

September 15, 2021

WELCOME TO STEAM WEEK! DAY TWO- TECHNOLOGY!

GOOD MORNING STEAM @ TOPE FAMILY! Take a moment to breathe in, breathe out and settle in for a few minutes.

We are STEAM @ Tope Elementary! EVERY ONE OF YOU IS A VERY IMPORTANT PART OF THIS SCHOOL-- YOU BELONG HERE! Mrs. Kyle and I have been teaching Standard Operating Procedures for the MakerSpace this week and will continue to do this next week as well! Once your class has gone through this process we will have our GRAND OPENING for the MAKERSPACE! CONGRATULATIONS TO OUR 3rd GRADERS WHO ARE SEEING THEIR PBL SOLUTION COME TO LIFE! Today, we are going to talk about the E in STEAM-- ENGINEERING!

Engineering is the process of creating and building structures, products, and systems by using math and science. Engineers solve problems with their inventions. They use scientific principles to design and build machines, structures, and other items, including bridges, tunnels, roads, vehicles, and buildings.

Here at STEAM @ Tope you will learn about the Engineering Design Process. You will have challenges and opportunities using the following 6 steps-- 1) Identify the problem, 2) Explore the problem 3) Design a prototype to solve the problem 4) Create the prototype 5) Test your prototype and then 6) Make it better. One thing to remember about this process is that it is fluid. This means that you might go back to previous steps at any time based on your observations and feedback in order to improve your end product!

As you walk down your path of awesome, LOOK AROUND THE WORLD AROUND YOU and take a moment to think about all of the engineering that went into different structures! Challenge yourself with an EDP problem! Become a mini-engineer!

VOCABULARY--

Engineering Design process

Prototype

previous

observations and feedback

structures

VIDEO- OPTIONS! Choose your own video and activity/discussion. I encourage you to find an opportunity to do an EDP activity/challenge with your class! Check out the options on Mystery Science

<https://www.youtube.com/watch?v=btGYcizV0il> What is Engineering? (9:36) (K-5) Really good option for looking at what engineering is and defining it for kids from Crash Course Kids.

<https://www.youtube.com/watch?v=fxJWin195kU> Engineering Design Process (5:16) (K-5) Really good option for explaining the Engineer Design Process from Cash Course Kids.

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<https://www.youtube.com/playlist?list=PLhz12vamHOnZ4ZDC0dS6C9HRN5Qrm0jHO>

Engineering Mix playlist from Crash Course Kids (this is a list of multiple videos from Crash Course Kids that relate to engineering)

<https://mysteryscience.com/lessons?query=what+is+engineer> ACCESS A GRADE LEVEL ENGINEERING ACTIVITY ON MYSTERY SCIENCE!