William Paterson University
College of Education

2023 SUMMER STEAM / ARTS INTEGRATION INSTITUTE

Date: Monday, August 28, 2023: 9:00 AM—2:00 PM, EST
Location: Zoom
Target Audience: PDS P-12 teachers and PIRs

The free virtual workshops will offer innovative ways to integrate the arts with other content areas.

Participants will earn 5 PD hours.
For more information or questions, contact the grant director, Heejung An, anh2@wpunj.edu

Registration:
https://forms.gle/gE4tN6erJcG5c52UA

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AGENDA

TIME	ITEM
9:00 AM – 9:10 AM	Sign-in: https://wpunj.zoom.us/j/91529377540
9:10 AM - 9:15 AM	Welcome Remarks: Amy Ginsburg
9:15 AM - 9:35 AM	Grant Highlights: Heejung An
9:35 AM - 9:40 AM	Break
9:40 AM - 10:30 AM	***Choose One:*** • **Workshop 1**: Artificial Intelligence (AI) Tools for Teachers (By Megan Donnelly, https://wpunj.zoom.us/j/93232729114) • **Workshop 2**: Gizmos Labs: Helping Students Build Meaningful, Real-World Connections Through Virtual Simulations (By Kelly Ennis, https://wpunj.zoom.us/j/91529377540)
10:30 AM - 10:35 AM	Break
10:35 AM - 11:25 AM	***Choose One:*** • **Workshop 3**: Biomimicry and Human Design: Using Observations of Hummingbirds Observation to Create An Imaginary Flying Machine (By Triada Samaras, https://wpunj.zoom.us/j/93232729114) • **Workshop 4:** The Water Cycle Through Art (By Patricia Kaminski, https://wpunj.zoom.us/j/91529377540)
11:25 AM - 12:15 PM	Lunch
12:15 AM - 1:05 PM	***Choose One:*** • **Workshop 5:** Galaxy: Scientific Observation and Creating a Planetarium Device (By Triada Samaras, https://wpunj.zoom.us/j/93232729114) • **Workshop 6:** Core Content and Music: Perfect Together (By Michele A. Flagg, https://wpunj.zoom.us/j/91529377540)
1:05 PM - 1:10 PM	Break
1:10 PM - 2:00 PM	***Choose One:*** • **Workshop 7**: Reach for the Skyscrapers: Building a Skyscraper and Telling the Story of Your Design/Build Using the Smithsonian Learning Lab (By Neil Grimes, https://wpunj.zoom.us/j/93232729114) • **Workshop 8**: Creating Soundwave Art (By Heejung An, https://wpunj.zoom.us/j/91529377540)

9:40 AM - 10:30 AM: WORKSHOP 1 | WORKSHOP 2 (CHOOSE ONE)	
WORKSHOP 1	**Artificial Intelligence (AI) Tools for Teachers** • *Presenter:* Megan Donnelly, Middle School Mathematics Inclusion Teacher, Woodrow Wilson Middle School • *Target Grades:* K-12 • *Description:* This workshop will provide teachers with an overview of a few different AI Tools that they can use in their classrooms. Participants will explore AI Tools that generate lesson plans and activities. Participants will also learn more about where and how to create AI generated images. Lesson ideas that incorporate student use of AI tools and AI generated images for arts integration will also be included. Participants will have opportunities to see these tools modeled and have a chance to create prompts themselves. • *Materials Needed:* Any computer with internet access, NJSLS, lesson objective, or district-provided curricula. • *Zoom Link:* https://wpunj.zoom.us/j/93232729114
WORKSHOP 2	**Gizmos Labs: Helping Students Build Meaningful, Real-World Connections Through Virtual Simulations** • *Presenter*: Kelly Ennis, 5th and 6th Science Teacher, Rockaway Valley School • *Target Grades:* 3rd-8th Grade • *Description:* In a science classroom, students can make real-world connections and obtain a deeper understanding of topics through experiments; however, not every topic in science can have a corresponding physical hands-on lab activity that is authentic. Therefore, certain aspects can be misconstrued, leading to inaccurate conclusions about the real-world phenomenon. Thankfully, with the advancements of modern technology, this problem can be ameliorated with the implementation of virtual lab programs. This workshop will focus on a guided discovery virtual lab program, Gizmos, and how to implement this tool into your science classroom for understanding various concepts. • *Materials Needed:* Computer, Gizmos account to view teacher resources (you can use certain simulations for free or sign up for a 30-day free trial) **If there is a list of attendees prior to the workshop, I can create a student account for them to use under my teacher account. • *Zoom Link:* https://wpunj.zoom.us/j/91529377540

