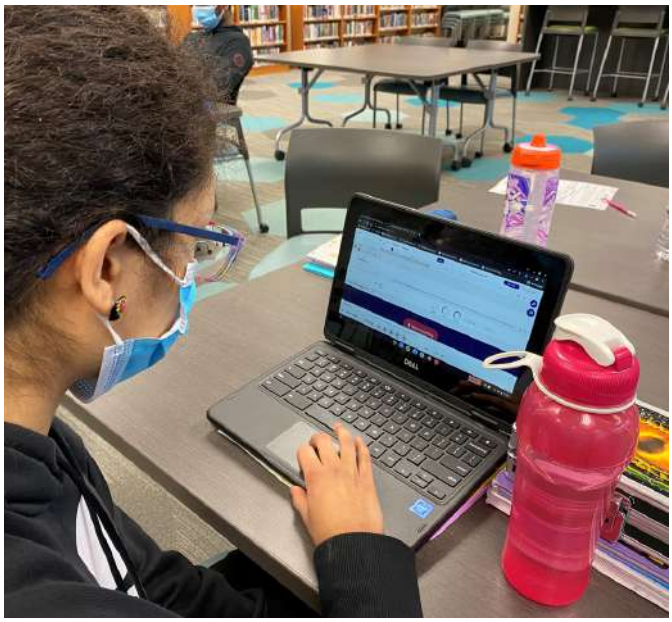
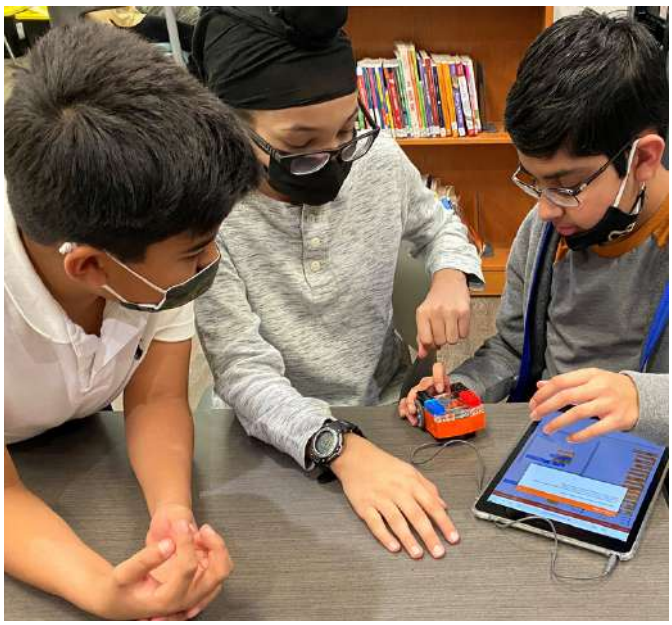
ROCHESTER COMMUNITY SCHOOLS

PRIDE IN EXCELLENCE

LEVERAGING THE DIGITAL

STORIES OF LEARNING AT ROCHESTER COMMUNITY SCHOOLS





Technology on its own is just a tool, but when paired with strong instructional practices, technology can transform learning. In my role as the district instructional technology specialist, I have the incredible opportunity to partner with and support educators across our district with the innovation and integration of technology.

This past year it's been remarkable to see the ways our educational professionals are redesigning and reframing learning opportunities to better leverage our digital resources and create more student-centered, empowered deep learning. One of the best parts of these experiences is seeing the joy and excitement of our students.

From these meaningful learning opportunities, our students are becoming empowered learners, computational thinkers, innovative designers, knowledge constructors, creative communicators, global collaborators and digital citizens.

The stories in the accompanying pages are just a handful of the many ways Rochester Community Schools educators are leveraging the digital to transform learning.

I'm excited to celebrate this learning with you and look forward to where it will take us in the future.

Rachel Mainero

Rachel Mainero
Instructional Technology Specialist
Rochester Community Schools

01 Empowered Learners

As empowered learners, students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals.

First-grade teaching team Michelle Guest, Jennifer Spencer and Angela Schmitt at Baldwin started the year thinking about how to leverage technology for students to self-assess their snap word knowledge and reflect on their learning. After exploring the tech tools available, they decided to use Read&Write for Google and Google Slides.

Students would say their snap words aloud, use the Read&Write extension to hear the word read aloud, and then use Google Slides to self-assess their understanding.

"We appreciate how these tools helped empower students to take an active role in assessing and reflecting on their learning. Students were excited and engaged with using the tools," teachers said.

Students at Brooklands took the lead in their learning when they selected which science fair topics they wanted to explore and share with a wide audience. Students used a variety of technology tools to conduct their research, record their findings and create visual presentations.

When asked what inspired him to choose the subject for his project, student Renny said,

"I got a Lego set a few years ago and hadn't used it. In January, I noticed it and decided to use it to create a prototype. I was recently coding with Scratch, and knew that Scratch coding worked for Lego motors and sensors. I disassembled the original truck model and created my first prototype."

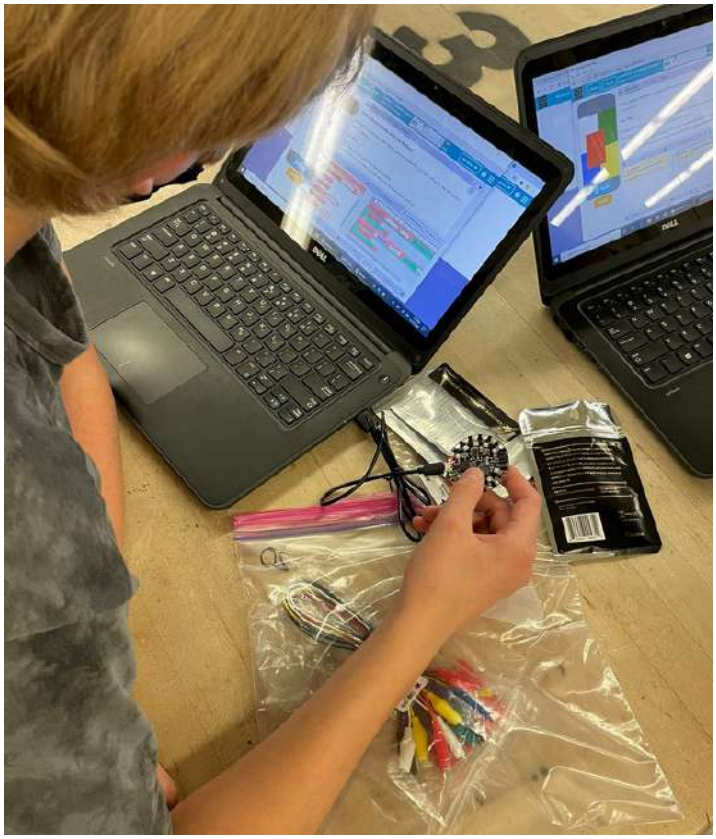
Students had lots of fun throughout this process as they engaged in problem solving, critical thinking and creativity. Renny went on to explain what made this type of learning memorable and fun.

"I liked racing it around the house but found a challenge when it could only go forward and backward; it had little controllability. I added a second motor so I'd be able to turn it and redesigned the entire program to allow for turns. I realized other features had to go, like the tilt sensor and crash sensor. But I am happy with the prototype that was developed. I plan to send it on Earth-exploring missions, and it is designed to sustain being in motion for up to five days. I am looking forward to developing version 3.0 to adapt to the wilderness. I also created a camera and self-driving and solar panel features, but did not include these in the science fair project."

> "I am happy with the prototype that was developed. I plan to send it on Earth-exploring missions."

02 Computational Thinkers

As computational thinkers, students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.

