37 - Marie Curie

What do you know about Spider Man? More specifically, how did Spider Man get his powers? Did you say, he got bit by a spider? Nice. But it wasn't just any spider. It was a False Noble Widow spider that had been exposed to RADIATION. But here's the thing... If you think the origin story of Spider Man is cool -- you're going to love hearing how radiation was discovered. And unlike Spider Man, it's all true!

Isn't it crazy to think that a machine can take a picture of you from the outside and see what's going on inside? X-rays can tell if your hurt ankle is a nasty break, a tiny fracture or just a sprain. The modern day X-ray you all know and love exists in large part thanks to a woman named MARIE CURIE!

Questions We Answer on Todays episode:

1. What do you call the machine at the doctor's office that takes pictures of your insides.
2. How did Marie Curie use radiation and radioactivity to save lives during World War I?
3. How many Nobel Prizes did Marie Curie win?

Grow Their Mind

Marie Curie is one of only 4 people in history to win more than one Nobel Prize. And she's still the only person to ever win for two different types of science - CHEMISTRY and PHYSICS. She also became the first female Professor at her former school, the Sorbonne... But even more impressive, Marie put her scientific discoveries to good use and helped save countless lives.

During World War I, Marie provided portable X-ray machines that allowed doctors to immediately see broken and fractured bones of the wounded soldiers. In addition, at the start of World War I, France put out a call for gold to help fund their war effort. Marie Curie offered her Nobel Prize medals to the French government to be melted down. But when the government refused her generous offer, she insisted on donating her Nobel prize money to the war effort.

Activities

26 Bones Find the 26 Bones in your Foot. Marie Curie's invention of the field X-Ray allowed doctors to instantly diagnose broken bones. Your foot has more bones than any other part of your body! See if you can find all 26 bones - without an X-Ray! Need some help? Check out all the bones, over here.

Colored Cloth in Sunlight - Find several cloth items, such as shirts or towels, of various colors. Lay them on a sturdy, level surface in the bright sunlight. After 15 to 20 minutes, feel each one and note which is the warmest. Because dark colors reflect the least sunlight, they absorb the most heat. Light colors reflect the most sunlight and therefore stay cooler. That's why people tend to wear lighter colors in hot summer weather.

Additional Resources

1. DIY Science: Leaf Skeletons? You'll need some leaves and something called "Washing Soda" (sodium carbonate) which can be found in the detergent section of most grocery stores. Boiling water and the sodium carbonate (which has a pH of 11) works together to break down the flesh of the leaf. The intricate lacy pattern you are left with is actually a pattern of hollow veins (like the above picture), which make up the skeleton. Follow the steps by steps process here...
2. Video: Convection Current Experiment - Convection currents transfer heat from one place to another by mass motion of a fluid such as water, air or molten rock. Enjoy this Fun Experiment Video.
3. Chemistry for Kids: Radioactivity and Radiation? Learn additional interesting facts and information about radioactivity and radiation in this article

Kid News

Sesame Street created a kid-appropriate guide to understanding homelessness, because as many as 1 in 10 children find themselves homeless at some point. Their resources offer a way to discuss the topic of homelessness with a child.
People become homeless for different reasons: natural disasters, not having enough money to pay for a place to stay, loss of job/income, getting sick, or having to leave their home suddenly in order to stay safe. Losing one’s home is a very challenging situation and it's easy to lose hope. It's important for those suffering through it to learn ways to cope as they do what it takes to get back on their feet. At the same time, those more

fortunate can learn ways to help those in need. Discover additional resources, printable materials, videos and more topics to help families- Visit the Sesame Resources here[1]

[1] This activity guide is for the Who Smarted? podcast www.WhoSmarted.com