NGCP Webinar Chat Transcript:
GSAWN Exemplary Practices and Celebration of National STEAM Day
November 8th, 2022

Amanda Sullivan: https://ngcproject.org/

Amanda Sullivan: https://www.ifthenshecan.org/

Amanda Sullivan: https://www.fabfems.org/

Heather Kleiner, Ph.D., Sci-Port Discovery Center: Sci-Port Discovery Center participates in IF/THEN; Leap into Science,;and MGM through LACAL.

Amanda Sullivan: This presentation and the chat will be archived and shared with you all so you can access all links and resources!

Amanda Sullivan: https://ngcproject.org/events-announcements

Amanda Sullivan: Subscribe to NGCP monthly e-newsletter: http://ow.ly/Zuds30qwpOK

Amanda Sullivan: https://www.universe-of-learning.org/gsawn

Amanda Sullivan: Feel free to ask questions or share resources in the chat throughout the presentation and there will be time devoted at the end the webinar for the speakers to answer your questions.

Adrienne: NASA continues to add to its accessible tools!

Imani Malaika: Are post-surveys done to determine how much science content is retained by attendees?

Amanda Sullivan: Great question, we'll be sure to pass that question to the speakers during the Q&A

Tara Cox (she/her) _National Girls Collaborative Project: I love that intro activity! Great use of the A in STEAM - Art!

Amanda Sullivan: This looks like so much fun!

Quyen Hart: https://www.universe-of-learning.org/

https://www.universe-of-learning.org/resources

https://www.universe-of-learning.org/resources/projects/girls-steam-ahead-with-nasa

Heather Kleiner, Ph.D., Sci-Port Discovery Center: I love the chalk art idea!

Quyen Hart: The above links are related to NASA's Universe of Learning and Girls Steam Ahead with NASA.

Adrienne: Great to use diverse culture constellations!

Tara Cox (she/her) _National Girls Collaborative Project: Another great use of Art and Science - this is so cool!

Tara Cox (she/her) _National Girls Collaborative Project: These are so many exemplary practices here!

Heather Kleiner, Ph.D., Sci-Port Discovery Center: Love the mirror!

Adrienne: STEAM "swag bag" - great!

Imani Malaika: The problem I have with these STEAM activities is that students retain very little science understanding. The emphasis is on art, not science.

Tara Cox (she/her) _National Girls Collaborative Project: Interesting point Imani! What do you think can help extend the science learning while using art as an access point?

Adrienne: NASA's arts resources are generally well grounded in science/engineering, but that may not come through in the slides today - I recommend checking out the particular lesson plans and other resources

Imani Malaika: Bloom's Taxonomy tells us that students retain more content in an PBL immersive experience in which students get to demonstrate their knowledge.

Quyen Hart: I think that art and science is a great excitement piece to engage your audience and provide entry to other activities where deeper science understanding can happen.

Tara Cox (she/her) _National Girls Collaborative Project: I think the trial and error, problem solving and engineering in art projects are developing those STEM skills!

Adrienne: NASA has a project with libraries called StarNet

Rachel (Oakville Public Library): Using arts in STEM is a great way to develop skills such as creativity and communication.

Imani Malaika: I have been involved in StarNet. I agree that creativity and communication are important skills, but science skills seem to take a back set to this.

Amanda Sullivan: I think "low floor / high ceiling" activities are really important. Low floor meaning it is easy for kids to connect, get started, and build confidence/interest (like these examples). High ceiling meaning there is a lot of ways to go deeper, get more complicated, or dig deeper into more core content. It seems like many of these activities and events could do that with the additional resources available online as well!

Carlana Stone: Art is a Transmission

Tara Cox (she/her) _National Girls Collaborative Project: Sometimes the goal isn't the science content, its about having fun and building positive attitudes towards science, which seem to be apparent in these events. Great work everyone!

Tara Cox (she/her) _National Girls Collaborative Project: I love that this is a full library takeover, Penny!

Imani Malaika: The USA ranks 13th out of the 79 countries and regions, according to the 2018 PISA scores in reading. As with math, U.S. performance hasn't changed much since the first PISA tests in 2000.

Adrienne: June 18th is the date of Sally Ride's 1st launch!

Martha Irene Saladino: These activities are meant for informal education and their aim is to engage people and young generations and to get them interested in learning more about science.

