## Session Title

A Picture is Worth a Thousand Words

## Presenter:

Erik Wade

## Elevator Pitch

The use of emojis and images when we message has become second nature. During this session, we will take the idea of using images to represent words when we message and apply it to creative writing. We will start a quick review of the writing structure, then look at the website Flaticon and discuss image attribution, and then move to work with text and images in Google Docs and finish with time to create.

## Materials

Any device with access to the internet (disclaimer: This session will work on an Ipad but the steps are different then a computer. If there are Ipad schools interested, they are welcome to join and I will adjust) Google docs, access to the website flaticon.com

## Overview

During this session, students will practice their creative writing skills in a unique way. Rather than using only words to write a story we will use words and icons from the website Flaticon to creatively write a story. The session will start by reviewing the parts of a story, then we will look at Flaticon and discuss image attribution, and end with how to quickly insert an image into the text of a Google Doc. The remainder of the time will be for students to write their stories.

## Session Title

Animate a Message in a Bottle with Canva

## Presenter(s)

Mia C. 11, Bri T. 12

## Elevator Pitch

Send a message to the high seas! Use the tool Canva to create an animated message in a digital bottle.

## Materials

Access to Canva.com

## Overview

In this session will learn how to use Canva to design animated graphics and messages.

## Session Title

Animation Creation with Google Slides

## Presenter Name

Kern Kelley, Jared L., Aden W. (Nokomis Regional Middle/High School)

## Elevator Pitch

Students will learn how to use Google Slides to create custom animations.

## Materials

Devices, Access to Google Slides

## Overview

In this session, we'll head to the beach by using Google Slides to create an animation. Customize the scene and relax on the beach!

## Session Title

Aquatic Audioscapes: Creating the Sounds of Water

## Presenter Name

Tracy Williamson

## Elevator Pitch

Did you know that you can learn a lot about a place just by listening to the sounds there? The sounds around us can make us feel relaxed, comfortable, excited or curious. Sounds can help us make connections to past experiences and give us clues to learn about new places. In this session you will use music and sound effects to create a soundscape for your own imagined water world! This fun hands-on project will leave you ready for an aquatic adventure!

## Materials

Devices, Headphones, Notetaking App (Google docs, Stickies, Notes, Pages etc) or Scrap Paper and Writing Utensils
iPads: Garage Band
Chromebooks: Soundtrap (sign up for account ahead of time)
MacBooks: Garage Band or Soundtrap (sign up for account ahead of time)

## Overview

In this session students will create a soundscape of music and sound effects to represent a place associated with water. We will have an overview of what a soundscape is, how we experience sound around us and how soundscapes are used in the real world with some examples. Students will imagine a place that they have been to or a new place that they would like to go to that has some connection to water: a river, lake, ocean, pool etc. Students will brainstorm all the things in their environment and the sounds that they would hear there. They will then use Soundtrap or Garage Band to layer all those sounds together and add music to create an ambience or emotion to represent how they feel in their imagined place. At the end students will have the skills to create their own soundscape, understand how soundscapes are used in the real world and have some resources for sound editing tools, copyright-free music and sound effects to use in future work. They will also have their soundscape to listen to any time they want to revisit their created world. If we have additional time, we will bring our soundscapes into Canva or iMovie to add imagery.

## Teacher Expectation

The teacher should preview the provided materials and ensure that students have access to Garage Band (iPad) or Soundtrap (Chromebooks) prior to the Conference. Students with MacBooks can use either Garage Band or Soundtrap. If using Soundtrap, students must sign up for a free Soundtrap account prior to the conference. Garage Band should already be on Apple devices but may need to be updated if students have never opened it. During the Conference session, the teacher will connect the whole class to the session via Zoom and help coordinate student questions through the chat. Teachers may also need to remind students to use headphones and circulate to ensure that students are engaging in the project.

## Session Title

Astrophysics in Minecraft

## Presenter Name

Brooke Bolduc, Kendra Hansen (University of Maine & Maine Robotics)

## Elevator Pitch

Over the past decade, Minecraft quickly grew to be one of the most popular video games in the world, and it can be utilized for much more than building houses and villages or fighting monsters. In Astrophysics in Minecraft camp, we will explore Minecraft worlds that simulate real astrophysical phenomena. Has the science behind the movie Interstellar intrigue you? Or have you ever wondered what terraforming Mars would be like? Or what if the Earth had no moon? Two moons? What criteria need to be met for a planet to be habitable? What other celestial bodies can be simulated in Minecraft?

