

the Daily STEM

Volume 2 Issue 9

November 10, 2019

STEM in the News

Trimming the plants and trees in your backyard is probably not too big of a job. But what if you had to trim every bush and tree at a park? Or what if you loved gardening but you had a disability or had grown old and were unable to keep the plants looking good?

Researchers at the University of Edinburgh in Scotland have created a prototype robot that can do the trimming process. They programmed the Trimbot to recognize plants, determine which leaves need trimmed, and to make the cuts in the correct spot. Some of the difficult challenges they've faced so far include trimming in all types of light and terrain.

What other types of problems do you think they faced? What other types of robots would be good to design?

To learn more: bit.ly/2K4BgEM



STEM + Whales

In the late 1950s, there were only about 440 South Atlantic Humpback whales. Whaling, the practice of hunting whales, had pushed these giant mammals to the edge of extinction. Eventually, laws were made to prevent the hunting of whales, and since then the whale population has been steadily growing. In fact, scientists have determined that there are now 25,000 of these whales. That's as many as there were before whaling began!



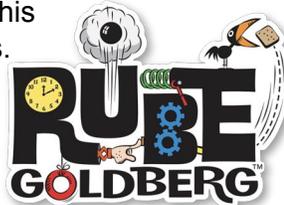
"This is a clear example that if we do the right thing then the population will recover. I hope it serves as an example that we can do the same thing for other animal populations," said Alexandre Zerbini, a whale expert with the Seattle Marine Mammal Laboratory. What can you do? How can you help animals that are close to extinction? To learn more: bit.ly/2X0wduo

Rube Goldberg Machines

Once upon a time, a man named Rube Goldberg studied engineering. He even became an engineer, until he realized he liked drawing better. In his career he drew over 50,000 comics.

Many drawings had crazy contraptions that would do a simple task in the most complicated and funniest way possible. These came to be known as Rube Goldberg Machines. Today, many people build these machines for fun. There's even a contest each year for students to build the best Rube Goldberg Machine. This year's challenge is to make a machine that turns off a light.

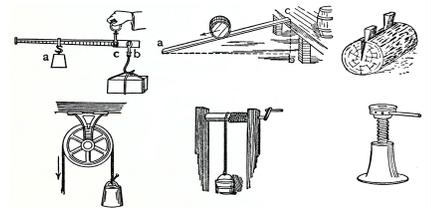
Learn more at: rubegoldberg.com



STEM Challenge

Have you ever built a Rube Goldberg Machine? Many use the "6 Simple Machines" to accomplish a task.

They're levers, ramps, wedges, pulleys, wheels and axles, & screws. Search for "Joseph's Machines" on YouTube to see some fun machines. Then look around your home or classroom and find some useful items for building. Then try making a machine to do a simple task like throwing out a piece of trash or opening a cabinet door. Remember to draw your idea first!



Mystery Photo

What's under the microscope?
(answer next week)

Last week's answer:
A Spider



The Puzzle

Suppose four students can build four greenhouses in four hours. How many greenhouses can eight students build in eight hours?

Last week's answer: Each answer was the number of circles in the number: 6 has 1 circle, 8 has 2 circles, 9 has 1 circle. So $58269=4$ because it had 4 circles.