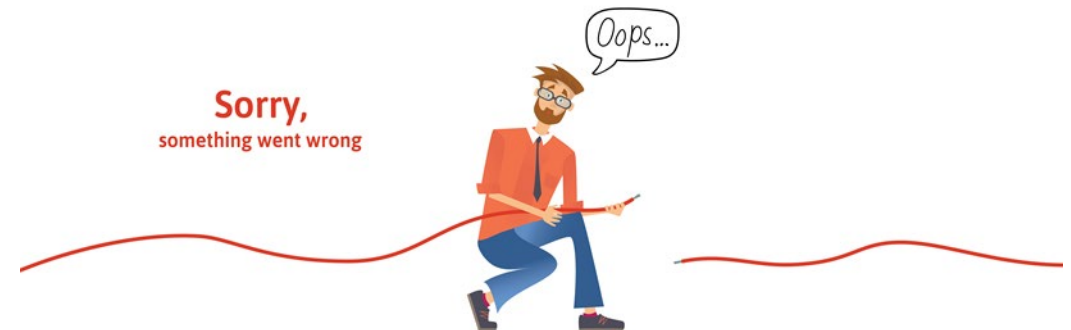




SUPER STEM & BEYOND

ADDRESSING THE “WHAT-IFS”

- What if Christel loses internet connection? ... check back in 5 mins using the same Zoom link. If the session is not up, then watch your email for directions.
- What if there is a lot of background noise at your house? ... keep yourself on mute or Christel will mute you! LOL (This is the best part of virtual teaching)
- What if you did not get a Google Doc or Form emailed to you, send Nicole Ireland a message in the Chat box.
- What if you get kicked out and need to be let in but everyone is in a breakout room ... text **561 596-9039**.





ADJUST YOUR ZOOM NAME

- Change your Zoom name to the number below then your first name:

Group Number	Name
1	Joann A, Melinda, Martha, and Victoria
2	Becky, Maria, Iana and Bibiana
3	Kara, Jo-Ann F, Andrea, Nicole H, and Patricia
4	Carolina, Josenta, Amanda, Amber and Denise
5	Luisa, Brittany, Collette, Lois, and Luiza
6	Helen, Robert, Marianne and Cat
7	Fawn, Michael, Thomas, and Alyson
8	Sarah, Sandra, Jaime, Sherrie-Ann, Dianna, and Anna



RESOURCES FOR TODAY

- Log in to www.connectedclass.com
- Go to **Resource Room**
- Click on **Onsite Trainings**
- Open **Super STEM & Beyond**



MATERIAL LIST



Material list for **SUPER STEM & BEYOND**

The **SUPER STEM & BEYOND** virtual workshop this Saturday will be hands-on. You will need to have the following materials to be prepared for an “**OUT OF THIS WORLD**” challenge:

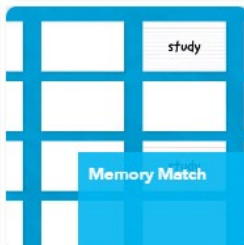
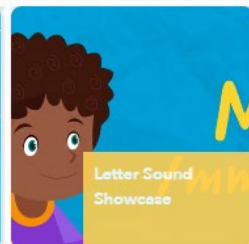
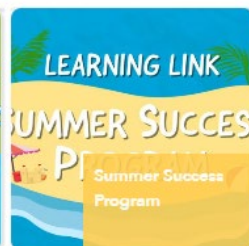
- Copy paper (5 to 10 sheets)
- Scotch Tape
- Scissors
- Cardstock (5 to 10 sheets)
- Straw
- Books (any 10 paperback books will work)
- Measuring Tape
- Protractor





FOLLOW-UP

How To Use Learning Link (PDF)



Math	▼
Literacy	▼
Standards	▼

HOW TO USE LEARNING LINK

LEARNING LINK LOG

MANAGE STUDENT LIST

SCHEDULED VIDEO LOG

TEACHER RESOURCES



In-Service Follow-Up Option IV

Training Session:

Directions:

Connect to parents and families based on student need using Learning Link on Connected Class. Complete the following to earn three in-service points:

- Set-up your student list for [Learning Link](#). [Directions for set-up](#).
- Select two videos and teach the concepts to some or all of your students.
- Send the videos you used with the students to their families and encourage them to play the game, strategy or activity at home.
- Collect the following evidence and email it to Katie when you are complete:
 - Take a screen shot of your student list. You can use your phone to take the photo.
 - Answer these questions:
 - What videos did you use?
 - How many of your parents participated?
 - Did you see increased student achievement? Explain.