## Materials

Computers Provided (Minecraft Java Edition and mods preloaded)

## Overview

During the session, we will go through a brief presentation about what the Astrophysics in Minecraft summer camp entails, which includes a few educational slides on black holes, white holes, and wormholes. We will also physical demonstration of gravity and the space-time field before the participants log into our Minecraft server and explore some of the worlds where we'll collect data and make observations during summer camp. A handful of these worlds include: Mars, the Moon, Kepler-186f, Gliese-436b, Trappist-1e, a Brown Dwarf, Earth with No Moon, Earth with an Earth-sized Moon, and a Black Hole.

## Session Title

Be Like Water: Infusing Your Ideas into Video Games

**Presenter:**
Jon Graham

## Elevator Pitch

The ways for students to share their knowledge can take many forms in the classroom – a written report, a video creation, an artistic depiction, but how about a video game? Learn how to use the app Bloxels and how you can transform your ideas in minutes. We will test out this process by taking the water cycle and turning it into a fun 8-bit game.

## Materials

Devices, BloxelsEDU account (provided), Means to record/share walkthrough of game (ex. Zoom, Screencastify, Quicktime)

## Overview

In this session students will create a video game that demonstrates parts of the water cycle. They will identify the aspects of the cycle that they want to highlight, this could be a simplistic circular game or a more complex game with multiple pathways. Part of the session will demonstrate the basics of the app, but students may find ways to incorporate other aspects of Bloxels. The goal of the day is to have a prototype of a game that can be captured and shared.

## Teacher Expectation

The teacher could review the water cycle in its simplest form (evaporation, condensation, and precipitation), but also share more complex aspects (check out this article from NOAA). They should ensure that students have access to the Bloxels app (for iPads) or the website (for all other devices) prior to the Conference. The lead teacher will be provided with account information prior to the virtual conference and account information will be provided on the day of the in-person conference. During the virtual conference sessions, the teacher will connect that whole class to the session via Zoom and help coordinate student questions through the chat. They may also need to help students with capturing and sharing their creations.

## Session Title

Creating Pixel Art with Google Sheets

## Presenter Name

Joshua Schmidt

## Elevator Pitch

Pixel art is a form of digital art where images are designed with only pixels as building blocks. It is commonly seen with low-resolution graphics in video games and retro-style art. Normally, designing pixel art means using coding software and programming, but we can achieve high quality pixel art with only Google Sheets! This session will show you how!

## Materials

Either a PC, Mac, or Chromebook can be used for this session. An iPad is possible to complete this session, but a keyboard is strongly recommended if a tablet is used. Access to Google Sheets, the ability to join a Zoom call, and access to YouTube are all required for this session.

Access to PixelIt (helpful but not required). Access to Code.org and accounts on Code.org (helpful but not required)

## Overview

This session will start with understanding what pixels are and how images are rendered on computers. From there, we will look at how Google Sheets uses cells to simulate the pixels on a screen. Finally, students will learn about conditional formatting in Google Sheets to create their own images with their own colors. A template will be provided to students to begin creating their own pixel art following the same set of directions.

By the end of the session, students will have created their own pixel art images on a 20 x 20 grid, and they will be shown how to export these images to use whenever they want. We will also explore different ways to upgrade pixel art with more powerful technologies like AI and coding. All you need to participate is a Google Account, a device with Internet access, and a bunch of excitement!

## Teacher Expectations

The teacher should make sure students have a Google account ready to go before this session. A template for the students to copy will be provided. From there, the teacher will simply be responsible to aid students on basic technological challenges and communicate more difficult questions to the session facilitator.

## Session Title

Critical Thinking/Problem Solving with SpheroEDU

## Presenter Name

Mary Learned and students from Tripp Middle School

## Elevator Pitch

FOUR! What does it take to design a mini-golf course that the Sphero Bolt can be used to play? Design your own course, figure out how to make a "par" for individual holes, and use block coding with the Sphero Bolt robots. Challenge your classmates to complete your hole at par or lower!

