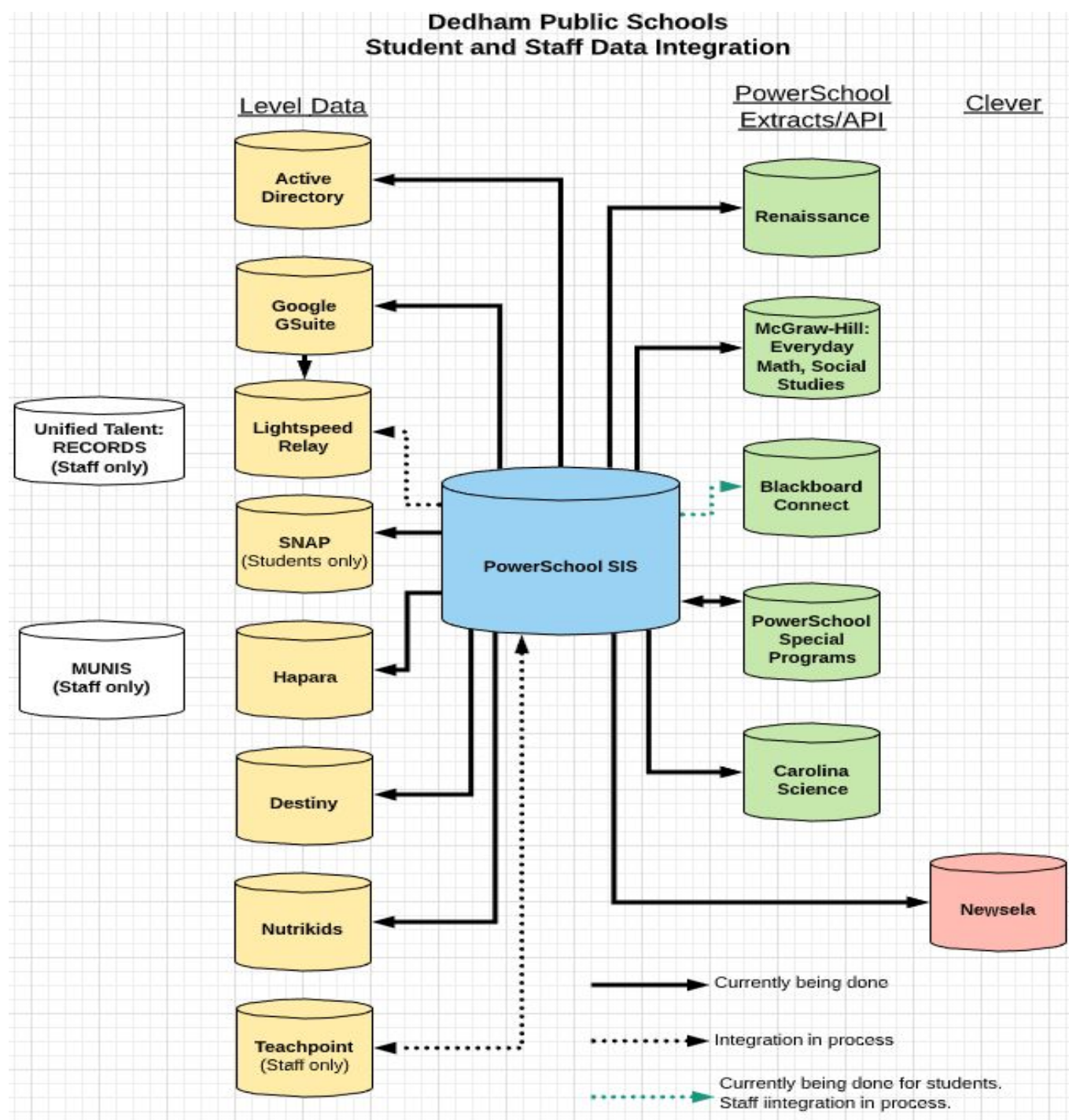
🏛️ STATE HOUSE

24 Beacon St. [📍](#)
Room 171
Boston, MA, 02133

Phone: (617) 722-2015
Fax: 617 722 2160

Data Integration

Best Services Databases Integrated



Dedham Savings Donation

250 Cases for
incoming
6th Graders

\$4,875



Dedham Savings
Here for the journey.





