GOING GLOBAL WITH STEM!

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Hello!

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In the 21st century, scientific and technological innovations have become increasingly important as we face the benefits and challenges of both globalization and a knowledge-based economy. To succeed in this new information-based and highly technological society, students need to develop their capabilities in STEM to levels much beyond what was considered acceptable in the past.”

(\textit{National Science Foundation})

\textbf{Why STEM?}

\textit{“The only field where students are guaranteed to go pro”}

-North Carolina Lieutenant Governor Dan Forest
STEM Beyond the Classroom

From this → bit.ly/ncties19
STEM Beyond the Classroom

To this:

1. Jacob H.
2. Jaxson
3. + 1 more

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STEM Beyond the Classroom

● The importance of sharing
  ○ Encourage collaboration with classroom teachers
  ○ Build partnerships
  ○ Share ideas
  ○ Provide an authentic audience for students

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Collaboration Tools

- Facebook
- Twitter
- Padlet
- Flipgrid
- Seesaw

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STEM on Social Media

- Reach a broad audience.
- Find ideas
- Let your colleagues, families, community have a glimpse inside your classroom
- Build a virtual PLT

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STEM on Social Media

- **Who to follow**
  - List of teachers to follow
  - Please add STEM Teachers you follow

- **Who to follow**
  - [STEM Teacher Tribe](#)
  - [MakeyMakey Educators](#)
  - [Stellar STEM Teachers](#)

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Flipgrid

- Define your community
- Add topics for discussion
- Students share their voices using web, iOS or Android devices.
- #GridPals
Iggy Peck Architect

After building and testing your bridge, reflect on the following questions [make sure to show your bridge!]

1. Why did you choose this structure?
2. Was your bridge successful? Why or why not?
3. How many pennies did your bridge hold?
4. What would you do differently next time?

4 Videos 0 replies 0 views 0% engagement

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Springy Thing

After creating your Springy Thing, answer these reflection questions. Make sure to show your invention!

1. How does your invention work?
2. How is your invention useful?
3. How can you improve your invention?

Springy Thing Plan
Google Docs

13 Videos

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Seesaw

- A digital portfolio that collects students’ digital and physical work in one place.
- A space that each student can own. Built-in tools make it easy for students to capture their learning, reflect, and develop new skills.
- A parent communication tool that seamlessly shares what’s going on in your classroom and builds a strong school-home community.

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Padlet

- Online bulletin board
- Add images, videos, links, etc.
- Easy to access from any device
- Free and Paid options
  - Download as image or PDF
- Add another teacher as administrator
- Embed on website or blog
LEGO Build - Wonder

- Getting to know you
  - Students can save image
    - Multi week project
  - Provide sentence frame
    - Build communication skills

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Present STEM Challenge

- Share with multiple classes
- Allow students to provide feedback
- Pre- and Post-reflections
- Great for revisiting a challenge
- Can share directly to Twitter, Facebook, Google Classroom

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More Global STEM Projects

- Projects by Jen
- Pringles Challenge
- Global STEM Challenges
- Level Up Village

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Join the Conversation!

- Are you looking to connect with other teachers for STEM collaboration? If so, complete this form and then view the results to find your partner class!

- Make sure to Tweet out your STEM lessons with #GlobalSTEM to connect with others!

- Come check us out at Highfalls Elementary on April 4th to see how our teachers are integrating STEM into the content areas!

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Event Includes:
- Hands-on PD: robotics, engineering design process, design thinking.
- Learn how to use traditional materials (cardboard, tape, etc.) to incorporate engineering in your classroom.
- Every attendee receives a “Getting Started” engineering kit.
- Earn DLC credit.

More Information and Registration
[www.k5engineers.org/2019-conference](http://www.k5engineers.org/2019-conference)

From Past Attendees
“Today’s experience made me realize that incorporating engineering and robotics into the classroom is not as hard as it seems.”

“This was extremely helpful, insightful, and a FUN PD. I felt like this was a great use of my time, and it allowed me to learn so much.”
CREDITS

Special thanks to all the people who made and released these awesome resources for free:

- Presentation template by SlidesCarnival
- Photographs by Unsplash