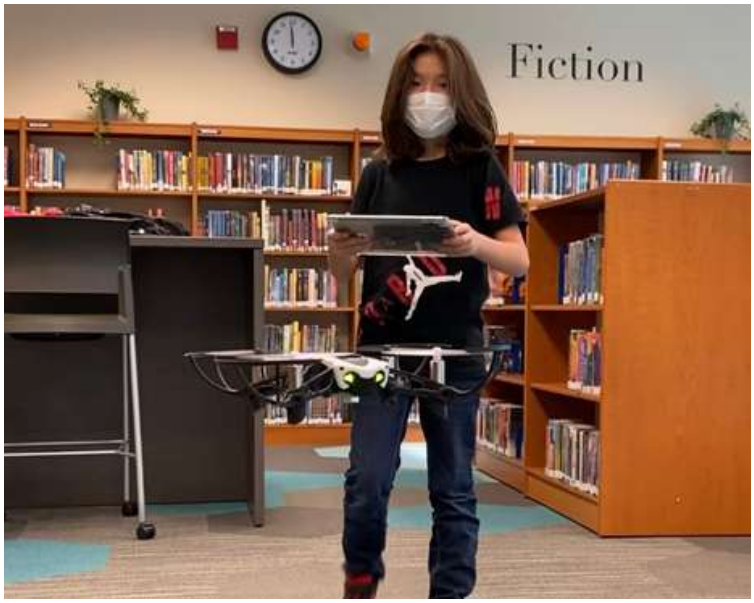


Today's students must be prepared to thrive in a constantly evolving technological landscape. Students in Jennifer Diemert's STEM class at Van Hoosen Middle School had the chance to explore physical computing while using an Adafruit Circuit Playground Express, a programmable circuit board, and lessons from Code.org. These tools help students develop and employ strategies for understanding and solving complex problems.

"What I really enjoy about this project is that it gives students a chance to relate to a lot of the physical devices they use daily. The students begin to see the connection of their coding having a practical use outside of the classroom," Ms. Diemert said.

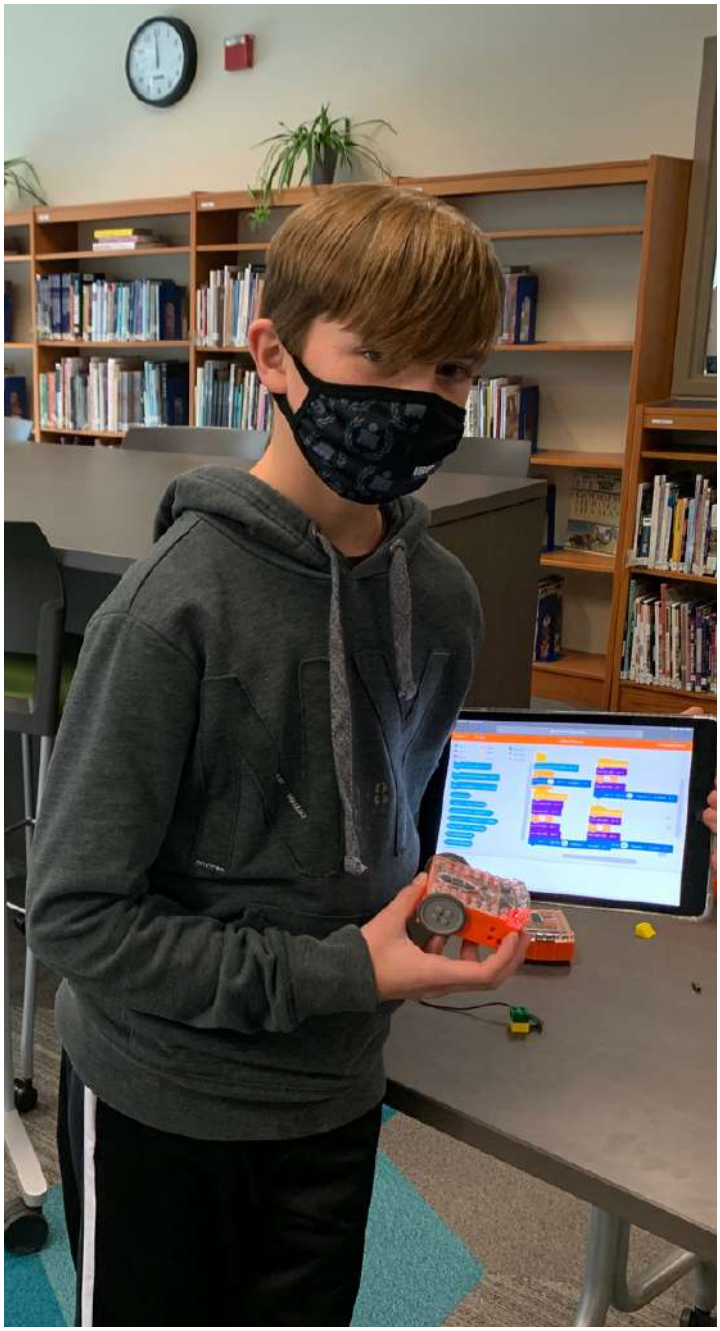
Combining the hands-on project with a tech-based project led students to create a posture checker, automatic nightlight, thermometer and more.

In the fall, sixth graders at West and Van Hoosen participated in an Ignite Learning Day, designed for students to explore emergent technology tools and career connections. Students rotated through four learning stations centered on smart manufacturing, extended reality, collaborative robots and autonomous vehicles.



Each station focused on a problem students needed to solve using the technology tools in front of them, such as coding robotic vehicles to safely remove hazardous waste and piloting drones to take aerial photos of patches of deforestation. For many, this was their first time using any of these tools, but this innovative learning experience provided opportunities for students to develop their sense of creativity, perseverance and curiosity.

> **"This experience was so fun. We got to explore so many different types of technology. It made us all really excited about today's world and the future."**



I had a chance to sit down with students from each building to talk about the impact of this learning experience. You can hear more about it by listening to our podcast episode:

Learning Through Tinkering

Click on the embedded link or scan the QR Code with your device.

Students at Hugger Elementary engaged in computational thinking as they worked with Ozobots in the media center. Information Literacy Specialists Tammy Posner and Yvonne Kuhlman designed open-ended lessons to challenge all students. Kindergarten through fifth-grade students felt empowered and engaged as they worked both independently and collaboratively to complete tasks.

Within the unit of study, students were exposed to computer coding on Chromebooks. Next, they used their coding knowledge to put their learning into action using Ozobots. Ozobot is a small, smart robot that can follow lines, detect colors, and can be programmed using visual codes. Students learned hands-on about robotics, math and programming. They used trial-and-error approaches to test their thinking and made necessary changes to achieve desired results. Students actively sought feedback from classmates and their media specialist to inform and improve their practice. The students demonstrated perseverance, determination, leadership and creativity throughout the unit.

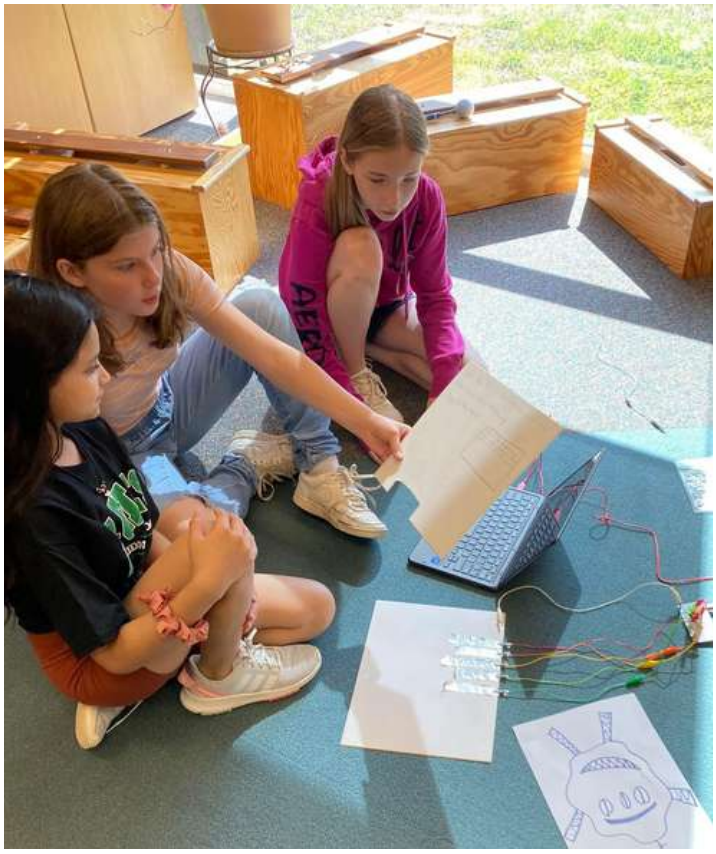
At Hampton Elementary, students in Mrs. Charbonneau and Mrs. Vaughen's fifth-grade class have a passion for technology! When Ozobots were introduced into their everyday routines, students were thrilled.