## Materials

Devices, SpheroEDU app, Spheros will be supplied

## Overview

In this session, students will combine critical thinking skills (some research and inferring knowledge) with coding skills as they design a golf hole and then play the hole to define the par of the hole. This will be taught using the SpheroEDU app and being shown holes that have already been created in a classroom setting with students. Students will walk away with a blueprint for their own hole, using materials we provide, as well as being engaged in playing the holes that are already designed.

Session Title:
Digital Collage

Presenter:
Kate Meyer

Elevator Pitch: Take a deep dive into creating a series of digital collages using Google Slides! In this session, you will learn how to use Google Slides to combine images and words to make digital collage art! I will show you some of the more advanced Google Slides image editing options and give you time to create and explore.

Materials:
Computer or tablet, access to Google Slides (students who are using iPads will need to make sure they can access Google Slides via the web - not through the Slides app), access to www.remove.bg, access to YouTube; access to Unsplash and Pixabay recommended (but not required)

Session Description:
In the first portion of the workshop, students will learn how to transform a space-themed page of text into a work of art that captures the overall theme or mood of the piece by using selected portions of the text combined with collage elements, known as blackout collage. This portion of the workshop will last approximately 30 minutes and will include: a ten-minute guided minilesson on the skills needed to create their piece and twenty minutes to practice.

In the second portion of this workshop, students will build on their collage skills to create a more involved digital collage that illustrates a quote of their choice from a quote bank of quotes from astronauts. This portion of the workshop will last approximately 30 minutes and will include: a ten-minute guided minilesson on the skills needed to create their piece and twenty minutes to practice.

The final 25 minutes of the workshop will be set aside to give students a chance to refine one of their pieces that they will then add to a shared folder or slide deck for us to publish.

The skills learned and practiced in this session can be used by students and teachers to up their Google Slides game and allow them to see how easy it is to create engaging art using Google Slides. Teachers will also learn a couple of strategies (blackout poetry and digital collage) that are transferable to most subject areas.

Students will learn and practice the Google Slides skills, including:
Finding and selecting images that are free to use
Cropping images
Formatting images, including changing transparency and recoloring
Working in layers

Searching for and using: transparent images, silhouettes, and patterns
Removing backgrounds from images

## Teacher Expectations:

Teachers are expected to support students in the classroom while they work and to be ready to relay any questions the students might have via the chat in Zoom. Students who are using iPads will need to make sure they can access Google Slides via the web (not through the Slides app).

## Session Title

Dive into Creativity: Using the New AI features in Canva to Spark your Creative Side

## Presenter Name

Martha Thibodeau

## Elevator Pitch

Are you tired of making boring presentations with the same old templates? Let me introduce you to Canva's new AI features that can take your presentations to the next level! With Canva's AI-powered design tools, you can create eye-catching graphics, pick color schemes that complement your content, and even get suggestions for images that match your message. Plus, you'll be learning about the latest technology that is shaping the future of design and marketing.

## Materials

You will need a device with a web browser and a Canva educational account. The basic Canva accounts are free to all teachers and students.

## Overview

Get ready to impress your teachers and classmates with your new and improved Canva presentations. This session will have three parts with work time during each section.

- Magic Design – We will use this new feature to create a slideshow on an ocean related topic of the students' choosing. From sea animals to plastic waste issues, the students will create a presentation in a matter of minutes. We will discuss the positives and negatives of this method of AI generation of materials and emphasize that it is a starting point for creating powerful presentations.
- Image Manipulation – This section will focus on background removal, Magic Eraser, and Magic Edit. These three image manipulation tools will help students create interesting and useful graphics in Canva that they can use in many different projects.
- Text to Image – Text to image generates images from text that you input. Want a surfing panda in a watercolor paint style? Text to image will do that for you. Review and Q&A

## Session Title

"Guess What" Code Textbased Trivia Game with Python (Block 1 Only)

## Presenter Name

Dr. Laura Gurney, Lilly Gurney, Abby G.

## Elevator Pitch

Using an online coding environment, participants will create a text based trivia game using python. How corny can your questions and answers be? What challenging questions will you ask? Build your own text game.

## Materials

Devices with internet access

## Overview

This session will teach students in an online Python environment, where they will create a text based trivia game through coding.

