The Daily STEM

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STEM in the News

Did you ever drink water out of a plastic bottle? Did you wonder what that water bottle could be turned into when you recycle it? If a plastic bottle is clear, it can usually be remade into new water bottles. Companies are also turning plastic bottles into clothing, carpets, pillows, and even clamshell packages. But scientists have discovered a new way to "recycle" plastic bottles. When a laser is focused on bits of PET plastic (the kind in bottles), it heats the plastic and increases the

pressure. This causes a very tiny diamond to form. It works because plastics and diamonds are both formed from Carbon. The heat and pressure rearrange the structure of the Carbon



atoms. What could the diamonds be used for? Well, that's what researchers are still working on. For now, it's another forward step for recycling. Learn more about the diamonds bit.ly/3xVMmF9 and learn more about recycling plastic bit.ly/3BjpcsQ

The Puzzle

Suppose it costs 5¢ to break a chain link and 10¢ to weld a link. What is the



lowest cost to join the five chains into one long chain?

Decode the answer using Morse Code: /
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STEM Challenge

Have you ever rolled a toy car down a ramp? Here's a few questions to investigate: Which rolls faster, a heavier or lighter car? What angle ramp makes the car roll farthest? What ramp material makes the car roll faster?



STEM Career: Agricultural Engineer

Did you ever wonder how farmers can grow enough food for everyone on Earth to eat? Agricultural Engineers analyze the steps used to grow food and think of ways to make them more efficient. Farming equipment has changed a lot in the past 100 years. Engineers continue to improve harvests by creating robots that pick vegetables, GPS to guide tractors, and artificial intelligence to determine when to fertilize. Some Agricultural Engineers find ways to conserve water used to irrigate crops. Many parts of the world get very little rain and must be creative to conserve their water supplies. In Angola, satellite data is now being used to predict weather so farmers know when to plant and when to water their crops. They can even

see terrain on maps to find the best locations to plant specific plants. In Kenya and Tanzania. engineers are using an ancient technique



of planting in small curved mounds called "bunds" to guide rainwater to roots. Interested in becoming an Agricultural Engineer? Learn more: bit.ly/3Blkhrw

Mystery Photos

Can you identify the mystery items under the microscope?



Decode the answers	with
Morse Code:	. –



