

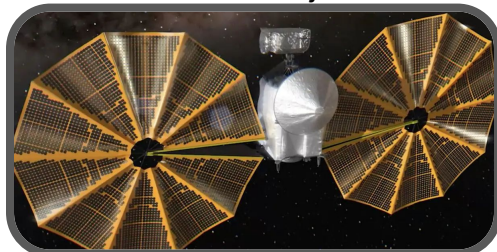
The Daily STEM

Volume 4 Issue 4

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STEM in the News

Did you know that there are about 10,000 asteroids floating around Jupiter? The Lucy satellite launched October 16th on a 12 year mission to fly near 8 of the biggest asteroids in the two clusters of Trojan asteroids. In that time, the spacecraft will loop around Earth to pick up momentum it needs to get to Jupiter's orbit.



Lucy will be powered by two large solar arrays and will travel farther than any other solar powered spacecraft. It has multiple cameras to photograph the asteroids. Some capture wavelength, color, or thermal properties. The goal of the mission is to find out more about the asteroids and try to figure out where they came from.

Learn more about the mission: bit.ly/3p5b5mJ

The Puzzle

Can you explain how $9 + 5 = 2$ and $6 - 8 = 10$?

Decode the answers using Morse Code:

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STEM Challenge

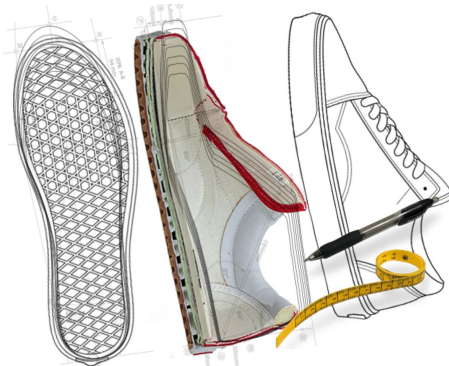
Have you ever wondered how they make spacesuits for astronauts? Special fabrics are needed to help keep them safe in space. Every suit is custom made for each crew member so that it fits them well. When the crew sit in their seats, they plug in the suit to the umbilical that provides communication, electronics, and air they need. What else would be important for a spacesuit to have? How would you design one?

Watch bit.ly/3BNpes1



STEM Career: Shoe Design

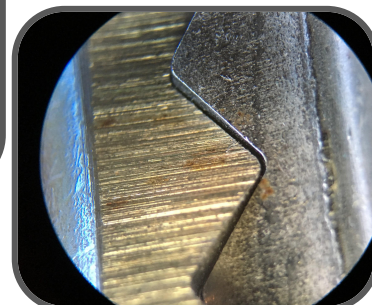
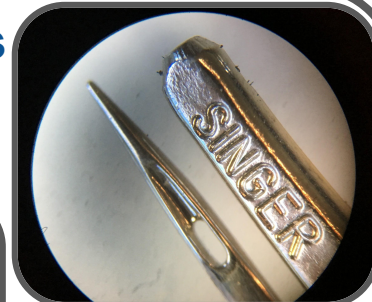
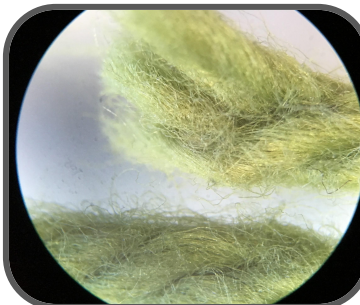
Do you like shoes? Did you ever wonder how they come up with all those different designs and colors and patterns? Shoe designers use their art skills with a knowledge of different materials to create the new shoes we buy at the store. Shoe ideas are drawn on paper and computer software. Those drawings are turned into patterns, prototypes, and eventually put into



production. Each step of the shoe design process requires a lot of STEM combined with artistic skills. What do you think are some important things to consider when designing shoes? To learn more about what it takes to be a shoe designer, check out these resources bit.ly/3ALAPH0 & bit.ly/3aOyCjb & see some designers on this playlist bit.ly/2YVJg5i

Mystery Photos

Can you identify the mystery items under the microscope?



Decode the answers using Morse Code:

- . - . - . - . - .
- . - . - . - . - .
- . - . - . - . - .