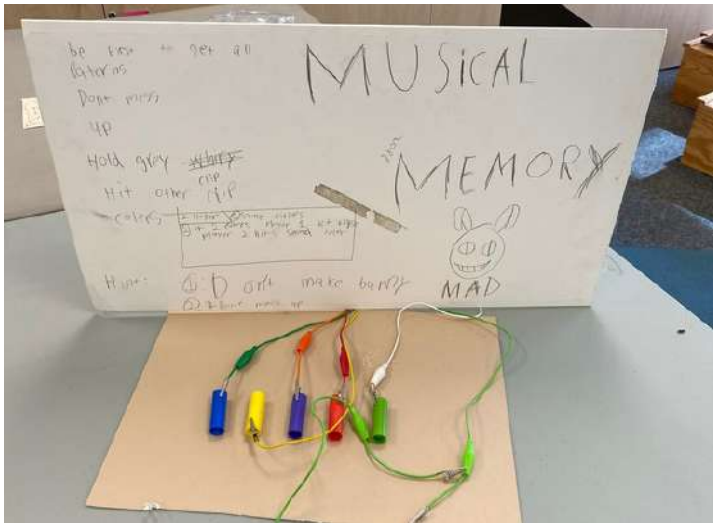
The Ozobots helped to enhance the math curriculum. When learning about multiplying and dividing decimals to the power of 10, students used these robots to show their skills. Students would code the robots to move the decimal point of the given problem. This allowed students to practice math skills, coding strategies and problem solving.

"I liked how we could code the Ozobots to go fast and slow. It made math more fun," one student stated. Mrs. Charbonneau shared, "There are many different ways that Ozobots can be used across the curriculum; I cannot wait to include the robots more throughout the year!"

03 Innovative Designers

As innovative designers, students use a variety of technologies within a design process to create new, useful or imaginative solutions.





A banana piano, aluminum foil drums and musical spoons are just a few of the many instruments students made during music makerspace in Jolene Plotzke's fifth-grade music class at McGregor Elementary.

During this unit, students explored how different musical sounds can be made using a Makey Makey, computer and conductive materials. Students engaged in the design thinking process as they constructed, prototyped and shared their own innovative instruments.

When asked about the experience, Plotzke explained, “This project was a thrill for me. Seeing the students use materials and ideas from art class and lessons learned in science to create a musical experience in my room via technology was beyond what I could have imagined at the beginning of my career. But here we are, designing games and interactive instruments from circuits and imagination.”

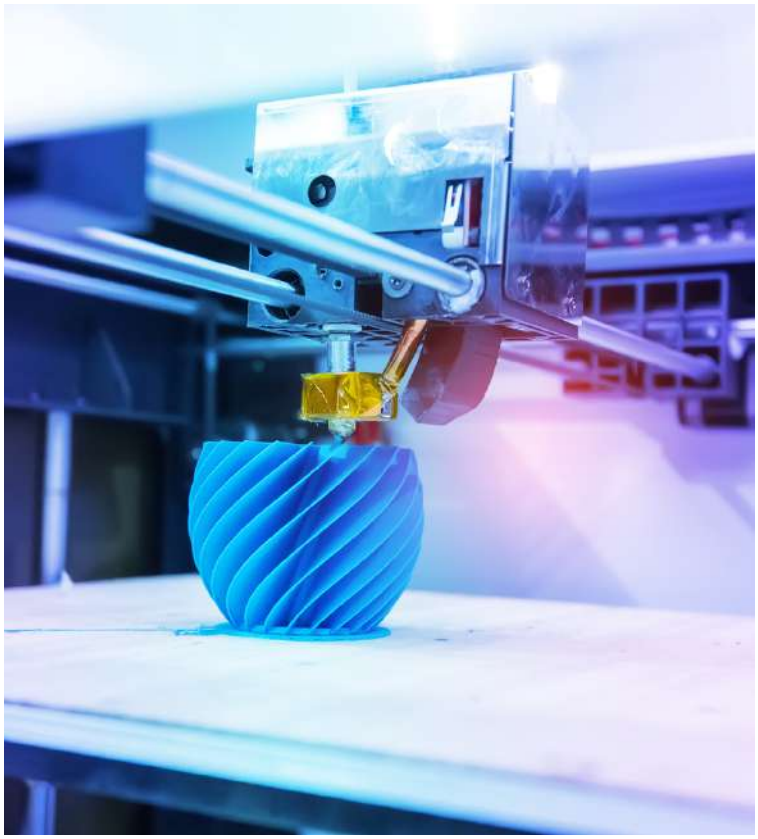
The students put their Makey Makey creations out as an interactive display at their McGregor open house and had at least 100 visitors experience their technology-enhanced musical instruments and games.

"Wow, this is so cool!" "I wish I had one of these at home!" "Look, it's printing my design." These are just a few of the excitements overhead in Lynnette Teller's media center at Meadow Brook Elementary.

Students in her fourth- and fifth-grade media classes engaged in an innovative designers unit where they learned about 3D printing and design.

The unit began with Mrs. Teller introducing students to the 3D printing design tools they would use. Then students began to investigate and sketch out what type of designs they would like to create. After their sketch was approved, the students began to create a prototype of their design using Tinkercad, an online 3D modeling program. Before the design was ready to go to the printer, students checked with a peer to test and look over their design to make sure it met the assigned criteria. The final step was to share their design with Mrs. Teller and watch it print on the 3D printer.

Teller shared, "3D printing is a huge hit with the students. They like to look closely and watch how the machine works. Students also really enjoy being able to see their designs come to life. It's a joy to see the students so excited about creating with these emergent technology tools."



Students in Chad Zwolinski's Advanced Placement (AP) U.S. History class at Rochester High engaged in innovative design at the end of their study of the Civil War. Students used materials from their school's makerspace to create prototypes of Civil War monuments. When finished, they used Flipgrid to film persuasive videos to advocate for their monuments to be adopted in Washington, D.C.

Mr. Zwolinski shared, "My favorite part of the activity was seeing students have discussions about the what, why and how of the monuments. Just creating a design wasn't enough; they had to discuss, debate and agree on why they chose the design and then use a different part of their brain to actually make it. Every kid felt as though they contributed and could play a role."

Innovative design is happening in middle school as well. The seventh-grade science team across the district is always looking for opportunities for students to produce rather than consume and be interactive and creative.

At Hart Middle School, seventh-grade teacher Chris DeVantier feels like there needs to be a delicate balance of using technology and group work in his classroom.

In their current unit, students conduct investigations and develop evidence-based models of molecular systems as part of contrasting "heat" with temperature and explaining how thermal energy moves spontaneously from areas of high to low temperature. The system models are used in combination with engineering practices to design, test, and improve a physical model of a pet crate.