Technology Plan FY20 - FY22

Technology Integration Assessment and Plan

Ongoing Integration Efforts

Integration of SEL needs into DLCS Standards & align w/ Curriculum

Trusted Learning Environment

Rich-Technology Device Setting

Robust Safe and Secure Network and Technology Support

Data Integration and Electronic Records





Seven Teams of Presenters:
Technology Transformation
STEM/STEAM/STREAM
Data Privacy - Tale of Two Districts
Engaging and Innovative Teaching Strategies
Technology Supported Project Based Learning
Virtual Reality in the Classroom
Teacher as Change Agents - Teacher Coaches
Student Groups with Teacher & Parent Chaperones
EL Students - NPR Podcast Challenge
MS Students - Environmental impact / Global Warming



FUSE Cohort 1



[Ken Toomey's RI speech](#)

FUSE Cohort 2




Digital Learning Day Tomorrow

Dedham Innovative Educators #DLDay #Dedhaminnovates

July 4 • 2 • 1m


AAC at Dedham Middle School

In Ms. Watson's class students use their Touchchat communication app on their iPads to discuss the weather in science class. Students listen to a book about weather, then watch the local weather on Channel 5. They had to match the vocabulary words they heard and read on their communication devices.



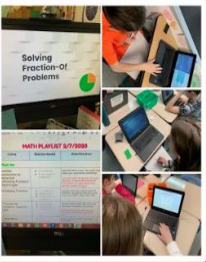
Art in the Elementary Schools

Students in grades 1st to 5th use iPads in Ms. Alzone's art classes to upload photos of artwork to Artsonia. Students are able to add video artist statements, in addition to tradition written artists statements and titles.




Differentiated instruction in 5th grade

Mr. Toomey uses various tools to differentiate and uses data to inform instruction.




History + Library = Innovation

Mr. Medeiros and Mrs. Johnson team together combining library media and US History. The board game project involved students designing their own board games based on the US Constitution. This was done in a makerspace setting, and many students used 3D printing to make the playing pieces, dice, etc. They also had to make the board itself, rule book, etc.



Escape rooms at Dedham High School

Mr. Medeiros and Mrs. Johnson team up once again! The escape room project was done using Flippity. Students had to navigate through a series of clues spread throughout the Library while unlocking the digital locks on the Flippity escape room game.




Smartnotebook Special Education Elementary

Math: match the decimal number on the left to the decimal number rounded to the tenths place (has music and animation)

Science: game show review of the water cycle


3D Vortex: sorting pictures that should be spelled with -tch and those that are not spelled with -tch

Race car game: review of skills taught in level II of Orton Gillingham (car goes faster when you answer correctly).



Research in an Elementary School

Collaboration between Library Media Specialist and first grade teachers based on making these penguin pic collages based on the research that students did on penguins.




Playlists during Math in the Elementary Schools

5th grade teachers sample of Mathematics playlist used to differentiate instruction.

Activity	Materials Needed	Notes/Directors
Digit U.S. location	• Chrombook • Whiteboard • Marker • Eraser	Go to the "Math Resources" in Google Classroom. Use the slide to help you practice U.S. location.
Quotients	• Chrombook • Whiteboard • Marker • Eraser	Go to the "Math Resources" in Google Classroom. Use the slide to help you practice quotient.
Division & Multiplication	• Chrombook • Whiteboard • Marker • Eraser	Take the quick quiz in Math Assignments. When you are done, put the grid paper in "Bin #2" (table above your computer).


Real life experiences Dedham Middle School

8th Grade Science students are asked the question: How can a coastal city, like Boston, be redesigned to lessen the impact of bigger storms and rising sea levels? Students develop these designs through research, reflection & peer questioning. Once designs are complete, students present through an online forum on Padlet to professionals in the climate change field and get their feedback.



