

## Teacher bringing South Pole to classroom

Description - (Photo by Mike Hensdill/The Gaston Gazette) Liz Ratliff, a teacher at Gaston Day School, will travel to the South Pole as part of the historic IceCube expedition in early December. On Friday, October 26, 2012, she showed off some gear which she will be wearing when she conducts math and science experiments at the South Pole

By [Amanda Memrick](#)

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### PHOTO GALLERIES



• [South pole](#)

The police officer might not have believed Liz Ratliff's excuse for speeding when he stopped her for driving too fast a year ago.



When the officer asked why she was going so fast, she told the truth: she'd just learned she was going to the South Pole.

The Gaston Day School math teacher will travel to the southernmost point of the Earth for three weeks in December as part of an expedition conducting research.

Ratliff set her sights on traveling to the South Pole in 2009, when she became involved with IceCube, a project designed to study microscopic particles at the South Pole. She learned about the project as a Knowles Science Teaching Fellow during one of the group's annual meetings.

Ratliff will be part of a team using the IceCube Neutrino Observatory, a huge telescope buried under the ice at the South Pole. The telescope is looking for tiny particles called neutrinos. Scientists don't yet know what neutrinos do, Ratliff said.

She trained to be an alternate for teachers involved with a PolarTREC expedition to the South Pole in 2009. The next year another teacher was chosen to go to the South Pole as the

construction of the IceCube telescope was completed. Ratliff said she didn't expect to get a chance to travel to the Antarctic.

Then she received an email asking if she was still interested in going to the South Pole with IceCube.

"I got a speeding ticket right after they called to tell me," Ratliff said.

In February, Ratliff went to Alaska for training with PolarTREC, a program that helps teachers participate in hands-on field research experiences in the polar regions. She learned more about the cold climate where she'll be spending Dec. 7-28 and ways to keep up with her students, family and friends back home. Ratliff will keep a journal so the public can keep up with her and she'll also host a webinar that anyone can tune-in to and see some of her findings.

Ratliff has been taking a slew of medical tests to get the approval that she's physically fit to go. She also had to get dental tests to make sure she doesn't have any dental issues that could come up when she's in the Antarctic.

Going to the South Pole fulfills a dream for Ratliff.

"For me, I've always been kind of an explorer. When I was growing up, I wanted to be an astronaut," Ratliff said.

While this isn't space, it is a chance to be in a remote location that not many humans have explored.

To get to the South Pole, Ratliff will fly to Los Angeles. She'll fly from Los Angeles to Australia to New Zealand. Then she'll fly to the coast of Antarctica, then to the research station at the South Pole. The flight across the South Pole will take four hours.

Once at the South Pole, Ratliff will be living in what's essentially a dorm room. She'll be able to take one two-minute shower each week. The temperature in the winter ranges between -40 degrees to -94 degrees. In the summer, temperatures are between -5 degrees and

-31 degrees. Ratliff's expedition takes place in summer because the South Pole is in the southern hemisphere.

Ratliff will be helping with the experiment and doing some of the tasks that would take away from the scientists, like checking on temperatures and water levels. She'll also be conducting experiments suggested by her Gaston Day School students. One student wants to see Ratliff build a snowman and see how long it takes for it to be disintegrated by the wind.

"Actually being out in the field is going to be really cool," Ratliff said.

*You can reach reporter Amanda Memrick at 704-869-1839 or follow @AmandaMemrick on Twitter.*

Want to follow along with teacher Liz Ratliff at the South Pole?

She'll be keeping a journal and writing about her experiences at [www.polartrec.com/member/liz-ratliff](http://www.polartrec.com/member/liz-ratliff)