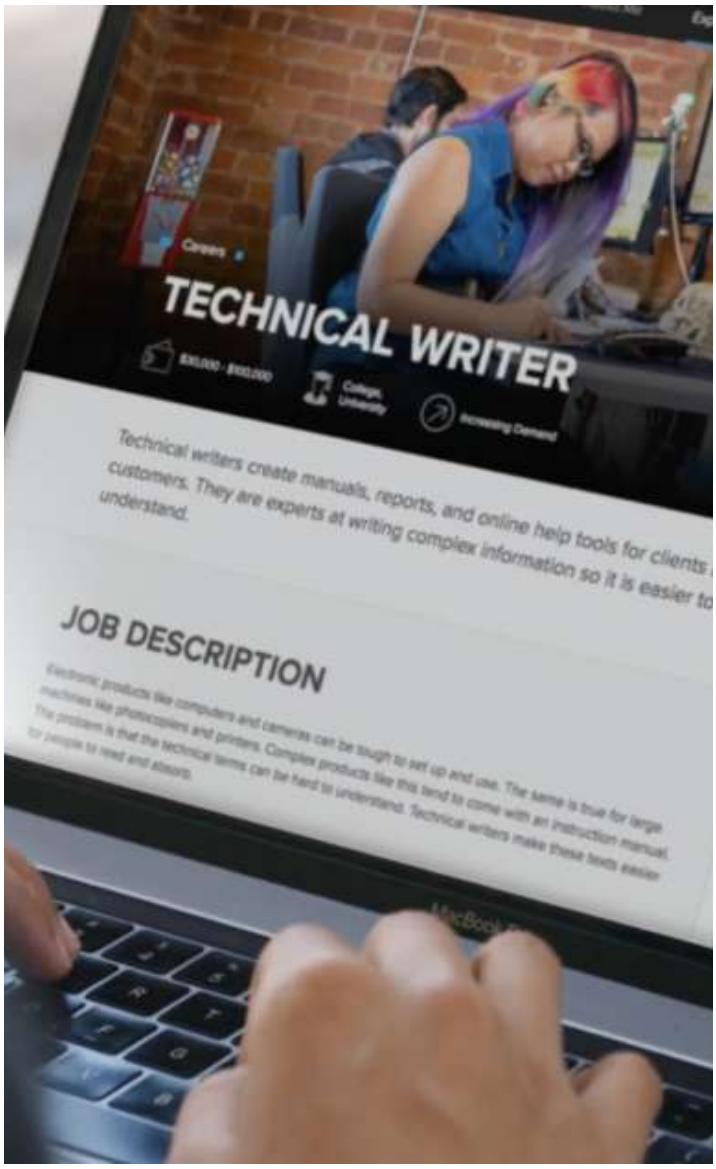
Students were challenged to use these principles and several science and engineering practices to design, test and improve a scaled, physical model of a crate that will keep a dog cool through the heat of summer days.

The final challenge was a "Shark Tank" type of proposal on why their dog crate prototype is the best and why the Humane Society should adopt their idea. Students presented how they tested the prototype, the results they had, and what modifications they used.

> We really enjoyed this project as we got to have a hands-on experience with testing and modifications of our crate. The final results were really eye-opening. We also loved the "Shark Tank" proposals that the other groups came up with. Tons of creativity from our fifth-hour classroom!
> -Timothy, Lek and William

04 Knowledge Constructors

As knowledge constructors, students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts, and make meaningful learning experiences for themselves and others.



Fifth-graders in Whitney Marshall's media classes at Long Meadow had the opportunity to use Xello and other resources to explore potential careers. Xello is an online program that engages students in career readiness activities. On Xello, students can identify their interests, skills, favorite school subjects and achievements. They can also explore a variety of careers, save their favorites, and create goals for themselves.

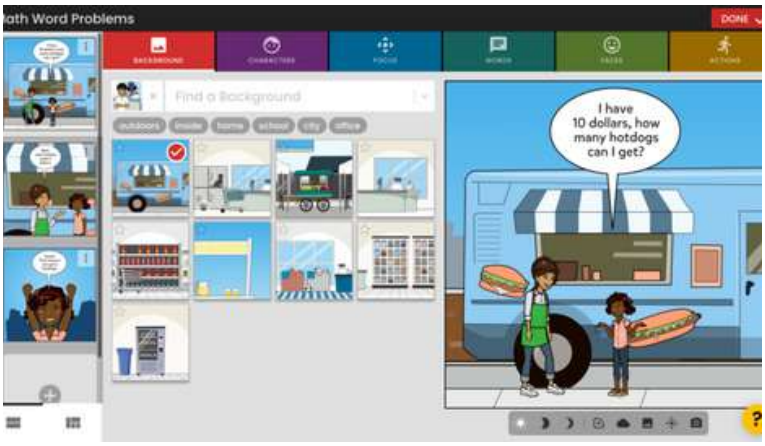
Marshall said, "Students are excited to learn about potential careers. Xello provides a great environment for students to see careers connected to their interests and passions."

Students used Google Slides to take notes on key information about a potential career. This included education or training needed, examples of daily tasks, and why they were interested in this career.

After researching and taking notes, it was time for students to teach their peers about what they learned. Students used Flipgrid to record videos of themselves sharing their project and career findings. The class then watched the recordings and left video and written comments. This learning provided a great opportunity for students to create meaningful learning experiences for their peers.

Second- and third-graders in Margaret Rainwater's library media classes at North Hill Elementary got to experience first hand what it is like to be a comic book writer. Students used a comic creation website called Pixton to create their own comics while learning about the elements of graphic novels in preparation for their author visit with James Burks.

Burks is the author and illustrator of numerous books for children including several graphic novels. He visited North Hill as part of the Authors in April program this past April. Students learned how graphic novels often include certain elements such as captions, gutters, speech bubbles and onomatopoeia and worked to incorporate these elements in their own comics. Many students now use Pixton during their free-choice time to create their own stories. One student shared, “It’s fun because we get to create our own avatars and make our own stories.”



> “It’s fun because we get to create our own avatars and make our own stories.”

Fourth graders in Angela Suwalkowski and Wendy Coin's classes at Musson Elementary do a state research project each year. This year, the teaching team decided to incorporate more choice in how students shared their learning with their peers and what they were going to research within their state.

The teachers presented a choice board to students with different options for sharing their work. Options on the choice board included video, podcasting and websites. Many of the students were excited for the opportunity to try video.

After a short introduction on how to use the online video creation platform WeVideo, students who chose this option began to design their own creative videos.

"Giving the students choice allows them to take ownership of their learning and enhances their excitement, engagement and effort," Suwalkowski said.

> The most important part about this was I was able to record my voice. I talked about who built the Empire State building, when it got finished, and some fun facts.
>
> -Patricio

I had a chance to interview two students to learn more about the impact of this experience. You can listen to it on our podcast episode:

Brain Run Wild: Providing Students Choice

Click on the embedded link or scan the QR Code with your device.

Students at Rochester High School can enroll in the elective course The History of Ethnic and Gender Studies. This course encompasses many cultures, histories and stories, and students needed a way to share their learning. The teaching team created a multi-genre research option for students. This inquiry-based learning option included students creating multiple artifacts focusing on their inquiry topic and then incorporating the artifacts into a reflection paper.

Students had the entire semester to research and create these artifacts from four different genres. Genres included artistic, informational, visual and auditory, and creative writing choices. Having students make the artifacts added a new element of ownership to the project, and students did not disappoint. The teaching team shared, “Students were so passionate about their individual choices. We had students create poems, podcasts and paintings to reflect growth and understanding of the topic throughout the semester. More importantly, students took control of their learning and made it meaningful.”

> It was great to be able to express ourselves artistically rather than just through words. It allowed us to express more clearly feelings and experiences that can't fully be put to words.
>
> -Maddy B.

> This project allowed me to think deeply about topics that I don't usually get the opportunity to think about and speak my mind about. Getting to speak on toxic masculinity was a great growth experience for me because it allowed me to have empathy for those with different experiences than me. It gave me a new perspective of what the world is like and the stereotypes that surround gender in our society.
>
> -Junior Samatha T.

*Scan the QR Code with your device to see the Google Earth interactive map of the **Old Spanish Trail**.*

Millions of pioneers, both American-born and immigrants from other countries, moved westward from the easternmost states across the country during the 19th century. These brave pioneers journeyed west for about five to six months along overland trails such as the California Trail, Mormon Trail, Old Spanish Trail, Oregon Trail, and the Santa Fe Trail for many different reasons. The journey was uncomfortable, physically demanding and hazardous with limited food and water.

In Ginnie Holloway's eighth-grade history class at West Middle School, students immediately reference the Oregon Trail and quickly ask if they are going to play the game when she begins discussing Westward Expansion. After delivering the sad news they wouldn't be playing the game, she knew she needed to do something differently that allowed some student choice and exploration.

Google Earth quickly came to mind. "Earlier in the year, we explored the Corps of Discovery using a Google Earth storyline. Students easily navigated Lewis' and Clark's path to the Pacific Ocean and back and learned a lot about the expedition, the challenges, and the successes," Holloway said.

This time, Holloway wanted students to use this tool to be digital cartographers and create their own Google Earth interactive maps.

Using Google Earth, the past met the present. Students selected a trail of interest and provided a brief history of eight key locations on the trail. They used primary sources, photos and video clips to help the viewer better understand the pioneer journey. They were also able to bring the viewer to the modern-day location. Some buildings remained the same. Some points were marked with statues, monuments and/or markers. Others were replaced by parking lots and neighborhood homes.