Please submit via email katie@connectedclass.com
no later than 30 days after the training date.

Three In-Service Points will be awarded for this option.

MEET DIANE OWENS, SPECIALIST



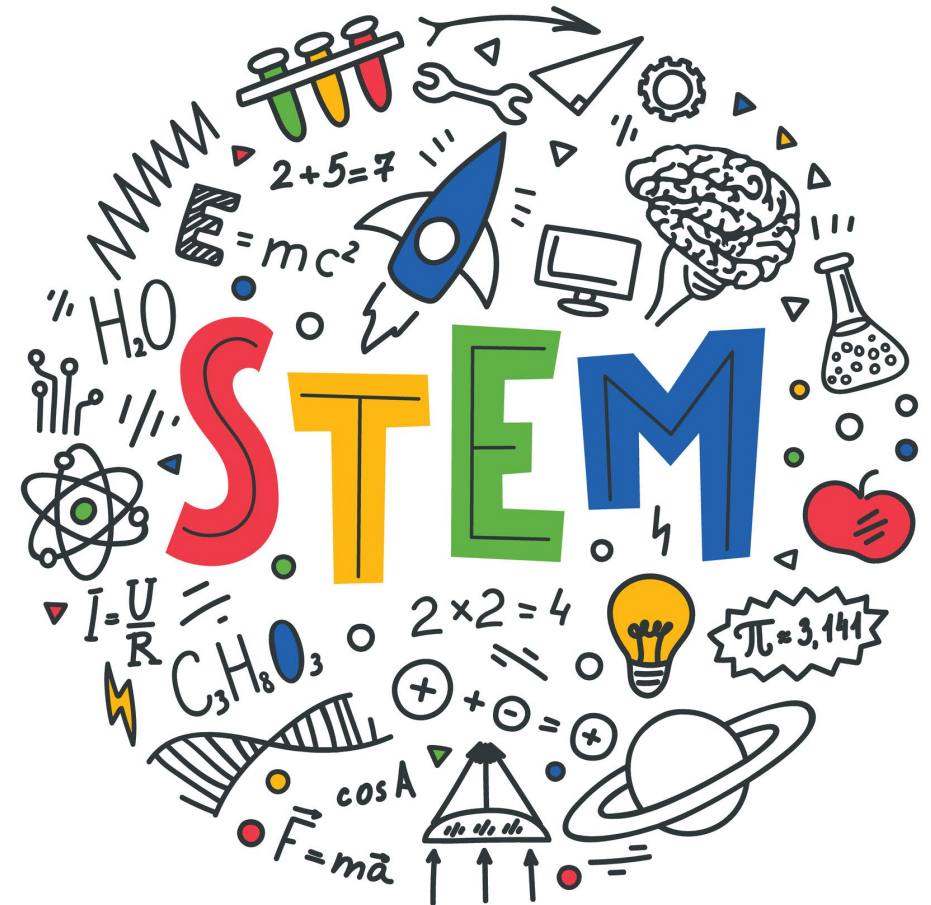
- Contact Diane if you have questions regarding private school services or payment:
diane.owens@palmbeachschools.org





LEARNING INTENTIONS

- Explore simple STEM lessons
- Examine super STEM projects
- Determine how to support ESE students
- Discuss how to get parents and families engaged





SUCCESS CRITERIA

- I can collaborate with teachers on **BUILD CHALLENGES** and determine how to implement similar experiences into my classroom
 - Discuss how to get parents and families involved
 - Incorporate accommodations and/or modifications for ESE students





MEET YOUR TEAM



Meet Your Team

- Introduce yourself and answer the following:
 - Share your background in teaching STEM concepts
 - Discuss what makes a good STEM Lesson and Project
- Each team needs to have one person summarize what makes a good STEM Lesson and Project below

Team	Summary of what makes a good STEM Lesson and Project
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	





Six Characteristics of a Great STEM Lesson

- Read article and think about ...
 - What are you already doing in your classroom that fits these characteristics?
 - After looking at the characteristics, are there any areas you want to develop more for your classroom?



