

Engineering BINGO (Grades 9-12)

Write a story about a Superhero that solves the problem of the Coronavirus. Create an Animation of your Story. Share your story.	Fold and fly different styles of paper airplanes. How can the science of flight help you design a better plane?	Look closely at various kitchen tools. How do you think they work? How could they be improved ?	Transform a room of your house into a castle! What features do you think are most important in real castle designs ?	Create the ultimate creative rolling car that can go down a ramp. How many different ideas can you try?
Create a gap that is about 12 inches across. Use different materials to create a simple bridge. How can you determine which bridge is the strongest?	Go out for a walk. Take pictures of things you see: buildings, vehicles, nature, etc. Redesign one of your pictures in TinkerCad. Share your picture and your 3D model.	Transform a sheet of paper into a fan. How many different designs can you come up with? How else can you transform paper ?	Louis Braille wanted to make reading easier for other blind people so he created a code of raised dots. Can you write a message in Braille ?	Watch a movie about sports. How would you describe the different forms of motion? What needs to happen to move <i>fast</i> ?
Learn about a STEM career . Tell us what career you chose and what interests you the most about this career.	Create a 3D model of a gadget, gizmo, invention, or part that you need while your're being "socially distant."	FREE SPACE	Build a car or house entirely out of edible materials. Consider having an edible car race	Design and build a pair of scissors that can cut through dough. What can you use for the blades?
Watch this video of Dominoes Falling . Can you build a domino falling chain reaction, or create something else that causes a chain reaction? Share.	Build a pendulum by tying a weight on a string. What do you notice about the swing when you change the length? How can you use this as a timer?	Did you know that windshield wipers were invented by Mary Anderson ? Experiment with making a model windshield wiper. What would you invent for cars?	Design a town square for the heart of a healthy community . What makes a community healthy and strong?	Make a building with multiple floors. What do you need to do to ensure that the building is stable? Can you install an elevator ?
Take apart a click-to-write pen to see if you can get a closer look at the mechanisms that make it work.	Grab three balls, go outside, and simulate a supernova . What do you notice about the maximum height?	Build your own Rube Goldberg Machine! I can't wait to see what you come up with here!	Create a tool that helps you measure 6 feet accurately. What makes measuring this distance challenging?	Using <i>only</i> paper or index cards, design a tall tower that can support an object. What object will you try to support?