The Google Earth maps of the trails were informative. Students researched, summarized and communicated the importance of each trail and each stop. They used old photos from the 1800s and matched them to present-day locations. They included videos to help the user better understand the importance of the trail location.

"Recently the eighth graders visited Washington, D.C. Students suggested creating a Google Earth map to document our trip so others can enjoy the different stops, view our photos, and share the information we learned," Holloway said.

It's exciting to see students take the digital tools they learn in class and apply them to other projects and passions.

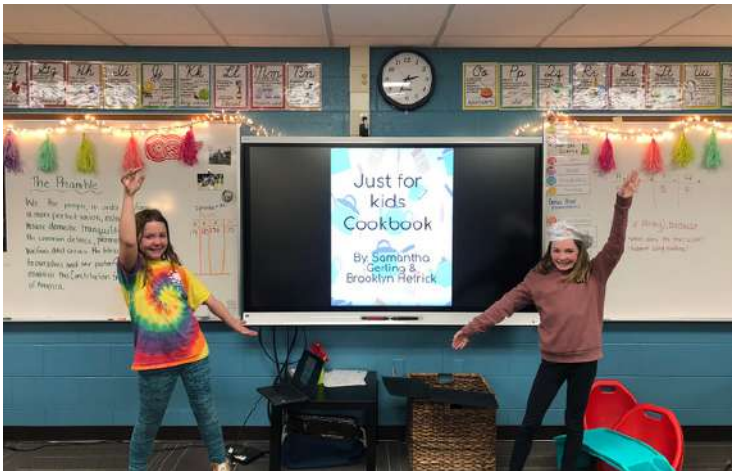
University Hills fourth- and fifth-grade teacher Kaitlyn Axford believes in incorporating student choices and technology whenever possible to help make learning fun, engaging and accessible. This school year she developed a Genius Hour Project centered on students using their passions to help solve a problem in their community.

"During this project, I was able to teach and reinforce a lot of research skills that included having students evaluate sources, reach out to community members and experts, and also be critical problem solvers," Axford said.

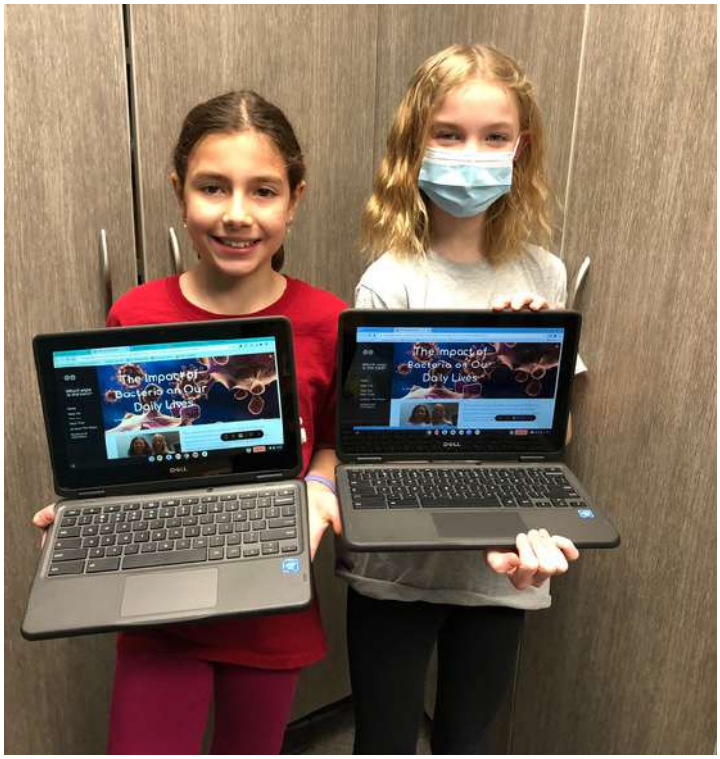
Students had to identify a problem in their community they felt passionate about and develop a driving research question that could sustain them for six weeks. It had to have a positive impact on the community, and they needed to be able to share their information with a wide audience.

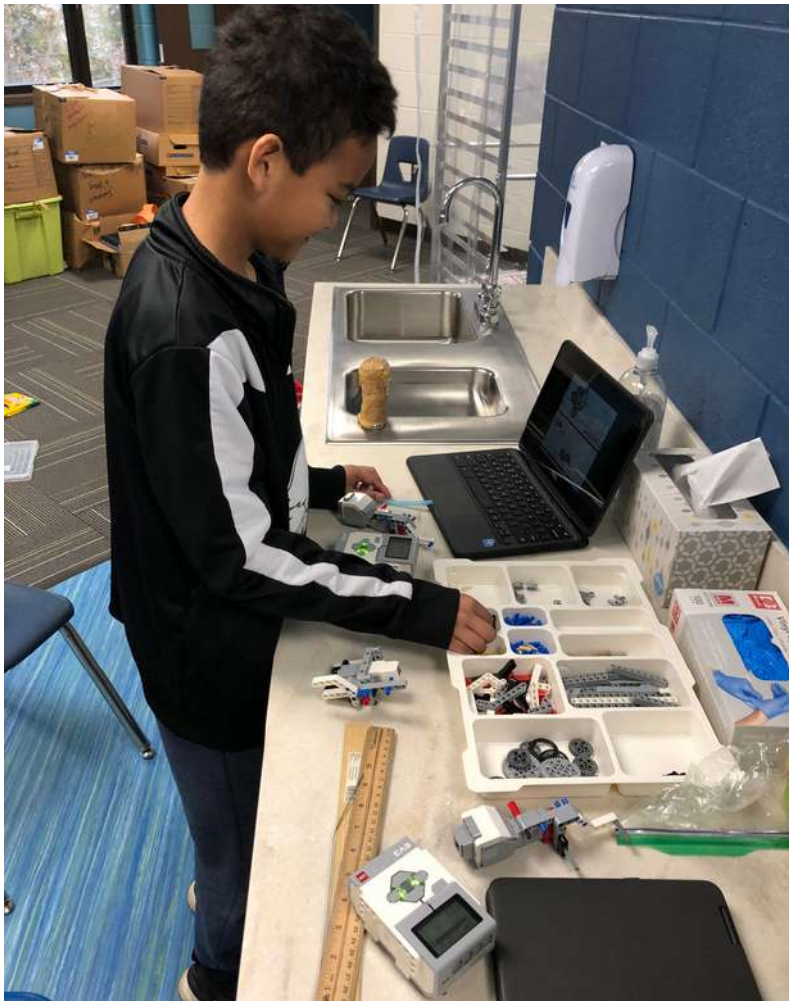
Some topics included the importance of learning coding skills at a young age, how to provide resources for the less fortunate, which antibacterial wipes were the best to use, and more. Many students chose to share their learning by creating a website, which allowed them to learn a lot of technical skills in addition to their research skills.

> "I really liked the project because it gave us an opportunity to have some freedom in school. In elementary school we don't have as much freedom in what we learn like middle schoolers and high schoolers do, but Genius Hour gave us an opportunity to pick what we wanted to learn. For example, some of us made cookbooks, did science experiments, and problem solved our school lunch times."
> – Khloe H., Fifth Grader



> It was fun because you get to really follow what you love and I think that will really help you later on in life.
> -Nischay P., Fifth Grader





> It was fun to learn about what we wanted to learn more about! We all did our own thing that we wanted to learn more about, which was better than if we all had to do the same thing because we might not have been as interested in that topic.
> – Jacob C., Fourth Grader

> I thought it was nice because our teacher didn't pick our topics for us. The whole point of Genius Hour was for us to pick a topic that we wanted to research and learn more about.
> – Sammie G., Fourth Grader

Adams High School English teacher Julie Reese, a National Board certified teacher, says she wants to do her best to stay current with technology and educational strategies proven to help her students as 21st century learners. This semester, Mrs. Reese incorporated a technology-enhanced learning project with her True Stories students as they studied their true crime unit. The project focused on student choice, research and documentation skills, as well as presentation skills.