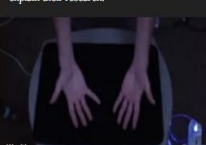
Dedham Middle School

8th Grade Science students are asked the question: How does gravity manipulate the solar system? The attached playlist uses gravity simulations & a gravity lab using a spandex table cloth to help them build & demonstrate their understanding.




Student magically redefine their learning in an English class at Dedham High School

Mrs. Rocha's 9th grade English students redefine their learning by using magic to explain their research.




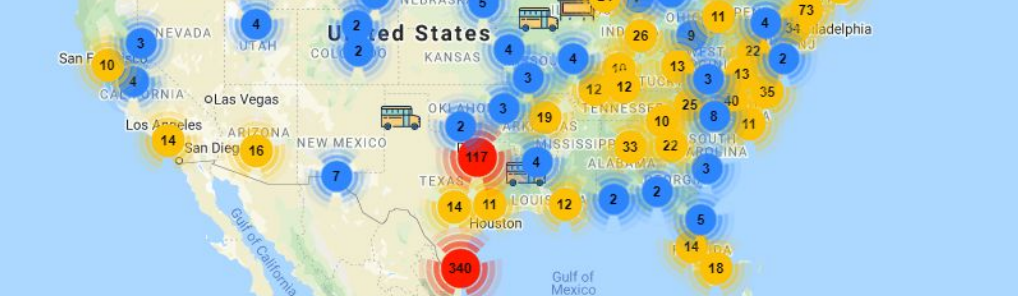
3D modeling Mollusks at Dedham High School

Ms. Casal's science classes collaborated with the library to design 3D printed Mollusks to demonstrate their understanding in Marine Biology.



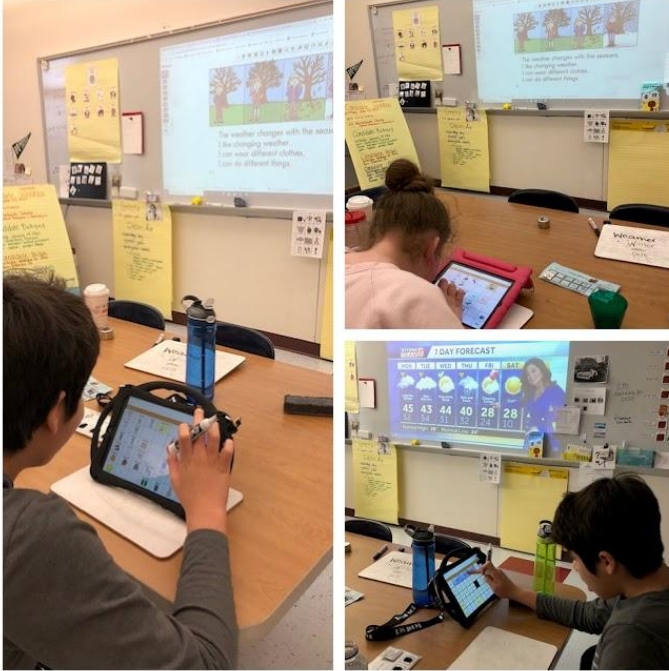
Data Driven Instruction in an elementary classroom

Mr. Toomey, 5th grade teacher discusses about he uses Google Forms to access student understanding and provide support.

Assistive Technology

Augmented Alternative
Communication (AAC)
LAMP
TouchChat
Proloque2Go



Professional Development
December 18, 2019
The Special Education teachers from the
ECEC gathered together to explore topics
that focused on iPads that are used in
every classroom at the ECEC and as
Augmented Alternative Communication
(AAC) devices with students. The topic
focused on the ability to adjust privacy
settings, based on use, guided access
and video storage.

November 5, 2019
26 Elementary Special Educators
attended a ½ day personalized
professional development where they
could choose to learn about Lexia,
differentiated instruction, Read/Write
extension, Bookshare and iPad apps.

