

# The Daily STEM

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## STEM in the News

Did you ever wonder how football helmets are made? How the padding inside helps protect a player's head? The NFL gave \$1.55 million to 3 companies trying to design safer helmets. Each of the companies use 3D printing inside the helmet. They're even creating and testing helmets with different padding for players that play different positions. Ron Jadischke, chief engineer at Xenith, explained how difficult it was. "One would think if we put enough brainpower and research into it, we would easily be able to make a better helmet, but it was truly a challenge. It took some deep innovation in both materials and structures to get to where we got." How would you redesign a helmet for football or another sport? How would you test your helmet? Read more: [bit.ly/3jRRqTF](https://bit.ly/3jRRqTF)



## STEM Career: Food Scientist

Did you ever wonder how food makes it safely from a farm to your plate? Food science includes the study of animals, plants, soils, and the environment to help produce more and better foods for us to eat. Many food scientists work with companies that process, package, and deliver food to stores and restaurants.



A career in food science can even involve figuring out ways to make foods look and smell more appealing to customers. NASA employs food scientists that ensure astronauts have delicious and nutritious things to eat in space. Packaging engineers find ways to make sure your food stays fresh during delivery or on your shelf. Food production uses STEAM at every step of bringing breakfast or dinner to you. If this type of career sounds interesting, learn more about the people making food better as a Food Scientist: [bit.ly/3GAIfkw](https://bit.ly/3GAIfkw)

## The Puzzle

What is special about the following:

$$123 + 4 - 5 + 67 - 89$$

$$1 + 2 + 34 - 5 + 67 - 8 + 9$$

$$123 - 45 - 67 + 89$$

Decode the answers using Z=A, Y=B, X=C:

Gsvb fhv lmv gsilfts mrmv zmw glgzo lmv sfmwivw

## STEM Challenge

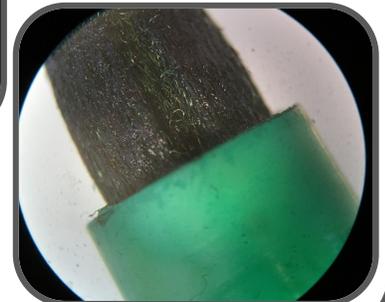
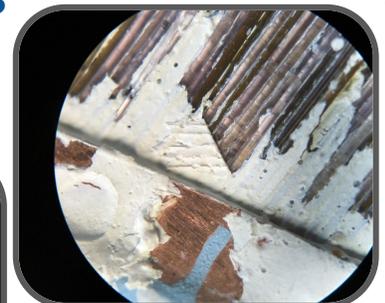
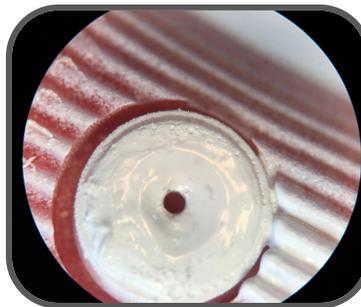
Have you ever made a catapult and launched something? How about a CAT-a-pult? Check out these instructions, print the template, and start launching some candy (or cat treats!) Try competing against your friends to see who can launch the farthest! Instructions:

[bit.ly/3Es2M8Q](https://bit.ly/3Es2M8Q)



## Mystery Photos

Can you identify the mystery items under the microscope?



Decode the answers using Z=A, Y=B, X=C...  
KZRMGYIFHSHKIZBK  
ZRMGMLAAOVNZIPVI