10:35 AM - 11:25 AM: WORKSHOP 3 | WORKSHOP 4 (CHOOSE ONE)	
WORKSHOP 3	**Biomimicry and Human Design: Using Observations of Hummingbirds Observation to Create an Imaginary Flying Machine** • *Presenter:* Triada Samaras, Arts Integration Professor in Residence, William Paterson University • *Target Grades*: Grades 1-8 • *Description*: This hands-on workshop will explore the concept of biomimicry in human design. What does a hummingbird look like? What are the most interesting features of this bird and its unique flight patterns and maneuvers? Could a hummingbird inspire the design of an imaginary flying machine? What traits does the hummingbird have that might feature into a design of such a vehicle? Participants will engage in an observational activity of the hummingbird in which they will create quick sketches and notes. Next, based on these observations, participants will construct a device that might be used as an imaginary flying machine. • *Materials Needed:* Pencil, sharpies or colored markers, white printer paper (2-3) sheets, glue stick, elastics, paper clips, straws, masking tape, scissors. • *Zoom Link:* https://wpunj.zoom.us/j/93232729114
WORKSHOP 4	**The Water Cycle Through Art** • *Presenter:* Patricia Kaminski, Art Teacher, Joseph A. Taub School, Paterson Public Schools • *Target Grades***:** K-8 • *Description***:** This hands-on workshop will explore the water cycle through art. What is the water cycle? What does the water cycle look like? How can the art elements be used to create a visual water cycle? Participants will engage in 2 different activities based on the water cycle using basic supplies to create original artwork. Participants will engage in an observational activity of the water cycle in which they will create sketches and a 3D image of the water cycle. • *Materials Needed:* Pencil, white copy paper (several sheets) and /or white card stock paper, one paper plate, crayon, colored pencils or markers, black Sharpie or marker), Elmer's glue, ruler, scissors. • *Zoom Link:* https://wpunj.zoom.us/j/91529377540

12:15 PM - 1:05 PM: WORKSHOP 5 | WORKSOP 6 (CHOOSE ONE)	
WORKSHOP 5	**Galaxy: Scientific Observation and Creating a Planetarium Device** • *Presenter:* Triada Samaras, Arts Integration Professor-in-Residence, William Paterson University • *Target Grades*: 6h grade and up • Description: This hands-on workshop will explore the galaxy visually. What does the galaxy look like? What are the most interesting constellations and other features that can be seen with the naked eye, and/or a computer/cellphone? Participants will engage in an observational activity of the galaxy in which they will create quick sketches and notes. Next, based on these observations, participants will construct a device that can project specific aspects of the galaxy onto a wall or ceiling of a darkened room. • *Materials Needed*: Pencil, black sharpie, dixie cup or other similar disposable cup, push pins, white printer paper (2-3) sheets), glue stick, masking tape, cell phone with a flashlight feature. • *Zoom Link*: https://wpunj.zoom.us/j/93232729114
WORKSHOP 6	**Core Content and Music: Perfect Together** • *Presenter:* Michele A. Flagg, Arts Integration Professor-in-Residence, William Paterson University • *Target Grades:* K-8 • *Description:* This power point and discussion will explore how music can be integrated and support common core learning in the classroom. Participants will be given tips and links to lessons in math, science, social studies and language arts to enhance and imbed student learning. Discussion on how right and left-brain learning happens at the same time when the arts are utilized. • *Materials Needed***:** Pencil or pen and paper. • *Zoom Link:* https://wpunj.zoom.us/j/91529377540

1:10 PM - 2:00 PM: WORKSHOP 7 | WORKSHOP 8 (CHOOSE ONE)	
WORKSHOP 7	**Reach for the Skyscrapers: Building a Skyscraper and Telling the Story of Your Design/Build Using the Smithsonian Learning Lab** • *Presenter:* Neil Grimes, Education & Curriculum Materials Librarian, William Paterson University • *Target Grades:* 4th-8th grade • *Description:* When designing a building, engineers must consider the effects of forces that can change quickly; these are called *dynamic loads*. In this hands-on workshop, participants will work to build a skyscraper that is at least 2 feet tall using the suggested materials then discuss how to test the strength of their skyscraper structure from dynamic loads. Next, participants will learn how to tell their story of how they designed and built their skyscraper while keeping in mind the effects of dynamic loads on their structure by building a collection in the Smithsonian Learning Lab using pictures from the design process to the different stages of the build and including facts and pictures about existing skyscrapers from around the world. • *Materials Needed:* Paper, pencils, markers, or crayons, newspaper, tape, disposable cups, craft sticks, straws, glue, card stock, other building materials (blocks, toothpicks, fabric, etc.), and smart phone or tablet to take pictures. • *Zoom Link:* https://wpunj.zoom.us/j/93232729114
WORKSHOP 8	**Creating Soundwave Art** • *Presenter:* Heejung An, Professor, College of Education, William Paterson University • *Target Grades:* K-8 • *Description:* In this hands-on workshop, participants will first learn about sounds, waves, and their properties. As an art and technology integration class activity that is relevant to sounds and waves, the participants will then create electronic cards, by recording sounds and then converting their recorded statement to sound waves. • *Materials Needed:* Smart phone to record the sound, free web-based software programs (https://online-audio-converter.com/ and https://convert.ing-now.com/generate-a-waveform-image-from-an-audio-file/ • *Zoom Link:* https://wpunj.zoom.us/j/91529377540