Special Ed Team Leaders
Checking out Google Classes



Assistive Technology Resources

Software

Gynzy
BrainPop
News2You
Boardmaker
ReadWrite Ext
Bookshare
Learning Ally
Writing with symbols
Zoomtext

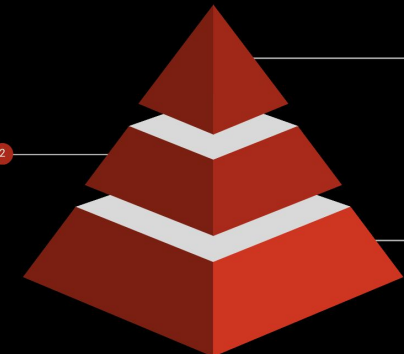
Equipment

Vision: Enlarged monitors,
keyboards and
Chromebooks

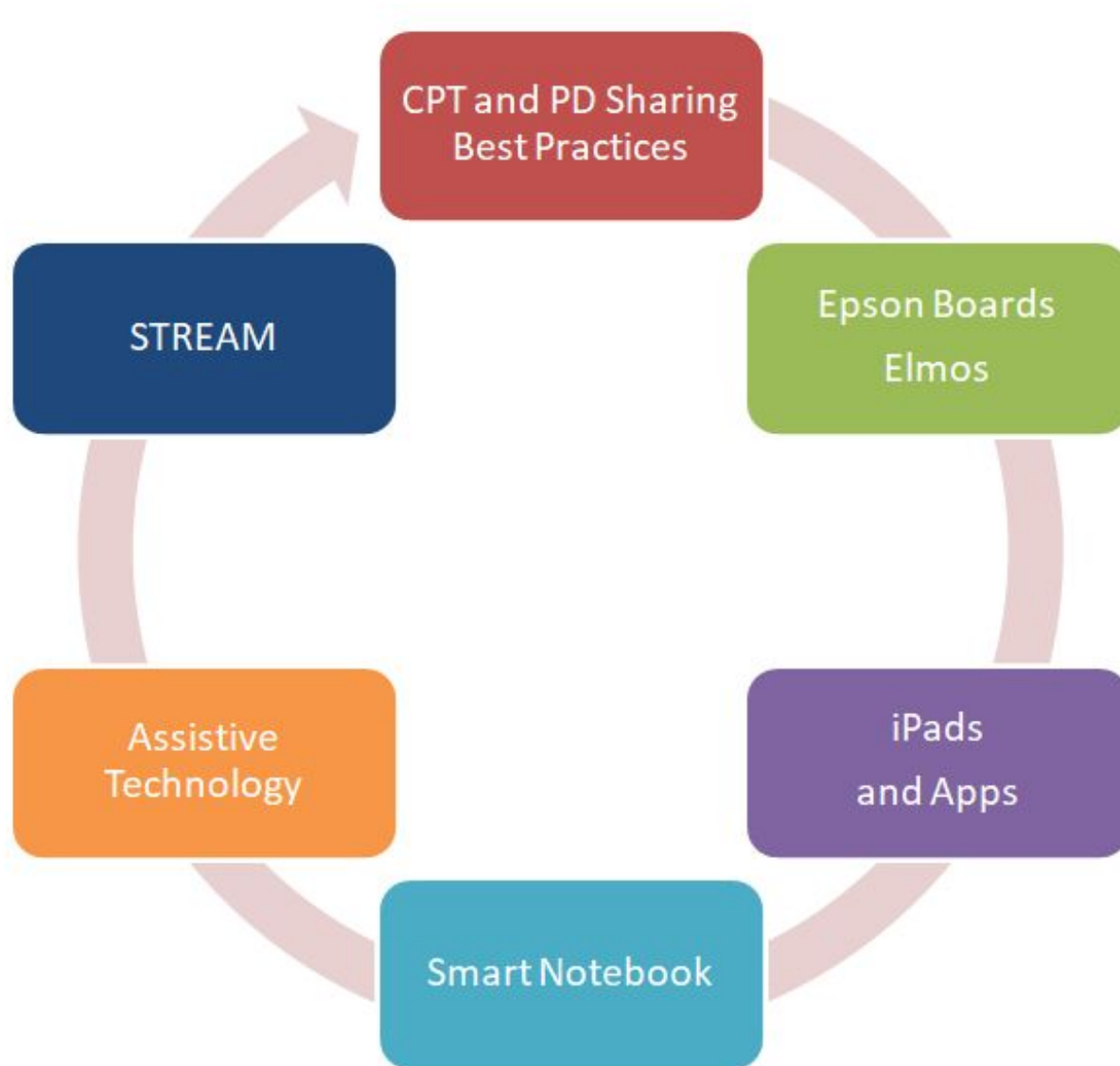
iPads: Classroom, OT,
SLPs, students

Laptops: Students

Apps

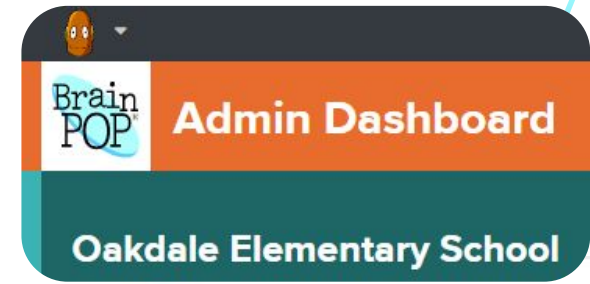
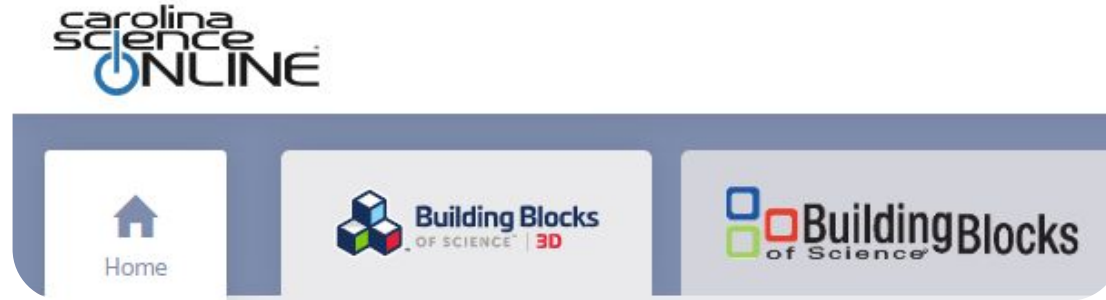


ECEC Work Opening through Now



[Technology Resources Page](#)