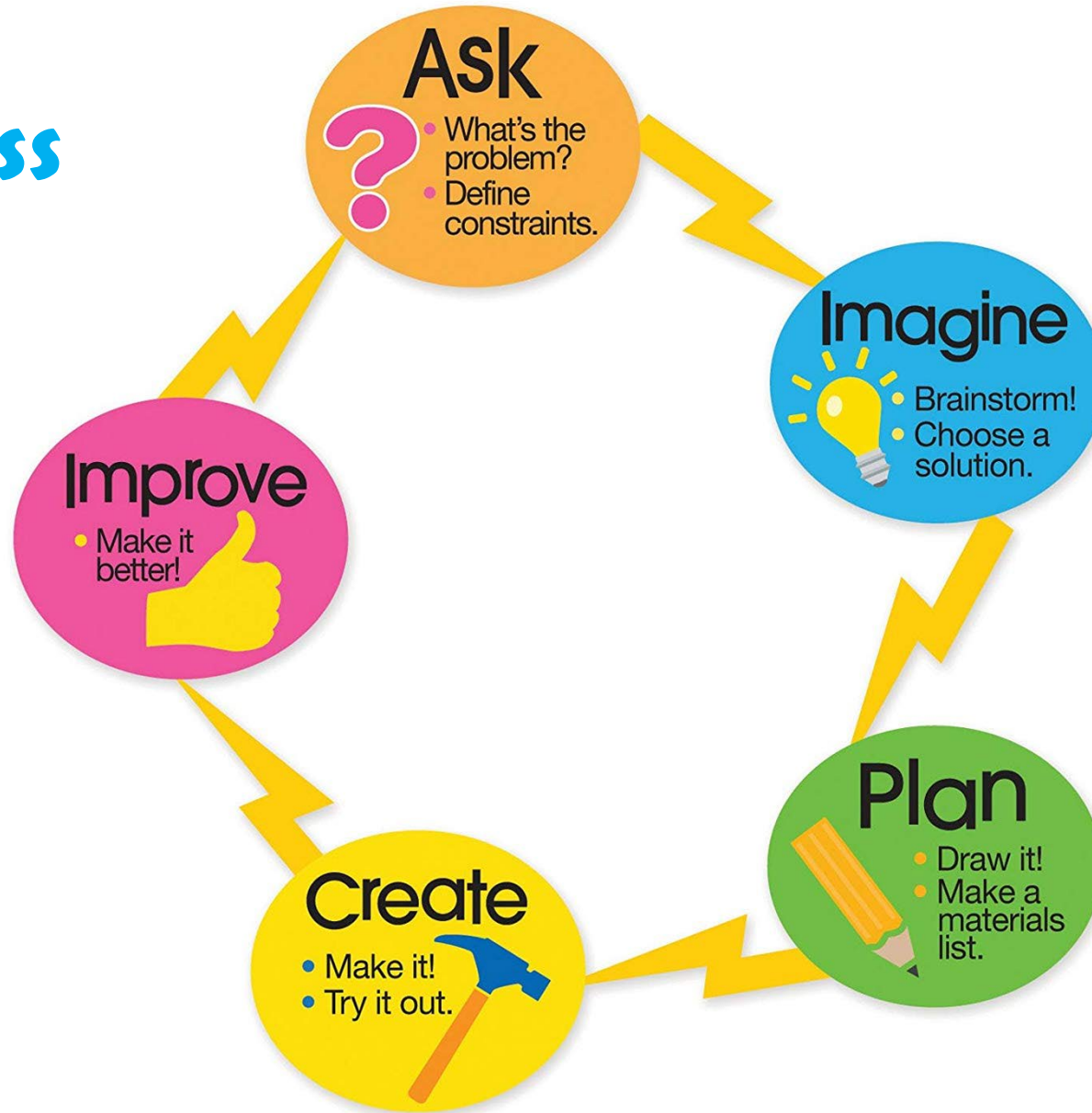


Six Characteristics of a Great STEM Lesson

by Anne Jolly

1. STEM lessons focus on real-world issues and problems
2. STEM lessons are guided by the [engineering design process](#)
3. STEM lessons immerse students in hands-on inquiry and open-ended exploration
4. STEM lessons involve students in productive teamwork
5. STEM lessons apply rigorous math and science content your students are learning
6. STEM lessons allow for multiple right answers and reframe failure as a necessary part of learning.