## Session Title
Intro to TinkerCad Modelling

## Presenter Name
Kern Kelley & Toni Barboza

## Elevator Pitch
Students will conduct the session. Students have multiple opportunities to practice this session both virtually and in person.

## Materials
Devices, Access to Tinkercad.com

## Overview
This session will show students will learn how to use TinkerCad to create 3D models and customize with share generators. In this session we'll introduce 3D modeling with TinkerCad and show you how to visualize it with Legos or Minecraft in TinkerCad!

## Session Title
Lost at Sea: Navigating the Creation of Digital Escape Experiences

## Presenter Name
Nicole Karod

## Elevator Pitch
Get lost at sea creating a digital escape room. This will be an adventure you will not soon forget as we sail through the learning how to create a digital escape experience using Google Slides and Google Forms. We'll start with an ocean theme so you learn the tricks, and then you'll be ready to create your own. This would be a great way to show your teacher what you know about a topic!

## Materials
All you need is a computer and access to Google Slides and Google Forms.

## Overview
This session will have four parts...

1. Students will experience a very short digital escape room to get an idea of what they look like and the overall ocean theme.
2. Once students have experienced a digital escape experience we will talk about what it entails. We'll talk about creating a story or using a theme and puzzle creation.
3. In the third part students will start creating their own escape room using Google Slides. We will create a home page for their escape experience and one puzzle. Students will add backgrounds, images and links to make a working escape experience.
4. Lastly, students will bring their slides together by creating a form to go along with the slides. This form will be where students crack digital locks to escape the "room."

## Teacher Expectation
Teachers are expected to support students in the classroom while they work and to be ready to relay any questions the students might have via the chat in Zoom. Students who are using iPads will need to make sure they can access Google Slides/Forms via the web (not through the Slides app).

## Session Title

Model a Ship with TinkerCad CodeBlocks

## Presenter Name

Kern Kelley, Alex G., John D. (Nokomis Regional Middle/High School)

## Elevator Pitch

Students will learn how to use CodeBlocks within TinkerCad to create 3D models from code.

## Materials

Devices, Access to TinkerCad.com

## Overview

This session will show students how to use TinkerCad.com to code their very own boat! Students will utilize CodeBlocks to build and customize a 3D model and share it!

## Session Title

Offshore Weather Forecast

## Presenter Name

Yuhong Sun

## Elevator Pitch

Are you ready to create your own offshore weather forecast video with the green screen technique? Join me at the MLTI Student Conference on May 18th or May 25th. In this workshop, I will show you the basics of WeVideo, such as scripting, recording, green screening, picture-in-picture, voiceover, adding music, etc. Then you will have an opportunity to create your own weather forecast video to help Maine fishermen or sailors to start their day on the ocean. There is nothing more important than weather to sail offshore.

## Materials

Devices
WeVideo account in upgraded version or iMovie.
Notetaking App: Google docs or Keynote, Pages, etc.
Photo Booth or QuickTime Player or Zoom or Screencastify or Google Meet
Chromebooks or MacBooks or iPad or PC computers
Green screen or a big piece of green paper pinned on a wall.

## Overview

There are two parts to this session. In the first part, students will have an overview of the basics of WeVideo or iMovie, such as scripting, recording, editing, inserting music, voice-over, and especially green screen technology. We will learn what a green screen is and how it is used in video production. Shooting with a green screen is to shoot footage of a person or an object in front of a solid green color or blue, then removing or "keying out" that color in any video editing app, such as WeVideo or iMovie, and then adding the footage onto the background of one's own choice.

In the second part, students will work in groups to create an offshore weather report video of their own. They will first do research on the weather on that day or the whole week and brainstorm to develop ideas for their video creation. After that, students will be assigned to different jobs. For example, some students will write a script, some will shoot green screen footage, some will look for pictures or video footage from the Internet that will be used as their backgrounds, some will look for music or do voice-over, and some will assemble all together to make a good video. If students want to use the pictures or video clips of mine, the teacher can email me prior to the conference in order to get the access at yuhong.sun@maine.gov. Students will work together and perform all the tasks collaboratively.

At the end of the session, students will enhance their video development skills, develop their critical thinking and problem-solving skills, as well as improve their communicative and collaborative skills. In addition, they will have a better understanding of copyright issues and have some resources for video editing tools.