Spotlight Grades 3- 5 Integration Work



41
Educator accounts



252
Student accounts



125
Students
Watched a movie



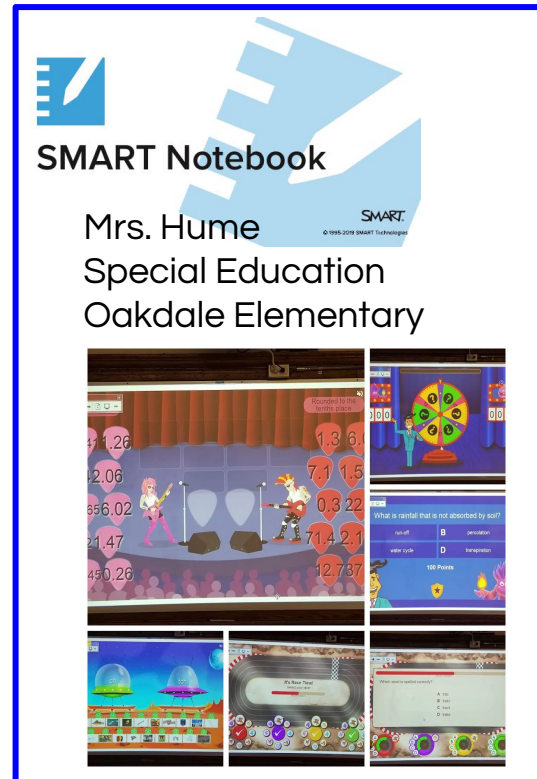
92
Students
Took a quiz



1
Students
Made a concept map



33
Students
Played a game



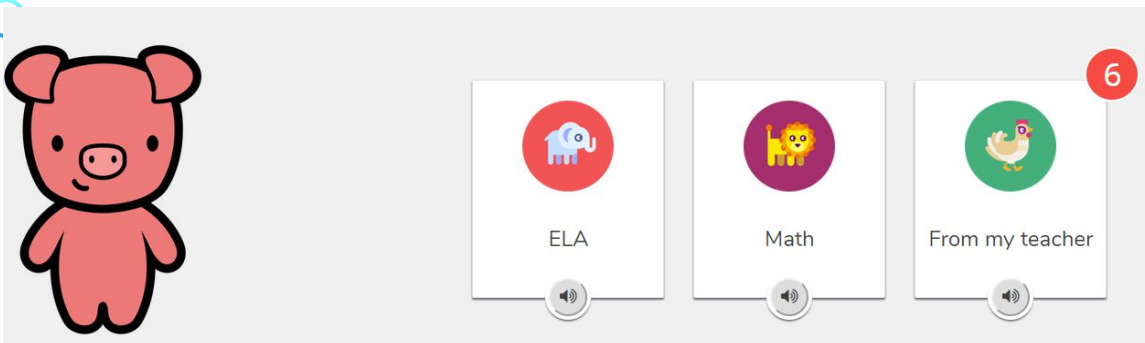
Google Classroom

Mrs. Merritt
3rd Grade
Avery Elementary
Journaling using
Chromebooks



All Schools (7)

Teachers	Students	Courses
TOTAL: 78	TOTAL: 870	TOTAL: 70
SOURCE: Admin 0 Non-Admin 78	SOURCE: Admin 0 Non-Admin 870	SOURCE: Admin 0 Non-Admin 70





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Social and Emotional Wellness & Technology

Toward appropriate, purposeful and mindful use

DIGITAL CITIZENSHIP CURRICULUM	GRADE 3						GRADE 4						GRADE 5					
 Educating Hearts. Inspiring Minds. CASEL: Core SEL Competencies Grades 3-5	Rings of Responsibility	Password Power-Up	This Is Me	Our Digital Citizenship Pledge	The Power of Words	Is Seeing Believing?	My Media Choices	Private and Personal Information	Our Online Tracks	Keeping Games Fun and Friendly	Super Digital Citizen	A Creator's Rights and Responsibilities	Finding My Media Balance	You Won't Believe This	Beyond Gender Stereotypes	Digital Friendships	What's Cyberbullying?	Reading News Online
1. Self-awareness: The ability to accurately recognize one's own emotions, thoughts, and values and how they influence behavior. The ability to accurately assess one's strengths and limitations, with a well-grounded sense of confidence, optimism, and a "growth mindset."																		
a. Identify emotions			•		•		•	•					•	•	•	•	•	•
b. Accurate self-perception			•		•		•						•					
c. Recognize strengths											•							
d. Self-confidence											•							
e. Self-efficacy											•							
2. Self-management: The ability to successfully regulate one's emotions, thoughts, and behaviors in different situations — effectively managing stress, controlling impulses, and motivating oneself. The ability to set and work toward personal and academic goals.																		
a. Impulse control	•				•				•			•						
b. Stress management																	•	
c. Self-discipline	•				•				•			•						
d. Self-motivation													•					
e. Goal-setting													•					
f. Organizational skills													•					
3. Social Awareness: The ability to take the perspective of and empathize with others, including those from diverse backgrounds and cultures. The ability to understand social and ethical norms for behavior and to recognize family, school, and community resources and supports.																		
a. Perspective-taking			•		•					•	•				•		•	
b. Empathy					•						•				•		•	
c. Appreciating diversity											•				•			
d. Respect for others	•			•	•				•	•	•				•		•	

