

EDUCATION

A not-so-genuine CATastrophe

STEM's practical purposes touted at Central High

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THE PUEBLO CHIEFTAIN

For youngsters, science can open doors to exciting worlds previously unexplored.

It also, as 105 eighth graders learned Friday, has the potential to save lives when disaster strikes.

As a way to introduce public and private school students to the STEM curriculum available at Central High School, the Orman Avenue institution hosted "Hurricane Wild Thing" — a problem-based, hands-on symposium designed to impart science-based skills and knowledge needed to survive, and assist others, in a critical situation.

Cleverly tagged CATegory 2022 in honor of the Central mascot and the graduation year of the eighth graders, the scenario reflected 2017's unfortunate trend of punishing hurricanes.

"The idea is to introduce eighth graders to what happens at Central by using hurricanes as the model," explained Morganlee Kempf, Pueblo City Schools' (D60) STEM/Science specialist.

As alarming footage from Houston and Florida illustrated, a disaster zone can best be described as "water, water, everywhere," most often with destructive results.

Fittingly, several CATegory 2020 stations used water to communicate the significance of science in survival.

"Make note of what



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ABOVE: Nizhoni Valdez, 17 (left), explains her team's solar-panel powered car during CATegory 2022 at Central High School Friday, which offered STEM-based responses to natural disasters. Valdez's team members are Connor McDonald (middle) and Marcus Montoya.

RIGHT: Madalynn Yarbrough (right) and Mollie Schloss demonstrate water-rescue techniques. 'This is a skill that can be used throughout your life,' instructor Marla Lanham told the eighth graders.

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the water looks like before you pour it into the filtration device," said Central educator Jamie Withnell as St. John Neumann School

students funneled filthy liquid into an inverted plastic bottle.

"So as it makes its way through the filter, you want to compare the filtered water with the dirty water that went in."

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STEM/

Through various combinations of sand, pipe cleaners, river rocks and paper muffin cups, the students fine-tuned the makeshift filtration method until the result was relatively clear.

"It looks pretty clean," offered one student. "I don't know how clean and I don't know if I'd drink it, but at least I can see through it."

The key, noted St. John Neumann eighth-grader Will Dammann, is going natural.

"What we found to work best is a muffin holder on the bottom of the bottle and adding large river rocks and sand," Will explained. "Natural materials allowed the water to come out free of any debris."

Inside Central's swim-

ming pool, spectators watched a demonstration of what's come to define hurricane disaster zones.

"Does anyone know the difference between an active and a passive victim?" asked instructor Marla Lanham as three Central students practiced water rescue techniques on each other. "A passive victim will be face down in the water and may be unconscious.

"So we use the do-si-do technique — you pull them and roll them over and they may become conscious."

The curious eighth-grade contingent also observed the rescue of a submerged "victim," removed from the water and placed on a backboard for treatment by emergency personnel.

Water rescue, Lanham said, isn't just reserved for disasters.

"This is a skill that can be used throughout your life," she said.

Carolyn Morrison, a music teacher at Central, focused on the power of syncopated rhythm in a rescue scenario.

"Just in case you're ever stuck in a building and you couldn't speak, or if you got the wind knocked out of you, we're going to use Morse Code to tap out 'SOS,' the distress signal," Morrison said.

This primer was followed by something a bit more frivolous, as students were encouraged to use a variety of items to clamorously tap out their first names in code.

"Let's see who has the coolest sounding name,"

Morrison said. "We're going to make some rhythms and beats and I want us to be as noisy and loud in here as possible.

"I'm a music teacher — I don't ever get bored of noise."

Within Kevin Buchanan's STEM classroom, students were charged with finding a way to power a vehicle when gasoline is in short supply.

"If gas pumps fail, how are we going to get people out to a safe location?" Buchanan posed. "We need a portable, easy-to-assemble makeshift vehicle — a solar car."

Although these emergency vehicles were of the miniature variety, they performed impressively, zipping across

tables with but a touch of heat from a lamp.

"Look at that car go," Buchanan said as a student's creation covered a wealth of ground in no time flat. "With two solar panels on it, it's almost a turbo."

As an additional challenge, Buchanan tasked students with calculating the rate of the cars' speed using mathematics.

"The fastest time so far? 1.75 feet per second," Buchanan offered.

For parents and guardians of eighth graders eager to learn about Central and its offerings, a Parents Night is slated from 6-8 p.m. Wednesday.

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