## Teacher Expectation

The teacher should preview the provided materials and ensure that students have access to the upgraded version of WeVideo or iMovie prior to the conference. Students who have MacBooks or iPads can use iMovies and Photo Booth. iMovie should already be on Apple devices but may need to be updated if students have never used it. During the conference, the teacher will connect the whole class to the session via Zoom and help coordinate students' questions through the Chat. Teachers may also need to remind students of using headphones and circulate to ensure that students are engaging in the project.

## Session Title

Programming Bolts with JavaScript

## Presenter Name

Chris Beckwith, Stephanie Fiske & 8th Graders

## Elevator Pitch

The Sphero Bolt robot has joined schools across Maine. Packed with features and sensors, Bolt can be programmed with blocks, but we're going to show you how easy it is to program Bolt using JavaScript! We'll start by drawing on the LED matrix, then on to the challenge of movement using a loop. Blocks are a great way to get started with coding, but learning to text-code is the next step. Join us and let's take the next step together!

## Materials

Devices, SpheroEdu App; Trailer

## Overview

In this session, students will learn about programming the Sphero Bolts using JavaScript to create an image on the LED matrix and to create a square path on the floor using a loop in their code, which is particularly challenging due to the nature of how the heading is handled.

## Session Title

Research Projects, Green Screens & You!

## Presenter(s)

Dr. Darren Akerman, Allison Braley, W. Foster (7), I. McSharry (8), M. Ruiz (5), R. Young (6) A. Valenzuela (8), P. Morrison (8), M. Robinson (8), S. Beter (8) (Bucksport Middle School)

## Elevator Pitch

This session will have the students and Dr. Ackerman discuss their projects and what they learned, and then demonstrate the recording and editing process that they used to create their video broadcasts. Attendees will have the opportunity to record and edit their own videos with or without green screens, and will learn from the students what the pros and cons that they learned along the way.

## Materials

Devices, WeVideo/iMovie for video editing

## Overview

The RSU 25 Gifted and Talented program recently had Bucksport Middle School students (5-8) conducted studies in collaborative teams to highlight various aspects of technology. Using a research-based approach the teams searched peer-reviewed articles, journals and other valid sources, and learned the rigorous process of citing sources in APA 7 (American Psychological Association, version 7), which is standard format for doctoral research and constructed their scripts with relevant graphics. After studying reportorial techniques, they developed video broadcasts highlighting their findings. The unit will introduce a forthcoming exploration of formal logic and debate with an emphasis on topical student choice and a thorough understanding of fallacies of relevance.

## Session Title

Sail the Virtual Seas with CoSpaces

## Presenter Name

Kern Kelley, Cole B. 12

## Elevator Pitch

Ahoy! Come navigate virtual reality with ships, sea creatures and whatever you can imagine. You will use the VR creation platform CoSpaces to make your own world!

## Materials

Access to CoSpace.io

## Overview

Students will learn how to use CoSpaces to code and create virtual reality experiences.

## Session Title

Spike the Bike - Learn to Code your Spike Prime Robot!

## Presenter Name

Keith Kelley

## Elevator Pitch

Students will learn how to code Lego Spike Prime Robot to compete in Bike racing contests.

## Materials

Devices; Bikes (Built with Lego Spike Prime Kits) will be provided

## Overview

In this session, students will work in small groups using pre-built kits to add accessories and coding blocks to make their bikes win their competitions. They will learn basic block coding and sensors around building Robots.

## Session Title:

Too Dark to See, Too Deep to Swim: Creating OptionQuests with Google Slides

## Presenter:

Jonathan R. Werner

## Elevator Pitch

Bring your creativity and an idea for an adventure where your reader makes choices. We'll embed Pixabay images and sound into Google Slides. Then add links that will take your reader down an infinite number of branching paths. Ready to Dive In?

## Materials

Any internet connected device that can access and edit Google Slides.

## Overview

"At a depth of 1000 meters, sunlight simply disappears. You passed 1000 meters an hour ago. And your journey down is only just beginning. Or is it about to end?" That's how our sample OptionQuest (or Choose Your Own Adventure) story begins, and this session will teach students how to bring their own stories to life using Google Slides. By the end of the session, participants will know how to turn their narratives into reader-directed adventures that turn their deep sea plots into visually appealing exciting gamified content they can share with friends.