Engineering Process





STEM IN ACTION



Rube Goldberg

<https://www.youtube.com/watch?v=0uDDEEHd1Y&t=47s>



BUILD CHALLENGE



Simple STEM Lesson: Stage 1

Build Challenge

Real-World Problem: As you may have heard, there is a supply chain shortage; therefore we need your help to build a bookshelf to hold as many books as it can.

Constraints: You may use the following materials to build your bookshelf: One sheet of copy paper, scissors and clear tape per bookshelf.

Work together as a team, discuss what you think your design should look like and work through the entire engineering process below. Since this is a virtual workshop, each one of you needs to create a bookshelf and test with your own paperback books. Feel free to try several designs. You have one hour to design, develop, test, make better and create a presentation.

Presentation:

You will need to log your experiences in one Google Slide presentation for your team and share with creaves@connectedclass.com.

Include:

- A name for your product and a projected cost
- Photos and/or video of the testing trials along the way and the final product
- Outline successes and failures your team experienced
- Identify any science and math concepts discussed or explored during this challenge
- Would you try this build challenge with your students? What adjustments would you make? Include any ESE accommodations/modifications you would need to incorporate for your classrooms.
- How could you get parents engaged in a Building Challenge?

Extension: If you finish early:

- Explore STEM posts in the Resource Room
 - Use drop down STEM if Elementary/Middle School
 - High School Stem post is the second one on the Resource Room home page







BUILD CHALLENGE RESULTS

- Each team will share their experience using their Google Slide presentation





**HOW
COULD WE
TURN THIS
BUILD
CHALLENGE
INTO A
PROJECT?**



BUILD CHALLENGE # 2



ROCKET MAN BUILD CHALLENGE

Richard Branson, Jeff Bezos, and Elon Musk have teamed up to develop a rocket ship even better than the ones they own. Initially they had teams of scientists and engineers, but with the supply chain shortage they quit. Knowing educators are the one profession that creates all others, they have asked you to design and test a rocket because you are used to limited supplies. The team that sends their rocket the furthest, gets an opportunity to join the design team at Galactic Blue Space this winter break. 😊

Real-World Problem:

Due to the pandemic, the supply chain is limited; therefore, these billionaires can only provide you with tape, cardstock, scissors, and a straw. They have complete confidence in your ability to make something amazing out of nothing at all... they know you do it every day!

Work together as a team, discuss what you think your design should look like and work through the entire engineering process below. Since this is a virtual workshop, each one of you needs to create a rocket and test. Feel free to try several designs. You have one hour to design, develop, test, make better and create a presentation.

Constraints:

- One hour to design, develop, and test
- You may only use tape, cardstock, scissors, and a straw
- Only use human air to fuel the craft
- Use the protector and launch the rocket from a 40-degree angle



Presentation:

You will need to log your experiences in one Google Slide presentation for your team and share with creaves@connectedclass.com.

Include:

- A name for your Rocket and a projected cost
- Photos and/or video of the testing trials along the way and the final product
- Outline successes and failures your team experienced
- Identify any science and math concepts discussed or explored during this challenge
- Would you try this build challenge with your students? What adjustments would you make? Include any ESE accommodations/modifications you would need to incorporate for your classrooms.
- How could you get parents engaged in a Building Challenge?

Extension: If you finish early:

- Locate additional Build Challenges for your grade level and record onto your grade level Google Doc
- Identify science and math concepts for each challenge



ENGINEERING DESIGN CHALLENGE RESULTS

- Each team will share their experience using their Google Slide presentation





**HOW
COULD WE
TURN THIS
BUILD
CHALLENGE
INTO A
PROJECT?**