

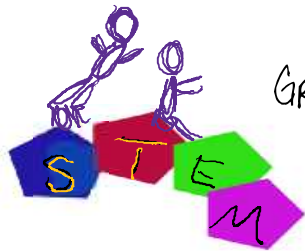
Sci Tech to STEMulate the Mind

Cynthia Brawner, NBCT

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Some things to do while waiting

Go to [Edmodo.com](https://www.edmodo.com) and join our group

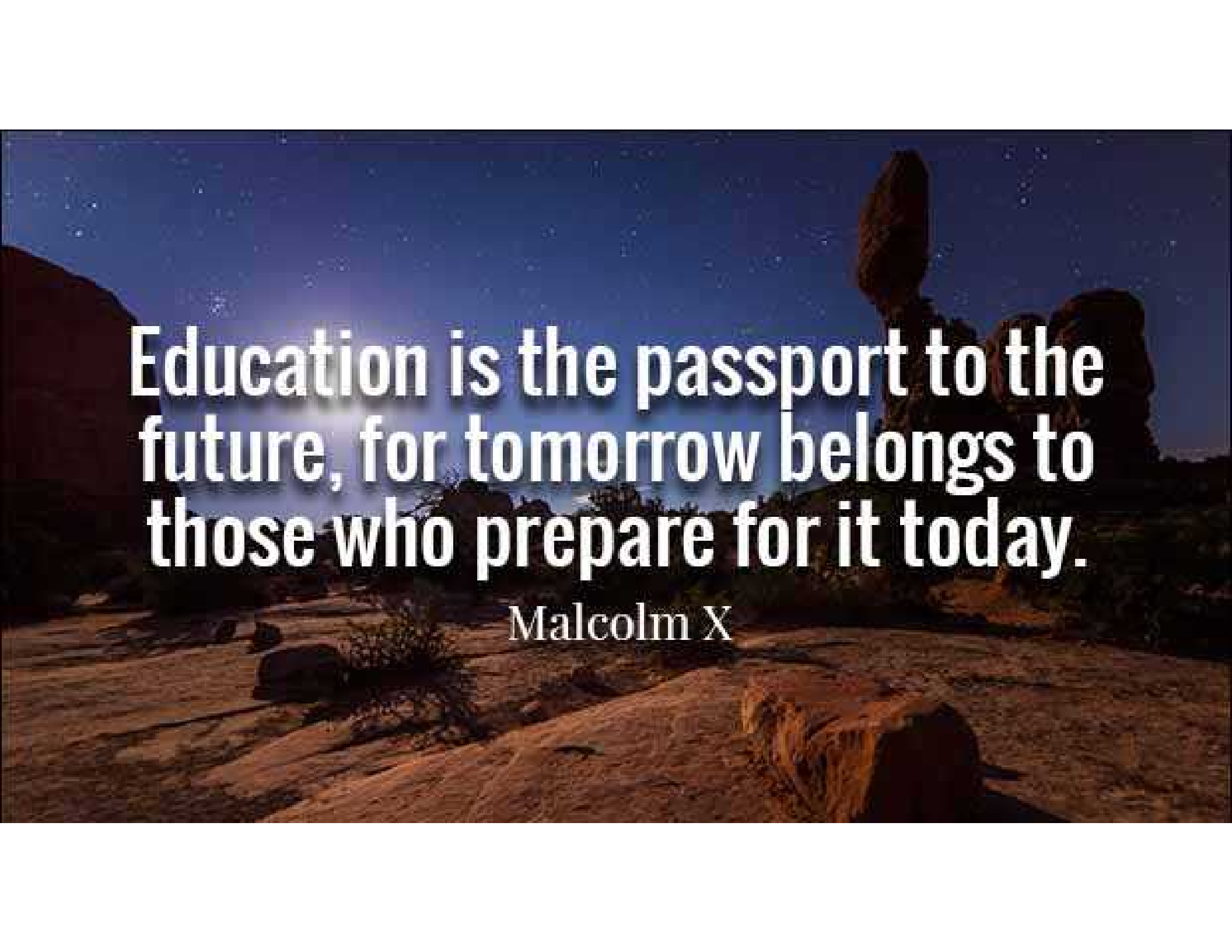


Group Code: [uyybdS](#)

Go to [Google Classroom](https://classroom.google.com) and join our group

Group Code: [yaurbke](#)



A desert landscape at dusk or dawn. The sky is a deep blue with some stars visible. In the foreground, there are large, reddish-brown rocks and sparse desert vegetation. In the background, a prominent rock formation, possibly a butte or mesa, stands against the sky. The overall scene is serene and evocative.

**Education is the passport to the
future, for tomorrow belongs to
those who prepare for it today.**

Malcolm X

Agenda

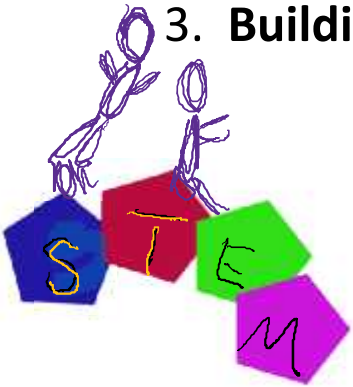
1. Opening Activities

- * Edmodo
- * Google Classroom
- * Audience Activity

2. Session Connection

- * Science
- * Technology
- * Engineering

3. Building on Standards



4. A Bridge Connector

- * Preschool
- * Kindergarten
- * Grade 1 & 2

5. Keeping it Real

- * Classroom Connection
- * Student Friendly

6. Closing Thoughts

- * Exit Slip

Audience Poll

- Go to Edmodo.com and join our group
 - Group Code: **uyybds**
- Go to Google Classroom and join our group
 - Group Code: **yaurbke**
- Using your cell phone
 - Take the poll at Edmodo.com

I am trying to encourage kids to do something that isn't yet on their mind because it is not in popular culture. Popular culture tells you 'music, music, sports, sports.' It neglects the importance of a STEM education.

