2020 Virtual Science On a Sphere® Users Collaborative Workshop

Integrating SOS Technology in the K-12 Classroom
Wednesday, Dec. 2 (3:20 PM Breakout)

Rachel Wellman, PhD - Palm Beach County School District
Lauren Butcher - Pine Jog EE Center, Florida Atlantic University
Integrating SOS Technology in the K-12 Classroom

Meet the Presenters

Rachel Wellman, PhD
Boca Raton Community High School
Palm Beach County School District (PBCSD)
https://sites.google.com/palmbeachschools.org/rachelwellmanphd/home

Lauren Butcher
Pine Jog Environmental Education Center
Florida Atlantic University (FAU)
http://www.pinejog.fau.edu/ourgreenschools/contact.php
Integrating SOS Technology in the K-12 Classroom

Galaxy E3 Elementary School

- **Title 1** Public School
  - Boynton Beach, FL
  - PBCSD
- **Platinum level LEED** facility
  - Uses 42% less energy
- **SOS** installed in 2013
  - Upgrade planned for 2021

Galaxy E3 Elementary School
Integrating SOS Technology in the K-12 Classroom

How???

Earth Systems Science (ESS)
* Water Cycle
* Weather and Climate
* Flow of Energy
* Human Impact

Example

sos.noaa.gov

FL Standards

Earth Structures (SC.K-12.E)
Earth and Space Science
* Water Cycle
* Weather and Climate
* Flow of Energy
* Human Impact

Example
Integrating SOS Technology in the K-12 Classroom

Discovering Datasets and Connections

https://sos.noaa.gov/datasets/water-falls/
https://youtu.be/FwxnSaoq0_k
https://sos.noaa.gov/datasets/water-cycle-a-water-falls-docent-script/
Integrating SOS Technology in the K-12 Classroom
2014 - Present

Galaxy E3 Elementary School

2015 SOS Users Collaborative Network Workshop

Investigating Lessons
Waterfalls Lessons
Additional Lesson Plans from NOAA

Technical Support from BWC and PBCSD Volunteer, Kelly Fallon - Linux Systems Engineer

Field Trips with Boca Raton Community High School students
Expanding on lessons to Reading Goals
**9-12 Students Teaching K-5 Students!!! (Ex. Children Story!)

NOAA Environmental Literacy Grant
Integrating SOS Technology in the K-12 Classroom

NOAA Environmental Literacy Grant

**Program:** Climate READY! (Climate Resilience Education and Action for Dedicated Youth)

**Grantee:**
- Pine Jog EE Center, Florida Atlantic University

**Partners:**
- School District of Palm Beach County
- Galaxy E3 Elementary School
- PB County Coastal Resilience Partnership
- Palm Beach County Office of Resilience
- SE Florida Regional Climate Change Compact
- City Sustainability Offices - [West Palm Beach](#), [Boynton Beach](#), [Boca Raton](#)

Photo: NASA, public domain
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NOAA Environmental Literacy Grant

Climate READY Components:
- CR Institute - Teen Ambassadors
- Teacher Professional Development
- Afterschool Students (Grades 4-8)
- Community Outreach Events

Communities:
- Glades
- Riviera Beach
- West Palm Beach
- Lake Worth
- Boynton Beach/Delray
- Boca Raton
Integrating SOS Technology in the K-12 Classroom

Future Plans

- Tools to use in a Digital Classroom
  - SOSx Mobile App
  - Virtual Field Trips
  - Google Tools **Collaborative!**
    - Docs, Meets (Breakout Rooms), Slides, Sheets, Draw, etc.
  - SMART Boards
  - Jamboard, Kahoot, Quizziz, Quizlet, etc.
Step 1: Click on the link above
Step 2: Identify with a “sticky note” color (yellow = elementary, green = middle, pink = high school, orange = (all) K-12)
Step 3: Use the toolbar on the left and click on the “Sticky Note” icon (Ctrl+Shift+P)
Step 4: Provide an answer for questions 1-4
Step 5: Use arrows at the top to move through pages
Note: All contributions are anonymous unless you state your name