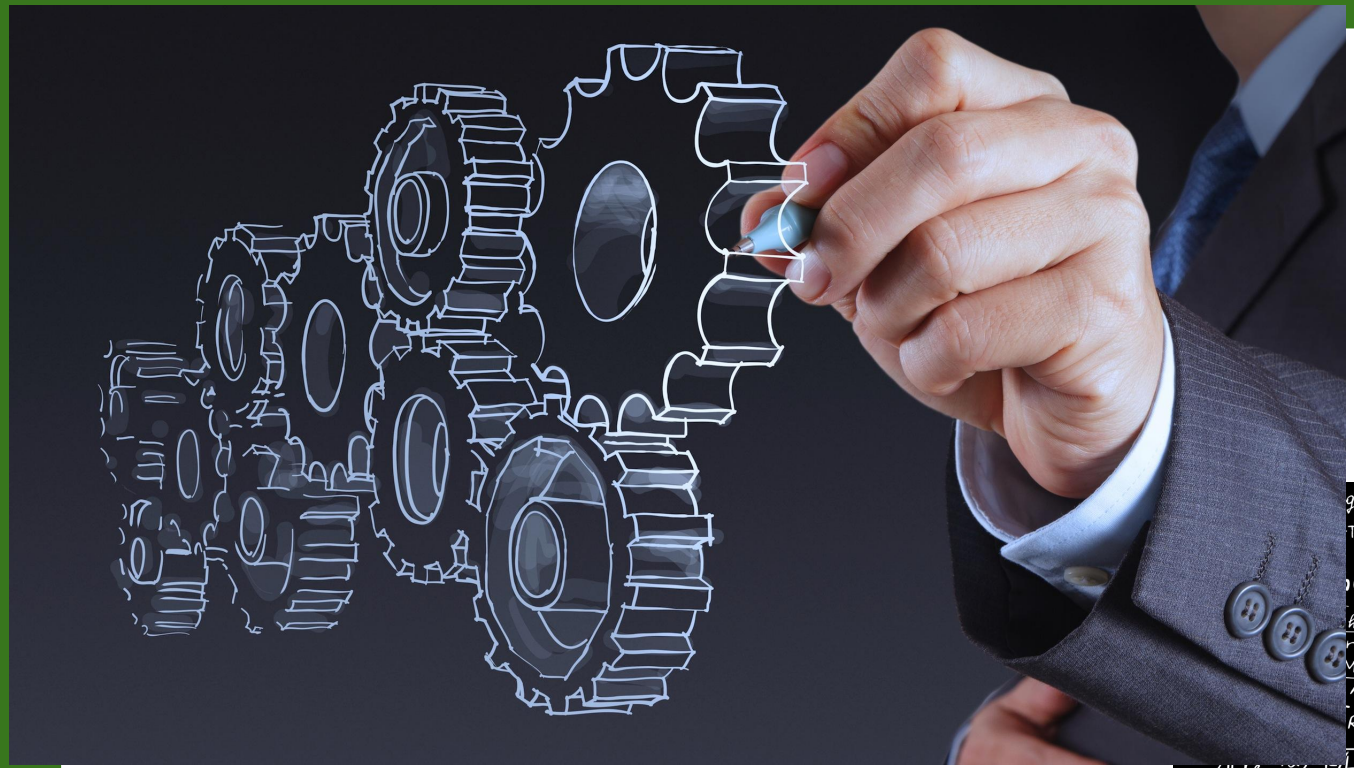
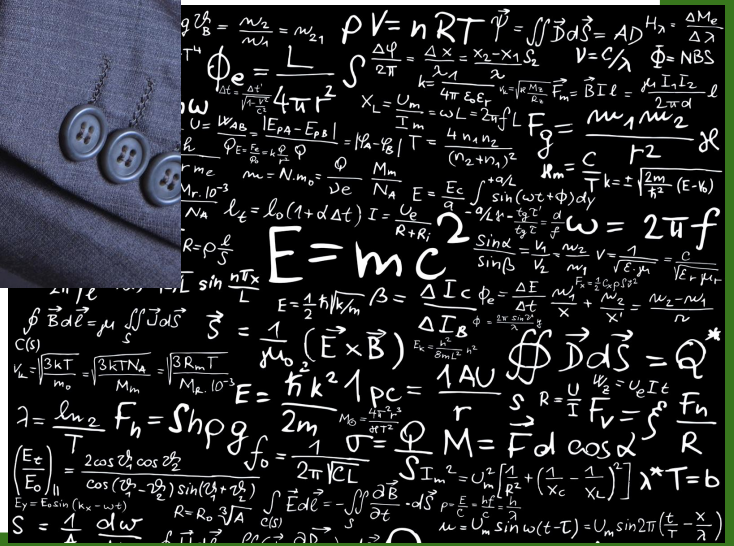
Science, Engineering, Technology & Math

Design It! 2.0



What do you see?



I see something that I find to be scary and overwhelming. I wanted to design a class that would be fun enough that those who might be afraid of STEM would forget about *curriculum* and focus more on what they were *doing* and *learning*.

Class Structure

Week #1:

- Explanation of physics terms (velocity, mass, acceleration, potential and kinetic energy, Newton's laws)
- Kahoot / Prezi
- Moon Craters Experiment

Week #2:

-

Week #3:

-

Week #4:

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Week #5:

-

Week #6: Finish-up all projects

Week #1

- Kahoot Introduction:
  - https://create.kahoot.it/#quiz/85476601-bfee-4311-ae56-67f1bab93614
- Quick discussion of terms to know
  - potential and kinetic energy
  - motion
  - mass
  - acceleration
- Video explaining potential and kinetic energy

http://science.howstuffworks.com/engineering/structural/roller-coaster3.htm

MOON CRATER:

MATERIALS:

- large square plastic container or small roasting tray
- flour to fill the container or tray to a depth of at least 4 inches
- plastic Easter egg shell
- 10 pennies (each penny is 2.4 g), for weight inside the plastic egg
- short ruler, 12 inches or less, including metric marks
- notecard
- materials to lay under/around the flour tray for easier cleanup,, such as a tarp, ground cloth, newspapers, butcher paper or large plastic bags
- yardstick (or meter stick)
- pile of books, bricks, or something similarly heavy, to prop up the yardstick near the flour tray

Use different weights in each Easter egg to teach the power of mass and acceleration in relation to potential and kinetic energy.

How to make a moon crater

(Enter Video Clip Here)

(add a question or statement here that supports your video clip)

(Enter Video Clip Here)

(add photos of class supplies and materials here)

(Enter Class name here) Tools

Enter photo here

Creative Challenge:

(Write one challenge for the week/class here. Duplicate this slide for each class or week. Identify ONE

challenge for each class or week)

(Enter photo/videos of student work here. Duplicate this slide as needed)

(Enter photo/videos of student work here)

Materials & Supplies

- *(enter your class materials and supplies here)*
-

Pro Tips by Liz Rich

- *(Enter your pro teaching tips here...see examples below)*
- Show video clips at the beginning of each class period
- Take video and photos of the kiddos throughout the class and add it to the presentation.
- Give kiddos a SMALL piece of paper so they can finish the project. As the class continues, gradually increase the size of paper.
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Resources:

- *(Enter resources and links here...see example below)*
- https://www.youtube.com/watch?v=Jbml240EIXM
- https://www.youtube.com/watch?v=FIgxKVIfRr4&list=PLSgOjDbUGmKmhaePMybi26dlRjZ2Jbd64