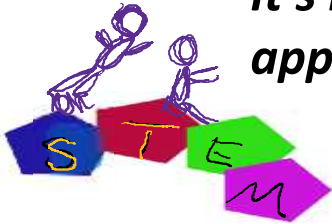
— *will.i.am* —

AZ QUOTES

What is STEM?

STEM learning has a heavy emphasis in four specific disciplines – Science, Technology, Engineering, and Math – that is intertwined

It's not a "let's stop all other learning and do STEM" approach.



Session Description

- Participants work together to explore activities in science with an engineering emphasis and technology to stimulate the minds of children in pre-K to second grade.
- STEM related activities are the focus of this session.

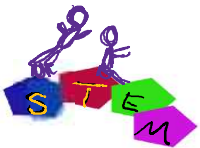


The science of today is the
technology of tomorrow.

Edward Teller

IELD Standards Covered

- IELD Standard Science
 - **Goal 11** - Demonstrate curiosity about the world and begin to use the practices of science and engineering to answer questions and solve problems.
 - **Learning Standard 11.A** - Develop beginning skills in the use of science and engineering practices, such as, observing, asking questions, solving problems, and drawing conclusions.
- IELD Standard Social/Emotional
 - **Goal 30** – Develop self-management skills to achieve school and life success and develop positive relationships with others.
 - **Learning Standard 30.A** – Identify and manage one’s emotions and behavior.

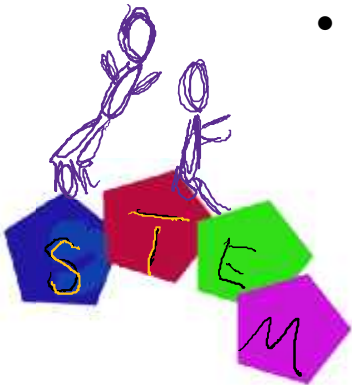


*Technology makes the world
a new place.*

Shoshana Zuboff

IELD Standards Covered

- Science NGSS
 - K-2 ETS1 Engineering Design
- Technology Connections
 - ISTE Standards for Students
 - Innovative Designer
 - Solve problems by creating new and imaginative solutions using a variety of digital tools



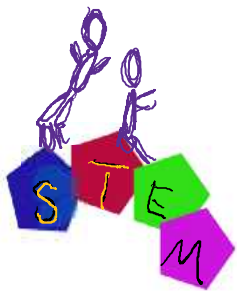


*Science is about knowing;
engineering is about doing.*

Henry Petroski

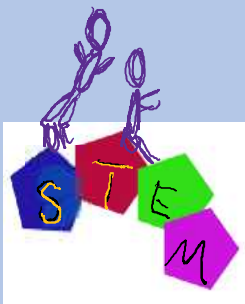
What is Engineering?

*Designing to
solve a
problem*



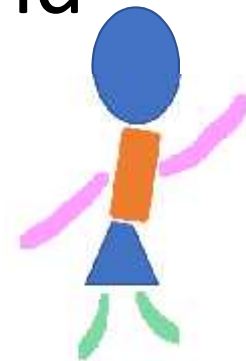
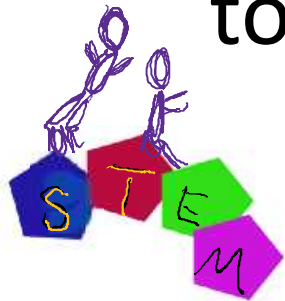
What is the Problem?

*A bridge is
needed!*



Designing a Bridge

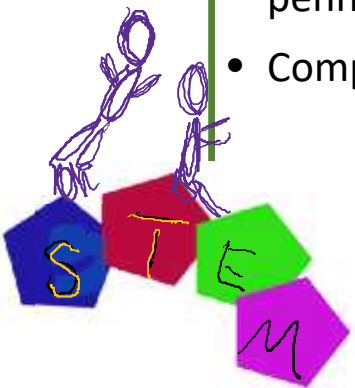
Why? To help get to the other side. See your grade level to determine who needs to cross to the other side and what's there.



A STEMulating Activity: Directions

- Using the graph index card, sketch your bridge design – reminder: Stay within your assigned age group
- Together review the materials and decide which will be used to build the bridge
- Take 15 to 20 minutes to build, then test it to determine if it can stand on its own and hold a small lightweight object; penny
- Complete the graphic organizer

- Work together
- Use the materials at your table and build a bridge
- Follow the directions, too



A STEMulating Activity: Areas Covered

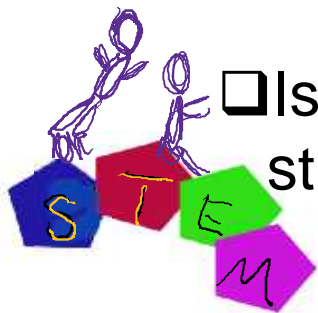
- Cross Standards
- ELA
- Math
- Social Studies



Making a Personal [CLASSROOM/Student] Connection

How does this activity can be used with my students at the grade level I teach?

What changes do I have to make based on how my students learn?



Is this activity a realistic activity to use with my students?



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