The Daily STEM

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STEM in the News

Have you ever been to the dentist? Sometimes they have to take x-rays of your teeth to make sure they are growing properly. Ana Gomez-Martinez is a Technical Sergeant in the US Air Force, and works with the dentistry department. A part on one of their x-ray machines was broken, and after two months of waiting for a new part she decided to find a solution. She visited the SparkX Innovation and Idea center on the base to see if they could help make a new part. "They said not only is it possible, but they could give me a finished product in less than four days," Gomez-Martinez said. "The product they delivered fit perfectly and was better quality and strength than the original." The part was 3d-printed using resin to make sure it would be sturdy when patients rested their chin on it. Do you know of anything broken that needs a solution? Learn more: bit.ly/3JM92eb

The Puzzle

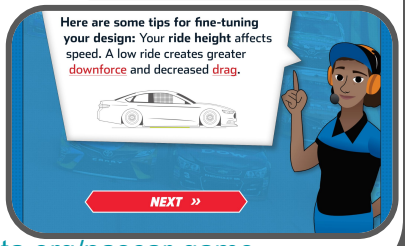
Suppose at age 6 you hammered a nail into a tree to mark your height. Seven years later, you went to the tree to see how high the nail was. If the tree grew ten inches every year, how much higher would the nail be?

Decode the answers using 1=a, 2=b, 3=c…

14 1 9 12 23 15 21 12 4 2 5 19 1 13 5 8 5 9 7 8 20 20 18 5 5 7 18 15 23 19 1 20 20 8 5 20 15 16

STEM Challenge

What helps a speedy racecar stay on the track? Cars are designed with spoilers and splitters to help them move smoothly through the air. Try finding some racecar pictures and see if you can draw your own. Or try creating a car on this website and then test it to see how it drives: my.nsta.org/nascar-game

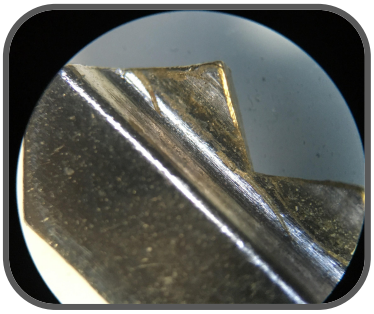


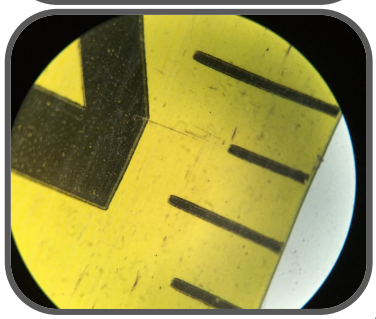
STEM Career: Auto Racing

Did you ever watch a car race? Or maybe you've tried a racing video game? There are so many ways that STEM is used to help keep racecar drivers safe as they try to win their races. Each driver has a whole team helping them. This year, NASCAR made changes to the racecars to make them safer, especially while driving side by side. They also changed from custom vehicles to stock vehicles, so each car is mostly the same. This allows new drivers and teams to compete better with experienced teams. One other big change is the wheels. The new wheels are 18 inches, more like a wheel on your car at home. They also changed how tires are attached. Instead of the traditional 5 lugs, now there is a single, locking fastener in the center of the tire. This allows the pit crew to take off and replace worn wheels faster during the race. Could you think of ways to improve the sport of auto racing? Would you want to work around racecars? Learn about the types of jobs: bit.ly/3I7a2Jn, new wheels: nas.cr/3LNqot2, and how drivers keep cool bit.ly/33DoUjZ

Mystery Photos

Can you identify the mystery items under the microscope?





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19 1 12 20 3 18 25 19 20 1 12 19 11 5 25 20 1 16 5 13 5 1 19 21 18 5

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