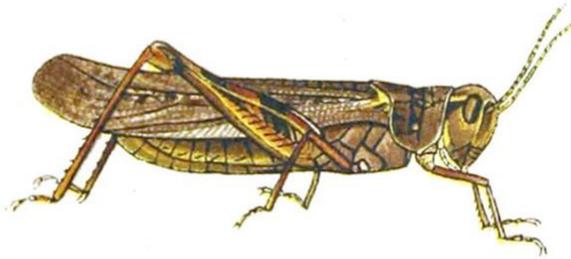


## STEMazing NEWS



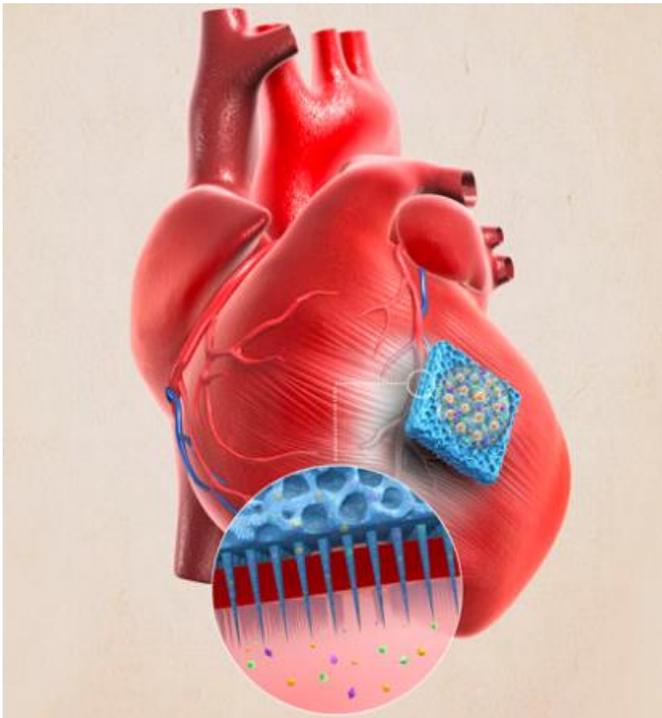
### LOCUSTS: The OPERA!

Imagine an opera singer belting out an aria about locusts. That is just what entomologist Jeff Lockwood had in mind when he created the story for *Locusts: The Opera*. The basic drama portrayed is the demise of the crop-wrecking locusts that once plagued the great plains. Now extinct—the fat lady sings! See and read more at <https://www.sciencenews.org/article/how-locust-ecology-inspired-opera>



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## STEMintersting NEWS



### HEART PATCH!

When the heart fails to have enough oxygen because of clogged arteries, the muscle cells can die. The heart stops working properly or stops altogether—a heart attack. There are few therapies that can help rebuild this heart tissue—until now. A polymer patch equipped with tiny needles can be applied to the heart to slowly pump muscle growth stimulators where repair is needed. Read and see more at: <https://www.sciencenews.org/article/patch-studded-tiny-needles-may-help-heart-attack-survivors-recover>

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## STEMazing NEWS



### BEAVER ENGINEERS!

The Arctic tundra is a vast plain of frozen land crisscrossed with streams and rivers. In the winter, things are frozen solid limiting the diversity of both plants and animals who are able to live there. In the last decades, beavers have moved in and changed the landscape. Engineering dams in critical places, beavers have made small lakes and ponds changing the landscape and at the same time, the plants and wildlife. Read and see more at: <https://www.sciencenews.org/article/beavers-are-engineering-new-alaskan-tundra>



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## STEMazing NEWS



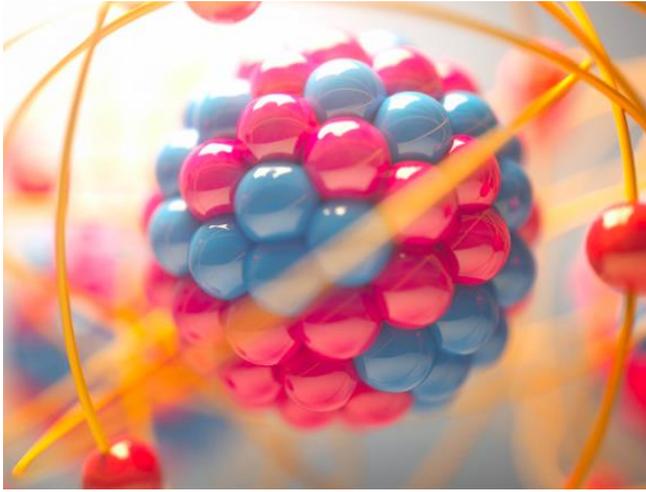
### Brain Zap—Cure Depression?

This may seem like a story from some horror film where the mad scientist sticks electrodes in the brains of people and they become monsters or zombies, but the idea of placing electrodes inside the brain is actually a therapy doctors view as helping to ease depression in some patients. Scientists placed electrodes inside patients' brains in an area just behind the eye. Depressed subject reported a change in mood! Maybe someday we can dial-in how we want to feel. See and read more at <https://www.sciencenews.org/article/zaps-certain-spot-brain-may-ease-depression>



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## STEMazing NEWS



### Where's the Mass?

Atoms are made of three particles, electrons, protons and neutrons. The mass of an atom is primarily located in the proton/neutron nucleus. In the last several decades, physicists have discovered that protons are made of quarks—sub atomic particles. When they were able to weigh the particles, however, the mass accounted for only 9% of the mass of the proton. Where's the rest of the mass? Are their undiscovered particles? It turns out that the mass comes from the energy stored between the particles—Remember Einstein,  $E=mc^2$ ? Energy=mass! See and read more at <https://www.sciencenews.org/article/proton-mass-quarks-calculation>



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