Students worked in small groups to choose an interesting true crime case and set out to determine the ways in which media bias impacted public opinion on the perpetrator. Students began by finding articles in the Michigan eLibrary databases to gain background information of the facts, as well as the media coverage of the case. Brenda Carlson, Adams information literacy specialist, worked with students to ensure they knew how to find, collect and cite reliable source information. Students practiced their annotation skills when reading the articles and ultimately cited this information when they wrote evaluations of the impact of the media coverage on the case.

Mrs. Reese stated that she "was able to reinforce research and presentation skills taught in our composition courses in order to help students learn the importance of synthesizing the information gained during research in order to develop a comprehensive understanding of their topic."

Students collected their learning in a shared Google Doc "Casebook" which included a variety of tasks (source annotations and evaluations, a timeline of the case, reflections/understandings gained by watching a documentary and listening to a case-based podcast, and a summary of their research) completed over a five-week period. Finally, students presented their case and findings to the rest of the class in a Slidedeck presentation.

> "It was very interesting to look into a case I didn't know about previously and to see how the media framed the criminal through the use of biased name calling and selection of details. The impact on what we learn and what is omitted by the media is very influential on public opinion."
>
> – Junior, Maggie L.

05 Creative Communicators

As creative communicators, students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.

> I love being on camera with my friends and classmates. We get to create videos I never thought we could do.
> -Samantha

In a flurry of raised hands and positive energy, a group of fourth-grade Virtual Campus students huddle together around a large whiteboard. To an outsider, it might look like they are standing inside a Minecraft game, surrounded by a sea of blocky green rectangles. In reality, they are meeting together inside the new recording studio at Virtual Campus. They, along with their teacher John Leclair, have been planning this moment for months: a newscast featuring happenings around the Virtual Campus, produced by students, for students.

While the morning announcements are a steadfast tradition at some brick and mortar schools around Rochester Community Schools, the Virtual Campus students know that digital content creation, like the morning announcements they are currently producing, is a key element in establishing a positive culture and climate at their online school. Over the course of the year, students have been singing guitar renditions of their class “Friday'' song, stepping into history as wax museum figures, and watching their principal, Jeff Frankowiak, launch carefully constructed egg containers off of the school roof.

Detailing these opportunities not only shares the learning joy they are experiencing, but also informs the younger students what they can expect in years to come (And let’s face it, who wouldn’t want to see a teacher singing “Monster Mash” dressed as a taco?)

Using Chromebooks, WeVideo, strategically placed recording studio lights (funded by a generous donation from the Rochester Community Schools Foundation), and a whole lot of enthusiasm, the group highlights these and other creative happenings. Once they have planned their outline, scripts and completed recording, the team of student anchors passes the baton to their group video editor, who uses copyright-free stock video images and audio tracks to enhance the production. When the final edits are complete, Mr. Leclair will share it with the Virtual Campus leadership team to include on the schoolwide Brightspace homepage and in the weekly school newsletter.

When asked about the experience, LeClair explained, "I wanted to teach video editing because I noticed an overwhelming amount of creativity oozing from these students. I knew I needed to find an outlet for them to work together and give them the freedom to create. Being at Virtual Campus, I wanted my students to have the ability to take an original idea and end with a finished digital product that could be done at school or at home.

Throughout the process, I've also seen a tremendous amount of pride as students share their videos with one another. It is truly amazing to see what these fourth graders are able to come up with when given the freedom to create."

Students have not only had the opportunity to learn digital technology skills, but have also had the chance to engage in the process of planning, writing, speaking, and revision, all of which are applicable skills in the area of digital production and literacy development.

> "It is a really good experience because not everyone gets to learn how to do this.
> -Eryn"

Virtual News Network

Click on the embedded link or scan QR Code with your device to watch one of the virtual news episodes.

Creating and sharing visual content is a staple in today's culture and developing students' visual storytelling skills is essential. At Hamlin, third- and fourth-grade students in Mrs. Gress' media class recently spent time creating book trailers to share with their classmates and colleagues in other grade levels. This project started by analyzing book trailers put out by book publishers and book lovers alike. Once students were familiar with how book trailers worked, students selected a book they knew well and wanted to recommend to someone else. Next, came the planning. Using a storyboard, students planned out what they wanted to include in their book trailer. This included both the words and visual content. Finally, students used Canva to make their book trailers. Canva allows students to easily incorporate visual content like videos, images, animations and other graphics. The book trailers turned out great.

Student Book Trailers

Click on the embedded link or scan the QR Code with your device to check out the book trailers.

Engagement was extremely high during this project and students have had a great time watching each other's book trailers. The book trailers have also been posted in their library catalog so other students can access them. One student, a fourth grader named Ben, was so excited after learning the Canva tools that he started creating his own movie. A digital storyteller is born!

At Delta Kelly Elementary, fourth-grade students got to experience what it was like to be a podcaster. Instead of doing a traditional research paper, fourth-grade teaching team Louise Mccarty, Alessandra Potter, Colleen Monroe and Elizabeth Abbott decided they wanted their students to explore digital storytelling through podcasting.

In February, students researched a famous person for Black History Month. Using the notes from their research, students recorded their first podcast episode in WeVideo.

Each podcast episode has its own link, so students generated QR codes to share their episodes with their families and the rest of the school. "It is important to us that students are able to share their learning with an authentic audience," the teaching team said.

Duke Ellington by Lussien

click on the embedded link or scan the QR Code with your device to listen to an episode

Students then reflected on their podcasts. They were asked what went well and what they would change the next time. "This was their first time using this format and we knew it was essential students reflect on the experience in order to grow as podcasters. Students were very reflective and came up with some amazing ideas," Monroe said.

For their second podcast episode, students interviewed someone at the school. Before recording, students read through their reflection of their previous podcast and noted what adjustments they needed to make. "I noticed a lot of improvement from the first episode to the second episode. Students did a great job!" Monroe said.

Interview Episode by Eleanor

Click on the embedded link or scan the QR Code with your device to listen to an episode.

When asked if this is something they plan on continuing, Monroe shared, "This is definitely an experience we will be continuing and expanding on next year!"

Expedition Education: Learning Reimagined

It all started with a question: "What is the primary purpose of school?" On April 13, over 3,200 students in grades 6, 7, and 9 engaged in Expedition Education: Learning Reimagined, a student-centered online learning opportunity connected to student passions and interests.

The experience was divided into two main parts: a live, synchronous video stream to frame the day's learning objectives and create shared connections among participants, and a self-guided, asynchronous learning component, designed to encourage student participation and the ability to self-differentiate based on their areas of passion and interest.

During the livestream, students heard from Jeff Frankowiak, principal of the RCS Virtual Campus and ACE, about the importance of making the most out of their time as students at Rochester Community Schools. This was followed by inspirational messages from celebrity experts to try new things and explore your passions.

During the self-guided portion, students followed an expedition guidebook designed by Julie Rains, Virtual Campus technology program consultant. This included sharing what the purpose of school could be, identifying their needs and values, and then learning from community experts. Experts included business owners, law and public safety professionals, video game designers, health science professionals and educators.

Learning Reimagined Website

Click on the embedded link or scan the QR Code with your device to visit the Learning Reimagined website.

The learning experience ended with students teaching other students about their passions. By leveraging Flipgrid and Google Forms, students were able to be co-teachers and creatively share their knowledge with a wide audience. "It was powerful to go through the Flipgrid videos and see students comment and make connections with one another."

The biggest takeaway was students expressing joy in learning and feeling empowered to learn about their passions. The team designed a follow-up experience for the students which conveyed their ideas were heard and it featured a brief showcase of several student submissions from the program. Students were also provided several options on how to continue their explorations on leveraging their experience in Rochester Community Schools to connect to their passions.

Learning Reflection and Recap

Click on the embedded link or scan the QR Code with your device to hear students reflect on the learning from the day.

> I liked that we were able to go at our own pace, and explore what we were interested in.

> I liked learning about some things I've never thought about before and better exploring who I am, and what I want to be.

> I liked that it was more of an independent assignment that we could work at our own pace with. I enjoyed that it was interactive, because it allowed us to meet new students from other schools and listen to their perspectives.

> I liked how successful people in their industry were telling us and encouraging us to go try new things.

At Reuther Middle School, students in Eva Hensley's eighth-grade language arts classes leveraged a variety of digital tools, styles, and formats to communicate action plans based on their research topics.

