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M&M's and saving the world's oceans: Elmwood Park STEMrangers on a mission

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Mitchell Olson, a second-grader at Elmwood Elementary School, had to make a quick trip to the washroom during the District 401 <u>STEMrangers</u> event at John Mills Elementary School on Oct. 23.

He wasn't away long, though, rushing back to a table in the school gym where he was learning about the effect of oil spills on the world's oceans.

"He was on top speed coming back," marveled his father, Jason, who had joined his son at the event.

Understandable. Mitchell, along with other kindergarten through eighth-grade students at the event, had been entrusted with an important mission.

No less a luminary than Philippe Cousteau, grandson of Jacques-Yves Cousteau, the famous oceanographer, had greeted students and their families in a video, recruiting them in the fight against pollution of the world's oceans, affecting everything from "coral reefs to sea turtles," he said.

"When you save the ocean, you save the planet, which means you save all of us. Are you ready to make a difference?" said Costeau in the video, throwing out the challenge.

Students armed with Mission Impossible-looking folders, gathered at tables, or "Recon Stations," in the school gym. They had family members alongside as they were invited to dive deep into the issues.

At one of the tables, Jayden Ramos, a second-grader at Elmwood Elementary School, examined a water-filled foil pan with black globules floating on top. Mixing

oil with a little food color, Paul Uhler, his technology instructor, had created a mini-oil spill.

"This is just a pan with a little bit of oil," Uhler explained. "Can you imagine a big ocean — how it would be to try and clean up?"

Jayden was offered a sponge, cotton balls, even feathers, to try to extract the oil from the water. Alongside, his mother, Yesenia Ramos, offered encouragement.

"It affects the ecosystem," she leaned over to tell her son. "What would you do to stop the oil from spreading?"

At another table, older students mixed a solution of hot water and milk, which hardened and congealed into plastic in a cup.

"Gross," one child reacted.

"I know, it smells bad. It's not very good for the environment," pointed out their instructor.

At her station, Roberta Predovich, a fifth-grade math and science teacher, invited students to mix hot water with some M&M candies. The candies were picked to represent the world's coral reefs.

"Let's see if we can cause some waves," she said, swirling the water and creating the conditions for global warming. Then, she picked out an orange M&M, which had considerably lost its luster.

"Look at the difference — a huge difference wouldn't you say?" she said.

Morgan Freeck, the district's instructional coach, explained that "in science, with the next-generation science standards, we do a lot of hands-on inquiry based learning."

Freeck, with Leah Gauthier, the district's director for curriculum and instruction, introduced the program. With the new approach, Freeck said, students first explore the science, and then they follow through "with the knowledge and explanation after."



As mother Yesenia Ramos looks on, <u>STEMranger</u> Jayden Ramos tries one of the experiments at the District 401 hands-on program on saving the world's oceans. (Pioneer Press)

"We really believe in a hands-on approach, so students can apply the complex science vocabulary and words to something they've already experienced," she said.

Superintendent Nicolas Wade said the district held the event in the wake of a STEMscopes program in February, which generated a positive response.

"This is a deeper dive, no pun intended — further exploration of what <u>STEMscopes</u> offers, how we're trying to change the learning experience for students," he said, "especially when it comes to science at a younger age."

"I think it's great people are coming out," he said. "I think it's a great way for children and their parents to become involved in the hands-on approach to science, which has changed significantly in how we teach it in the last 10 to 15 years."

He noted that the district has another <u>STEMscopes</u> event, also with the ocean as its theme, scheduled for early next year. The event, LITexplorers, a Title One Family Event, is scheduled for 5 to 7:15 p.m Feb. 26 at Elmwood Elementary School, 2319 N. 76th Ave.

Jason Olson, at the Oct. 23 event with his son Matthew, is an obvious fan of the direction the district is moving.

"I think it's great because it gives some tangible examples that will be memorable to the kids," he said. "Then, at home, we can build on those examples and help to reinforce the messages behind them. I think it's a great way to introduce these concepts."



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