

Dear S.T.E.A.M Students and Families,

As a community of learners, we are all curious about the world around us. How do things work? Why do events happen in the sequence that they do? How can I improve on a product to make it more efficient? Each day we apply the knowledge we already have to a situation/problem we want to learn more about. We tap into our understanding of the principles of science, incorporate engineering concepts and utilize our mathematical thinking to figure out solutions in meaningful ways.

Our S.T.E.A.M class for the next few weeks will be driven by the Next Generation Science Standard for Engineering.

K-2 ETS1-1 Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.

For the week of March 17-21 the students will be reading the book The Most Magnificent Thing by Ashley Spires. This story will be the introduction to a Design Thinking Project. This project will inspire empathy, cultivate creativity and help to develop problem solving skills. Please feel free to jump in and complete this assignment in one fun filled afternoon or break the assignment down into manageable pieces. We will present the students creations to the class via photographs, so please snap away and send the images along to me via email! I can't wait to see what they create!

<https://www.bing.com/videos/search?q=the+most+magnificent+thing&&view=detail&mid=F610401F893DE53078DAF610401F893DE53078DA&rvsmid=DDD95CBF9E4D8F3FAB54DDD95CBF9E4D8F3FAB54&FORM=VDRVRV>

(Cut and paste into your browser)

Lesson - Listen to the Story The Most Magnificent Thing. (If you child has heard the story before, explain to them that we can notice and learn different things from the author's message every time we read a great book!) Talk about how the main character keeps trying to make an invention that will solve one of her problems (her dog can't keep up when she rides her scooter). The more her invention doesn't work, the more frustrated she gets, until she finally explodes. Now discuss ways that your child would solve this

problem. (**Empathize** and **Define** stages of the Design Thinking Process) Have your child look through your recycling bin, gather old shoe boxes, locate some tape and string and begin to think about strategies to solve this potential problem. (This is called the **Ideate** stage.) Your child should look at the materials available and sketch out a possible solution to the problem. This is a very important part of the process! Now is when the messy part begins! Have your child attempt to replicate their design with the materials gathered. They will have some successes and some frustrating moments as well. Please have them refer back to their sketches and make written notations or adjustments to their sketches as needed. The building stage is called designing a **Prototype**. Upon completion of his/her prototype your child is ready to test out their design. Place a well loved stuffie into the contraption and have your child **Test** their design. Does the animal fall out? Does the invention stay intact? Can the invention move when the child pulls it? Was this overall experience a success or is there more work to be done? Once again snap a photo or create a video to share with the class.

Additionally, here are some great free resources to use if you're looking for some free S.T.E.A.M related activities over the next few weeks!

<https://pbskids.org/designsquad> - Click on the design tab and you are off to the races! There are different engineering challenges with materials you have around your home. There is also a “How to Video” that will allow your child to be an independent learner!

<https://storytimefromspace.com/> - The kids love this site. Sometimes we listen to the stories while completing projects. Each story is read by an actual astronaut that is up in space!