[Town-wide PTO Presentation](#)

[Resource Page](#)

Trusted Learning Environment

Policies

Student Data
Privacy

Network Closets

Phishing Training

Password
Training

1

Leadership Practice: manage and collaborate with stakeholders regarding the use and governance of student data to inform instruction

2

Business Practice: establish acquisition vetting processes and contracts that, at a minimum, address applicable compliance laws while supporting innovation

3

Data Security Practice: perform regular audits of data privacy and security practices and publicly detail these measures

4

Professional Development Practice: require school staff to conduct privacy and security training and offer the instruction to all stakeholders

5

Classroom Practice: Implement educational procedures and processes to ensure transparency while advancing curricular goals

Student Data Privacy Consortium: National/International Organization for Student Data Privacy

Dedham's Educational Technology Student Data Privacy

Info on SDPA from
[Town-wide PTO Presentation](#)

Privacy – By The Numbers...

the Student Data Privacy Consortium (SDPC)

26



State-wide Alliances



Tools for:

Privacy Contract Building
Application Inventory & Searchable Database
Application Contract Management
Global Education Privacy Standard (GEPS)

'Tactical' Privacy Information
– contract to implementation

32million



Students supported
by Tools

8700+



School Districts
represented

4



Countries Collaborating
on Privacy Issues

5332



Signed Vendor
Agreements

2603



Applications in
Database

4108



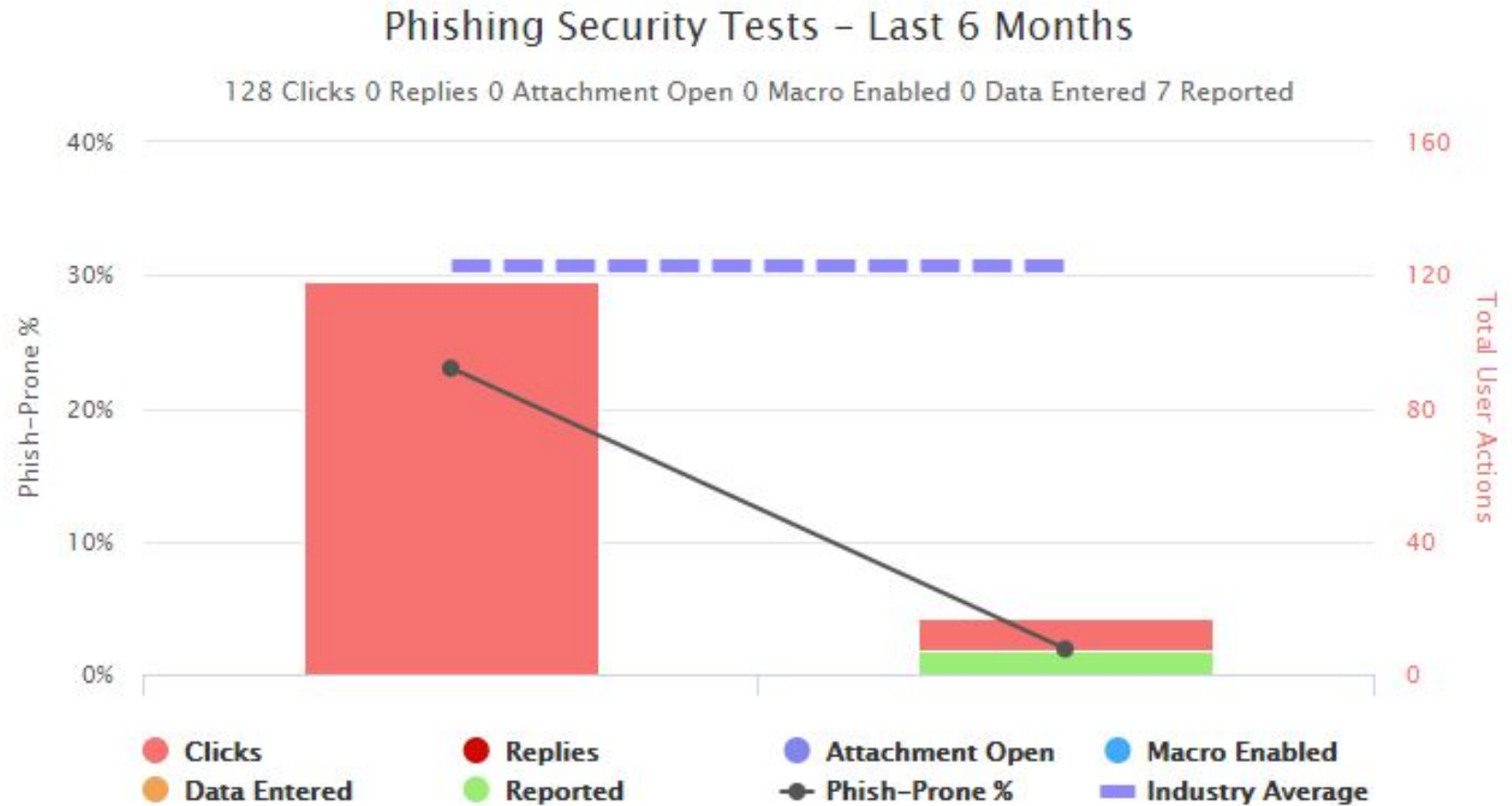
Signed "Piggyback"
Exhibit E

*Setting common expectations between Providers and their
Customers through interoperability and privacy*

Phishing Training



Industry Benchmark Data (?)	
YOUR LAST PHISH-PRONE%	1.9%
INDUSTRY PHISH-PRONE%	30.7%