Hensley shared, “Student voice and choice are integrated in every aspect of this assignment. Students can choose what topic they want to research, how they want to work (in a group or alone), and what methods they want to use to inform the public about their research findings and action plans.”

The research project culminated with a community celebration where students presented their findings to an authentic audience and challenged listeners to take action. Students created websites, podcast episodes, Google Slides, posters, and more to share their research.

One student shared, "I liked how I had a choice in deciding what to research and how to share it. It's important that kids have a say in how we learn."

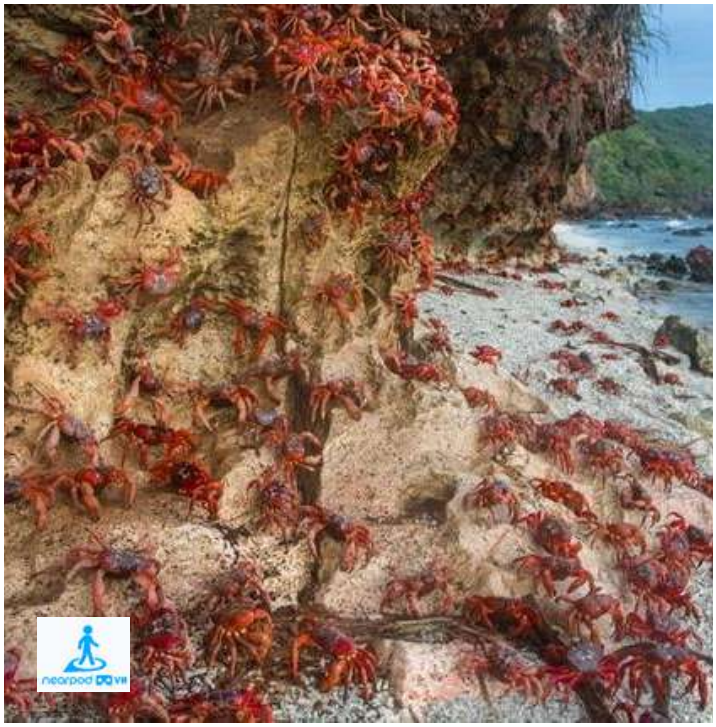
Similarly, Rochester High English teachers Ashley Painter, Renee Kavalar and Claire D’Addario are reframing how they assign research projects to their sophomores. Instead of writing a traditional research paper, students are creating podcast episodes on their topics.

The project still includes researching sources, taking notes, and developing an outline, but the format in which the information is shared is different. Students are exploring the power of digital storytelling and creatively communicating with an authentic audience.

D’Addario shared, "I was so excited to try something new and collaborate with colleagues to develop a more creative project in Language Arts 10. Not only have our students learned valuable research skills, but they have also learned how to communicate and express their thoughts out loud. Recording all the elements of a podcast, including music and sound effects, has been so fun for them and I cannot wait to continue this project in the future!"

06 Global Collaborators

As global collaborators, students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.



Virtual field trips are an easy and fun way for students to go beyond the traditional textbook and explore the actual places they are learning about. Through the use of Nearpod and Google Earth, Mr. Golden's fifth-grade students at Brewster became modern explorers. Both of these platforms have pre-made explorations teachers can upload right into Google Classroom.

Mr. Golden uses these tools with his social studies and science lessons. While studying the Revolutionary War, students took a Nearpod trip to Philadelphia and were able to see the room where the Declaration of Independence was signed and many other historical spots connected to the War. "It's amazing to see such high interest and excitement when we take our trips," Golden said.

Golden also uses these tools to introduce students to places they may never get a chance to go to, like Christmas Island for the great crab migration. One student shared, "These trips let us go to some really cool places!"

Origins: The Stories of Us is a student-authored magazine documenting the human journey. It started as a classroom assignment and grew into a cross-curricular and across-schools project.

The goal of the project is to amplify the voices of immigrant-origin students to share their unique experiences and stories with an authentic audience in order to build empathy and break down stereotypes and biases.

Students at Reuther Middle School wrote, edited and designed the magazine pages using a variety of digital tools. The magazines were then distributed to schools across the city and county. As students saw the magazine in their media centers or in their classrooms, they reached out to the Origins team to submit their own stories.

Aadhya, a student at West Middle School, saw the magazine on the shelf in her media center and instantly knew she wanted to contribute her family's story. "It was such an inspiring opportunity for me," Aadhya said.

It's been incredible to see students across the district connect with one other and celebrate their stories of migration.

Origins: The Stories of Us

Click on the embedded link or scan the QR Code with your device to read the issues of the magazine.

> Being in Origins expanded my view of the world as a whole and how I fit into it. Through writing articles and conducting interviews with my parents, I got to understand them a lot better, and began to piece together their narrative with my own. I am so glad I got the opportunity to be a part of Origins, and I truly believe it has enriched my knowledge of culture.
>
> -Rishika B.

A Digital Mash-up: Merging Science, Technology and Making

A light rain begins to fall, sprinkling students, families, and teachers gathered outside as ACE high-school teacher Jeff Fosnaugh and fifth-grade Virtual Campus teacher Brian Peterson gently drop a flowering dogwood tree into place. Peterson leans over to get a better angle for the virtual students participating from home, closely watching the process over a video stream captured from Peterson's cell phone. Both teachers, avid science enthusiasts, take turns narrating the steps of the tree-planting process and their reasoning behind each step.

In between scoops, the fifth-grade students physically present share their appreciation for this learning opportunity. Not only did they have the chance to learn about trees from the lens of a biologist, but they also had the chance to leave a legacy behind for students in years to come.

Addison, a fifth grader in Mr. Peterson's class, shared, "The tree that we planted at the Virtual Campus is a memorial. It is a memory that we should always keep with us for it is a tree of new beginnings."

This experience was part of a cross-school partnership between the ACE program and the Virtual Campus, a growing tradition that is becoming part of the regular fabric of each of these learning pathways. Fosnaugh, Peterson, and fifth-grade teacher Lauren Pruchnic linked together, using their love of science, technology, and the environment as inspiration for a digital learning mash-up, a unique form of education at the Virtual Campus that includes both hands-on learning and digital tools. Then, Pruchnic seamlessly transferred the Zoom meeting from the classroom IFP to Peterson's cell phone using the "Switch" button

option, creating a mobile virtual classroom in the process. From there, students traveled outside for the tree planting and then engaged in planting using ice cream cones, soil and flower seeds to create their own environmentally friendly seed-starting kits.

As an added bonus, students were invited upstairs to visit with the baby chicks housed in Mr. Fosnaugh's ACE science room to discover more about the life cycle of plants and animals and the ways different ecosystems support one another. Blending the passions and interests of both teachers and students created a meaningful learning opportunity that students will always remember. Addison commented, "As for the chicks, they will grow as we will grow into who we dream to be."

When asked about his takeaways from the experience, Mr. Peterson explained, "One of the many reasons the RCS Virtual Campus is special is the fact we have a 'home base' that includes not only a makerspace that can be used to meet in person to engage in hands-on learning, but we also have amazing outdoor space to further student learning. It was a complete pleasure to host a tree-planting event to celebrate the importance of Earth Day, but we were also able to collaborate with ACE to participate with a hands-on learning experience with baby chickens. It was a joy to not only have students in person to enjoy these learning experiences, but to also have students join virtually. Learning is not a cookie-cutter experience but can take place in numerous ways and that is one of the many benefits of the RCS Virtual Campus."

Leveraging digital tools during this learning experience helped to broaden student perspectives and enrich their learning as they collaborated with learners across grade levels and locations.

Second- and third-grade students in Andrew Lewis' class at Delta Kelly explore examples of math in everyday life. In morning meetings, students travel around the world as they watch a Great Big Story. Great Big Story videos are short documentaries that focus on a variety of topics such as the human condition, planet Earth, frontiers and origins.

"I tie in the Understanding Map from Project Zero in each morning meeting. We make sure to use the 'consider different viewpoint' lens and think like mathematicians," Lewis shared.

Students use Google Slides to take notes on all the ways they see math happening while learning about different places around the world. Students then share their notes with the entire class. Students also go around and model this same lesson to other classes.