## Session Title

Tour of the Advanced Structures & Composite Center (ASCC) at UMaine

## Presenter Name

ASCC Tour Guides

## Elevator Pitch

Come tour the ASCC is a world-leading, interdisciplinary center for research, education, and economic development encompassing material sciences, advanced manufacturing, and engineering of composites and structures.

## Materials

None required

## Overview

Since its founding in 1996, with support from the National Science Foundation, the ASCC has financially sponsored more than 2,600 students, received 120 patents, welcomed over 30,000 visitors, created 14 spinoff companies, and has been honored with more than 40 national and international awards for research excellence. Watch this video to see some of the innovative work happening at the ASCC.

## Session Title

Want to Learn How to Build an App and Share it with Your Friends?!

## Presenter Name

Kim Fish, Bryce (8)

## Elevator Pitch

Come learn JavaScript using block coding on code.org. We will share some student developed apps and set everyone up with an account. We will then show you where to go to create your own app and how to share it with your friends. No prior programming experience is necessary. You will walk away with the tools and some knowledge to begin creating an app!

## Materials

Devices, Access to code.org

## Overview

In this session, students will learn about programming the Sphero Bolts using JavaScript to create an image on the LED matrix and to create a square path on the floor using a loop in their code, which is particularly challenging due to the nature of how the heading is handled.

## Session Title

Water You Waiting For? Let's Make a Splash with Water Safety PSAs!

## Presenter:

Jaime Beal

## Elevator Pitch

Whether you're on the lake or the ocean, water safety is a part of Maine life. How can we be safe and help others too? In this session, learn how to make a Canva video to design a public service announcement about water safety.

## Materials

Devices, access to Canva.com

## Overview

In this session students will be making a public service announcement as a part of a MOOSE module on outdoor survival, specifically being on the water. To do the PSA, students will make a video using Canva. We will provide the research on water safety and students will provide the creativity.

## Session Title

"What did they say?" Using Textmining tools (Block 2 Only)

## Presenter Name

Dr. Laura Gurney, Lilly Gurney, Abby G.

## Elevator Pitch

Working with free text mining tools online to determine what themes, geographic locations, sentiments, word repetitions, etc. are within single or multiple text passages. Plan to use Voyant Tools to explore what text mining IS and can do.

## Materials

Devices with internet access

## Overview

This session will explore textmining and natural language assessment tools. Using free online text analysis resources, we'll examine passages using visual representations of themes, geographical locations, frequencies, word similarities and differences, emotional score, and more. Visualizing text to decipher and gain understanding beyond word-by-word reading allows us to 'see' the animated textual arcs revealed. Come visualize text for a deeper view!

## Session Title

Wicked Waves: Making a Big Splash with Wick Animation

## Presenter Name

Rob Dominick

## Elevator Pitch

Right now there is Disney animation in the process of being created... so that it can be ready in 3 to 5 years from now! When creating an animation, it takes 24 frames to create one second of video. In your own way, you can experience that animation process with Wick Editor. No, we are not going to spend the next 3 years making a movie, but we will spend some time learning the basic skills and vocabulary so that you can create your own short animation. Wick is a free browser-based animation tool that is available for use on a PC, Chromebook, tablet, or phone. In this session, you will learn how to create short, animated videos, GIFS and so much more!

## Materials

All you need is a PC, Mac, Chromebook or mobile device and the ability to access the Wick Editing Tool via the internet.

## Overview

This session will show the students the magic behind digital animation. We will discuss the process behind creating animated shows or movies and then explain how they will have the opportunity to create their own short animations using Wick Editor. Wick Editor has an easy-to-use interface with drag-and-drop and intuitive menus that allow users to quickly create animations and games without needing extensive coding knowledge. With Wick Editor, students will learn the animation concepts such as frames, timing, onion skins, and object motion. They will then be able to apply those concepts by creating their own short animation. Students can create their own objects and scenes while also having the option of importing any pre-made ones from Wick's "assets". While some students will be comfortable exploring the basic features of Wick Editor, there will also be an opportunity for others to dive deeper into the animation process by exploring the coding aspects. In the end, students should be able to complete their own animation as a final product from this session.

## Teacher Expectation

Teachers are expected to support students in the classroom while they work and to be ready to relay any questions the students might have via the chat in Zoom.