



MAD SCIENCE MONTHLY



Mad Science of West New Jersey August 2016 Edition

We would love to hear from you and encourage you to share any thoughts and/or feedback!

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Mad Science in Your Neighborhood *Upcoming Events*

August 4th 10:30 and 2:00 - Wacky Science - Mercer County Library Main Branch

August 6th 2:00 - Marvels of Motion - Warminster Twp. Library

August 18 5:30 - Slime Booth - Cherry Hill Public Library

After-School Programs

[REGISTER](#)

Summer Camps

[REGISTER](#)

Birthday Parties

[BOOK NOW](#)



Science in Your Home How to Stay Safe in a Storm

Every thunderstorm contains lightning, and a lightning strike can cause a lot of damage. A bolt of lightning contains up to one billion volts of electricity! Here are some ways to protect yourself if you are outside during a lightning storm.

- Get inside a building or a vehicle. If lightning strikes a car, the electricity will be shunted into the ground, leaving you untouched.
- If you are swimming, exit the water immediately. Water conducts electricity.
- Avoid standing near or touching anything metal such as umbrellas, bicycles, or lampposts.



60 Second Science Challenge

How to Grow Crystals at Home!

Crystals are atoms or molecules that are arranged in a repeating pattern, creating a geometric shape. Diamonds, sugar, and snow are all examples. Create your own crystals using this easy procedure.

What you'll need:

- Epsom salt
- Food coloring
- Beaker, cup, or small bowl



What you do:

Step 1: Add 1/2 cup of Epsom salts and 1/2 cup of very hot tap water to your container.

Step 2: Stir for one minute, or until all the salt has dissolved in the water.

Step 3: Add a few drops of your food coloring.

Step 4: Place your container into the fridge.

Step 5: Check your container after three hours. It will be full of crystals!

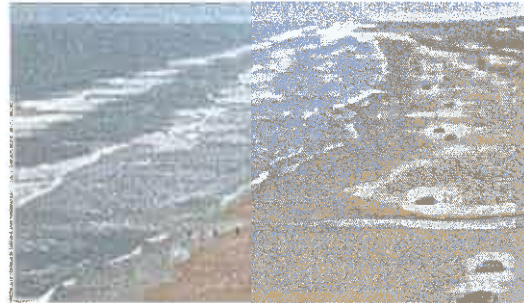
The Science Behind It

The temperature of water determines how much salt it can hold. Hot water molecules move more, leaving more space between molecules. The salt dissolves faster in the spaces of the hot water. Cooling the solution rapidly slows down the water molecules. They move less and have less space between them. This makes less room for the dissolved salt. The salt molecules bump into each other and join together to form a crystal shape.



Science Around the World
Fun Facts - The Longest Beach in the World

The longest beach in the world is Praia do Cassino (Casino Beach) located in Rio Grande, [Brazil](#). It is approximately 254 km (158mi) long. This pristine coastline is known for its powdery, white sands and warm temperatures!



Straight From the Mad Scientist's Mouth
Question and Answer - Fireflies

Mandy from Florida asks: Why does my dog pee in many different places in our neighborhood?

Your dog is doing something we describe as marking their territory. A dog urinates in a certain area or on an object to leave its scent, The scent of its urine is designed to let other dogs know that he "owns" that area!



Sparking Imaginative Learning