

## Pint-size scientists

Day camp teaches big concepts to little ones

By Magdalena Wegrzyn  
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Hawley Penfold, a precocious 6-year-old from MeadowLark Montessori in Brighton, succinctly summed up her science camp experience:

"It sort of feels like school class," Hawley said, "except our teacher wears a lab coat."

The "school class" was **Radical Reactions**, a science day camp from Dec. 29-31 at the St. Vrain Memorial Building, 700 Longs Peak Ave.

The teacher cloaked in a lab coat was **Nicole Gonzales**. Known to her students as "**Nucleus Nicole**," Gonzales is an employee of **Mad Science of Colorado**, which offers science programs for children along the Front Range.

Gonzales said the science camp laid the foundation for explaining complex scientific principles. "When they get to junior high or high school, I want them to go, 'Oh, I've seen that,'" Gonzales said. The class dipped into college-level organic chemistry, for example, by constructing olive oil and chocolate molecules using marshmallows and toothpicks. But Davin Kirkevold, a 7-year-old second-grader at Twin Peaks Charter Academy, said he was really there for the "blow-up science."

Gonzales gave her class just that on the first day of the camp when she lit an empty tea bag on fire. As the bag burned, it created an upward draft of rising air, lifting the smoldering bag off the ground. Gonzales said the class was so captivated by the experiment that she repeated it three times.

For Haley Drexel, 10, the experiment taught her scientific principles and, incidentally, a life lesson. "Things are not always like they seem," Haley mused mysteriously. The fourth-grader at Burlington Elementary said she aspires to be a marine biologist someday.

On a calmer Tuesday morning, the class learned about the scientific method. Gonzales distributed six cups to each group, and the mini-scientists worked on identifying the solution in each cup. Nicole Drexel, 7, Haley's sister and a first-grader at Burlington Elementary, flicked her hand back and forth inches from each cup, practicing "wafting" each solution.

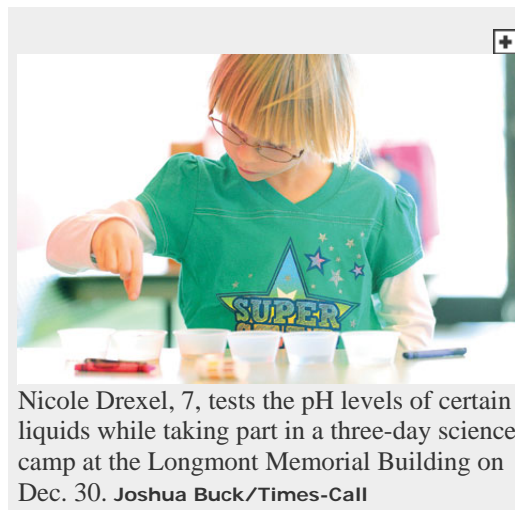
Hawley had other ideas. "This smells good," she said as she sniffed a clear, bubbly liquid. "It smells like sort of Sprite-ish. I wish I could drink it." That prompted Gonzales to remind her class about proper protocol. "Remember, you're never allowed to taste things in a science lab," she patiently explained.

In addition to wafting, the groups dipped strips of pH paper in each cup. When one of the strips faded to pale green, the astute observers classified it as everything from "barf green" to "tree green." At science camp, even snacks are experiments. Heating popcorn and making ice cream? Both helped explain chemical reactions.

Longmont's Recreation Services has had a contract with **Mad Science** for about five years, and science camps have been offered during school breaks for about three of those years. "The parents tend to look for classes that will keep their children's minds engaged," said Marty Page, a recreation program specialist. For the students, the science camp was about a little more than science. "We worked together as a team to find out some stuff," Hawley said.

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Nicole Drexel, 7, tests the pH levels of certain liquids while taking part in a three-day science camp at the Longmont Memorial Building on Dec. 30. Joshua Buck/Times-Call