Tara Cox (she/her) _National Girls Collaborative Project: This is SO important Penny! We know how integral it is to make connections to REAL scientists, especially women!

Amanda Sullivan: I think it is great you had boys participate in the program as well! They also need to see these great female role models / scientists to break gender stereotypes, etc.

Quyen Hart: Role models are SO important for your youth audience, especially for the girls. For Girls STEAM Ahead with NASA events, facilitators can request a Subject Matter Expert to attend their event. Once you know when you will hold your event, go here to request an SME - https://www.universe-of-learning.org/informal-educators/request-an-expert

Amanda Sullivan: What a great resource! Thanks for sharing that link

Emily Bertolo, Cincinnati Museum Center: A question for everyone: We also allow boys in our STEM Girls program, but we advertise it more that our presenters are women in STEM. Does anyone have any ideas on how to be less gender binary while also trying to advertise to our lesser served communities? Does that make sense? (this can be answered at the end!)

Amanda Sullivan: That's a great question Emily

Adrienne: NASA has a program call Solar System Ambassadors which provides free volunteer assistance - check for the directory and someone near your location at https://solarsystem.nasa.gov/solar-system-ambassadors/events

Allison Pratt: I think it is less about the project and more about what is being taught through it. You can do an art project and tie in math and science. Sometimes doing a project that is not super heavy on math or science is what kids need to get started and thinking for themselves. I work in an afterschool setting and when we put a huge emphasis on core subjects kids will not even try because it feels forced upon them. When we give kids just a simple task that includes something they find to be fun and we as facilitators ask the right questions then they are into it and are willing to learn more. I think a lot of these ideas are a great way to lead into more challenging concepts. You have gotten the kids attention.

Heather Kleiner, Ph.D., Sci-Port Discovery Center: My connection might be spotty.

Brenda Britsch: That is a great point, Allison.

Adrienne: Hooray for libraries and librarians!

Amanda Sullivan: Hooray for libraries!!

Quyen Hart: NASA's Universe of Learning is externally evaluated. You can learn more here - https://www.universe-of-learning.org/about-us/program-evaluation . Based on this year's

evaluation of GSAWN events, the participants responded that felt they learned a lot and gained more interest in astronomy too.

Imani Malaika: Quyền, the participants responded that felt they learned a lot or they actually learned science concepts?

Quyen Hart: Since host sites design their own events, our evaluation forms are more general for host sites like what you've heard here. We do not have pre/post evaluations on astronomy content they learned.

Amanda Sullivan: I love Snap Circuits! And Snap CircuitsJr is great for even younger learners

Imani Malaika: I use snap circuits, too. You just have to make sure students understand the science supporting it.

Adrienne: @Emily - how about having a program and make sure women and men are presenters, volunteers, etc.

Imani Malaika: Role models are important, but an earlier NGCP webinar stated that racialized roles are much stronger than role models.

Heather Kleiner, Ph.D., Sci-Port Discovery Center: As I tried to say but my connection was not good, we state the STEM learning goal first, as per PEAR-DoS training approaches. Students learn insulators, conductors, short circuits, resistors, and other rich dialogue when it makes sense. Then they take that knowledge to the exploding star cards to complete the electronic circuit on the card.

Amanda Sullivan: Web: https://www.universe-of-learning.org/gsawn

Email: girlsSTEAMahead@universe-of-learning.org

Link to recordings of past webinars: https://www.universe-of-learning.org/gsawn#girls-steam-webinars

Emily Bertolo, Cincinnati Museum Center: Thanks!

Amanda Sullivan: After this webinar, please take a moment or two to complete our post-webinar survey! https://forms.office.com/r/mYup6v06Bh

Amanda Sullivan: https://ngcproject.org/events-announcements

Rachel (Oakville Public Library): Thank you so much! There are so many wonderful ideas and resources that I'm eager to try.

Adrienne: Thank you presenters and organizers! Happy STEAM day, everyone!

Brenda Britsch: Thank you all!

Amanda Sullivan: Thank to all the speakers and attendees sharing ideas in the chat!

Emily Early (she/her): Thanks for sharing, all!

Quyen Hart: Contact info for GSAWN: To learn more or participate, please contact:

girlsSTEAMahead@universe-of-learning.org Also you can reach out to us at this email to learn more or ask us more questions.

Lindsay: Thank you for recording this! I thought this was starting at 12:00pm.