

Front Page News

Tuesday, March 26th, 2024

Introducing children to the magic of science



JULIE ANDERSON / Daily Courier

Emilia Joiner, 5, sitting with her dad Caleb, reacts during the chemistry magic show at the Rogue River Library on Saturday as Rogue Community College chemistry instructor Marissa Shepherd showcased her scientific know-how with a colorful display of chemical reactions and mixtures. When asked who wanted to be a scientist when they grew up, Joiner was one of the first to raise her hand.

By Cara Denney of the Daily Courier

ROGUE RIVER — There were no rabbits pulled out of top hats and no one sawed in half, but the Chemistry Magic Show at the Rogue River Library on Saturday had just enough jaw-dropping tricks powered by science to convince 5-year-old Emilia Joiner to think about becoming a scientist one day.

Joiner was too excited to say anything, but eagerly raised her hand when Rogue Community College chemistry instructor Marissa Shepherd asked who wanted to be a scientist when they grew up.

It was the kind of reaction Shepherd and RCC student volunteer Kabrina Cox were looking for during their hour-long presentation — getting children interested in science.

"I want this to make chemistry fun for them," Shepherd said. That's why she has been doing these type of educational outreach demonstrations since she was in graduate school, about 10 years ago.

And what's not fun about exploding hydrogen-filled balloons, shattering chemically frozen flowers, watching green foam ooze and even enjoying a bowl of ice cream made with liquid nitrogen?

The experiments were designed to be more than just entertainment, but to also be woven throughout with real learning, as well.

For example, when Shepherd added chemicals to a clear cylinder about 2 feet tall and 6 inches in diameter, green foam began to ooze up, filling the tube with what one boy watching called "elephant toothpaste."

Shepherd told the children that the combination in the tube had created oxygen.



She then lit and quickly extinguished a fire burning on a long splinter she was holding. Then she dipped the still glowing embers at the tip of the splinter into the cylinder and the fire blazed alive again.

"What does oxygen do to fire?" Shepherd asked the standing-room-only group of parents and children gathered for the show.

"It burns. It burns," a chorus of voices answered, peppered by intermittent oohs and ahhs every time the splinter ignited again.

From fire to ice, Shepherd took the children outside to dip chrysanthemums, carnations and even a few long-stemmed roses into a container of liquid nitrogen until they froze. Then she let the children experience that transformation by hitting the flowers on the sidewalk and watching them shatter.

Mishana McGowan's mom Liana watched with amusement as her 5-year-old daughter so very gently tapped the rose on the cement and then looked to Shepherd, wondering why it didn't break up as the other flowers had done.

"You need to hit it harder," Liana McGowan said, coaching her daughter in how to break the cryogenic rose.

Shepherd and Cox made sure the event was a hands-on experience for all the children present.

One experiment produced a rainbow of liquids in glass chemistry flasks as part of a demonstration showing varying pH, or acid, levels. Another experiment caused the flames of long fireplace matches to burn different colors depending on whether they had been dipped into standard sodium, copper salt or other various salts.

Like most of the children there Saturday, Kyle Black was wide-eyed and open-mouthed in response to many of the "magical" chemical reactions Shepherd and Cox created. But Black still didn't think that meant he should pursue becoming a scientist.

"What if I make the wrong thing and it explodes my whole entire lab?" Black asked.

"Ah, but as a chemist, I know when it's going to explode," Shepherd answered.

Margaret Myers, 7, and her sister Hattie, 10, weren't worrying about explosions.

The girls had just one question for Shepherd, but were shy, so their mother, Kate Gronemyer, posed the question for them.

"The girls want to know where they can buy liquid nitrogen."

Reach reporter Cara Denney at 541-474-3726 or cdenney@thedailycourier.com.