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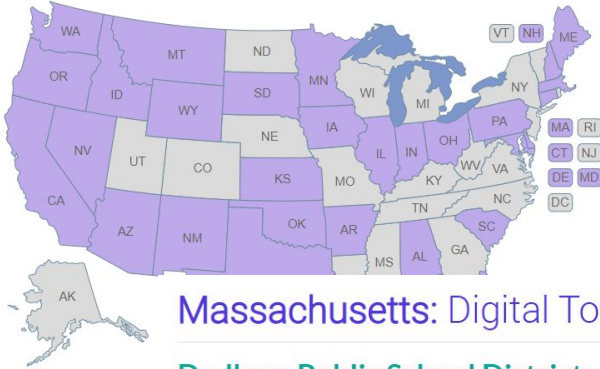
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Education SuperHighway Articles



Massachusetts: Digital Tools Help Nonverbal Preschool Students

Dedham Public School District



Photo: Dedham School District

In Dedham, Massachusetts public schools, students use tablets until the third grade, and then transition to laptops and a full 1:1 program. Teachers have access to a wealth of subscription-based software, appropriate educational websites, and other real-time interactive tools that support the curriculum.

The district also invests heavily in professional development, sending teachers to conferences and Edcamps and encouraging the sharing of best practices on social media – all in an effort to improve student learning. “We want to provide teachers what they need and kids what they need,” says Dr. Don Langenhorst, the district’s technology director. “And everyone is different, so our job is to provide consistency with differentiation of support

For some nonverbal preschool students with special needs, digital learning takes the form of augmentative and alternative communication (AAC) apps, which provide visual and auditory input and can help improve verbal language skills. Teachers model how to use the apps on tablets, showing students how to touch symbols to communicate their basic needs and wants. The district even allows these students to take the tablets home with them. Thanks to these digital learning tools, some previously nonverbal students have become verbal communicators – and no longer need the tablets.

Source: EducationSuperHighway

State Stories

Fiber Story



Photo Credit: Dedham Public School

SUCCESS STORIES

3 Things Dedham Public Schools Can Now Do With a Fiber Connection

Yeah, but what can we do better?

Technology Integration Data Gathering and Analysis

Approximately 400
classroom visits
(October - January)

