Storybook STEM and Beyond
Hello!

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Session Goal:

Explore strategies to boost curiosity, accountability, and student engagement in your classrooms using STEM.
According to the U. S. Department of Commerce, STEM occupations are growing at 17%, while other occupations are growing at 9.8%.

It is estimated that there will be an increase of about 1 million STEM jobs from 2012 and 2022.

93% of STEM occupations have wages above the national average.
Storybooks are a natural starting point when introducing students to STEM.

- Kids of all ages love being read to and are comfortable with books.
- Storybooks are engaging, yet have complex plots and problems.
- Storybooks allow for cross-curricular integration.
Choosing books and Establishing Expectations
Choosing Books

When choosing books:

- Consider your library
  - What books do you currently have in your classroom library that connect with a real world problem?
- Consider the problem
  - Is the problem open ended? How can you present the problem in a way that there are multiple solutions?
- Consider your content
  - What are you wanting students to learn?
A Few of Our Favorite Introduction to STEM Books

- The Most Magnificent Thing
- What Do You Do with an Idea?
- What Do You Do with a Problem?
A Few of Our Favorite Non-Fiction STEM Books

One Plastic Bag
Isatou Ceesay and the Recycling Women of the Gambia

Ada's Violin

APA's Mechanical Fish
A Few of Our Favorite Fiction STEM Books
Once I choose a book, then what?

Establishing Expectations

Collaborative Groups
- Students should be expected to work in groups of 2-4. Collaboration is a 21st Century Skill.
- Your challenge will be to hold all team members accountable.

Perseverance
- Some will want to give up during the challenge. That is not okay. Challenge the students to learn from their mistakes and others thinking.

Share and Reflect
- Students should have time to share and reflect on their designs. What would they do differently next time?
Boost Curiosity

It’s not always what you know. Sometimes it is is what you need to know that matters most.
Iggy Peck is a creative child whose passion is building things. As an architect, Iggy’s structures ranged from diaper towers to apple churches.

- **Your Challenge:** Create the tallest tower possible, using only index cards.
- Now that you know your challenge, what questions do you have?
Student Accountability and Engagement

How do we hold students accountable when working in collaborative groups?
Student Accountability and Engagement

After Questions:
1. In our design that we did not use our original plan worked very well and we got higher
2. Me and my partners were positive with each other. We also said that this is not a bad plan. So we changed our idea and agreed on it.
3. If we did this challenge again I would change the way we fold the paper for the tower.
And Beyond
Moving from storybooks to other STEM projects
Beyond Storybooks

Current Events

Technology

Cross-Curricular Challenges

Career Research

Field Trips
NEWS EXPLAINED IN 10 MINUTES
Additional Resources
Some Of Our Favorite Resources

Crash Course Kids
Thanks!

Any questions?

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

- US Bureau of Labor Statistics
- STEM 101- Intro to tomorrow Jobs
- Why is STEM Education So Important
- Crash Course Kids