While watching the Great Big Story on "Giant Sculptures Decorate North Dakota's Enchanted Highway," one student noted, "I see math when he talks about the size of the art pieces. He talks about math when he mentions how much pipe he uses for the one creation."

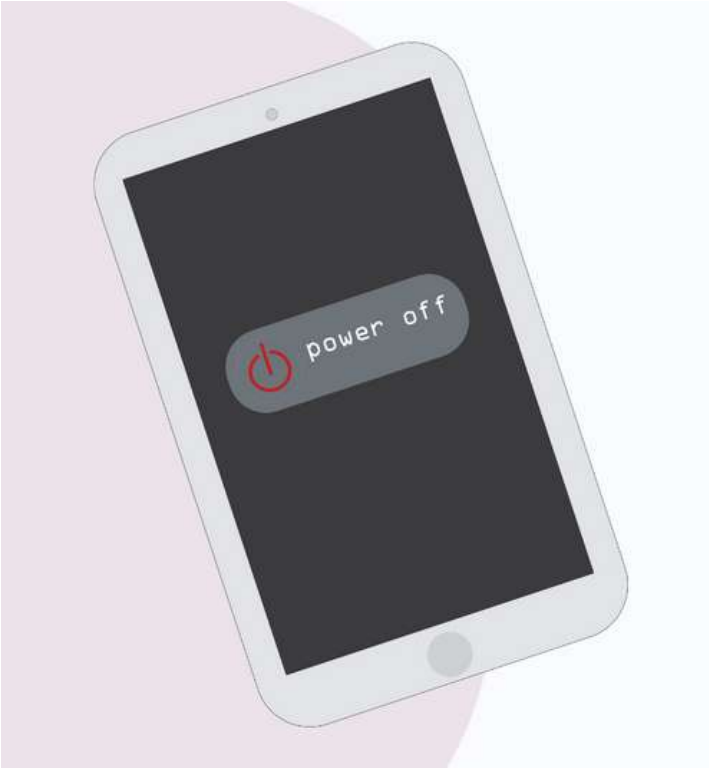
By considering different viewpoints and thinking like mathematicians, students are seeing just how important math is in every aspect of our lives.

Google Slides is also being leveraged by two teachers at Stoney Creek High School. In Colleen Cromie's Advanced Placement (AP) German class, students used a collaborative Google Slides tool to create an album on their lives. Each student filled a slide with songs that best represent their lives, and collectively, each hour created an album. Students were then able to compare their music style to those of the German-speaking world after studying the origin and influence of the German hip-hop scene.

English teacher Beth Blain leverages Google Slides to do hexagonal thinking with her ninth-grade students. This type of thinking allows students to make connections between vocab terms as they read texts from different genres and mediums to analyze characters and speakers. Rather than matching words to definitions on a static worksheet, these students draw connections and add reasoning with evidence, demonstrating their understanding of these terms within their unit of study.

07 Digital Citizens

> As digital citizens, students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.



The third week of October is Digital Citizenship Week, a week designed to help students reflect on their digital lives. This year, students across the district worked together to create a Media Balance & Digital Well-Being Campaign.

Students in Adrean Bedard's class at ACE worked together to create the campaign video and flyers. The students used WeVideo to create a promo video to encourage students to have a more balanced digital lifestyle. K Louca, a junior at ACE & OSTC (Oakland Schools Technical Campus), used Adobe Illustrator to design a flyer to encourage students to participate in a digital detox or unplug day.

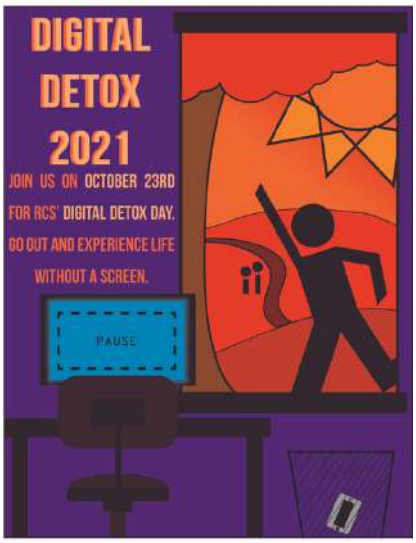
Other schools helped to join in on the campaign. Students from the VH Today Morning News, Hart STUCO, and West mentors created short videos filled with strategies on how to find media balance. These videos were added to our Digital Citizenship Week website as well as shared with all the schools.

"It was great to see the students engaged in teaching other students about the importance of digital balance," Ms. Bedard said.

Louca shared, "I like how I was able to use my love for art to help make a difference in our community."

Media Balance & Digital Well-Being

Click on the embedded link or scan QR Code with your device to see the content created by students.



Thank you to all the educators who shared their learning stories.

Michelle Guest, 1st grade Teacher
Baldwin Elementary School

Jennifer Spencer, 1st grade Teacher
Baldwin Elementary School

Angela Schmitt, 1st grade Teacher
Baldwin Elementary School

Brooklands Teachers
Brooklands Elementary School

Jennifer Diemert, STEM Teacher
Van Hoosen Middle School

Tammy Posner, Information Literacy Specialist
Hugger Elementary School

Yvonne Kuhlman, Information Literacy Specialist
Hugger Elementary School

Shelby Vaughen, 5th grade Teacher
Hampton Elementary School

Kathryn Charbonneau, 5th grade Teacher
Hampton Elementary School

Jolene Plotzke, Music Teacher
McGregor Elementary School

Lynnette Teller, Information Literacy Specialist
Meadow Brook Elementary School

Chad Zwolinski, History Teacher
Rochester High School

Chris DeVantier, Science Teacher
Hart Middle School

Whitney Marshall, Information Literacy Specialist
Long Meadow Elementary School

Margaret Rainwater, Information Literacy Specialist
North Hill Elementary School

Angela Suwalkowski, 4th grade Teacher
Musson Elementary School

Wendy Coin, 4th grade Teacher
Musson Elementary School

Ginnie Holloway, History Teacher
West Middle School

Kaitlyn Axford, 4th & 5th grade Teacher
University Hills Elementary School

Julie Reese, English Teacher
Adams High School

Brenda Carlson, Information Literacy Specialist
Adams High School

John Leclair, 4th grade Teacher
Virtual Campus

Amber Gress, Information Literacy Specialist
Hamlin Elementary School

Louise Mccarty, 4th grade Teacher
Delta Kelly Elementary School

Alessandra Potter, 4th grade Teacher
Delta Kelly Elementary School

Colleen Monroe, 4th grade Teacher
Delta Kelly Elementary School

Elizabeth Abbott, 4th grade Teacher
Delta Kelly Elementary School

Jeff Frankowiak, Principal
Virtual Campus & ACE (Alternative Center for Education)

Julie Rains, Technology Program Consultant
Virtual Campus

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Rochester Community Schools

Eva Hensley, Language Arts Teacher
Reuther Middle School

Claire D'Addario, English Teacher
Rochester High School

Renee Kavalar, Special Ed Teacher
Rochester High School

Ashley Painter, English Teacher
Rochester High School

Ryan Golden, 5th grade Teacher
Brewster Elementary School

Jeff Fosnaugh, Science Teacher
ACE (Alternative Center for Education)

Brian Peterson, 5th grade Teacher
Virtual Campus

Lauren Prunchnic, 5th grade Teacher
Virtual Campus

Andy Lewis, 2nd & 3rd grade Teacher
Delta Kelly Elementary

Colleen Cromie, German Teacher
Stoney Creek High School

Beth Blain, English Teacher
Stoney Creek High School

Adrean Bedard, English Teacher
ACE (Alternative Center for Education)

Lisa Mele, Information Literacy Specialist
Van Hoosen Middle School

Kristi Trimboli, Information Literacy Specialist
Hart Middle School

Amber Golden, Teacher & STUCO Advisor
Hart Middle School

Laura Reinke, Teacher & STUCO Advisor
Hart Middle School

Becky Campbell, Teacher & Mentors Advisor
West Middle School

Dustin Coleman, Teacher & Mentors Advisor
West Middle School

Justin Carmichael, Teacher & Mentors Advisor
West Middle School

LEVERAGING THE DIGITAL

STORIES OF LEARNING AT ROCHESTER COMMUNITY SCHOOLS

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