



## Teacher takes scientific expedition to the South Pole

Posted by CW Editor on October 19, 2012 in Education | 0 Comment

by [Tori Hamby](#)

Environmental science students at Lake Norman High School will get an up-close view of Antarctica's glaciers and ice shelves without having to put on as much as a jacket to keep warm.

Teacher Mike Lebaron will travel to Antarctica next month to participate in a research expedition to study subglacial lakes and streams. His students back in Mooresville will follow his six-week stay as he checks in with blog updates and virtual question-and-answer sessions about his experiences via [www.polartrec.com](http://www.polartrec.com).

"The project involves drilling 700 meters, about 2,500 feet, down to the bedrock underneath the ice," Lebaron said. "We will be sampling the sediment and looking at life forms that haven't seen light for over a million years."

Lebaron's trip is sponsored by PolarTREC, an Arctic Research Consortium of the United States program funded through a grant by the National Science Foundation that sends science educators on Arctic and Antarctic research expeditions.

Lebaron, a former field geologist, will work on the Whillans Ice Stream Subglacial Access Research Drilling project – or WISSARD – with North Illinois University professor Ross Powell at McMurdo Station, a U.S. research center at the southern part of the continent.

The purpose of the expedition, Lebaron said, is to examine the pristine subglacial environment and study polar ice movement. His trip was delayed for a year because the technology to drill into the ice without introducing contaminants was underdeveloped.

"The researchers are required to keep the project clean so that whatever is down there doesn't get destroyed outside of its normal, undisturbed environment," he said.

Researchers will use a drill that blasts hot water onto the ice to melt away about a 3-foot hole of ice on Subglacial Lake Whillans, a part of the Whillans Ice Stream. The heat will also kill bacteria that could travel from the surface and disrupt the ecosystem.

Sarah Crowley, an education project manager with PolarTREC, said teachers often tell her organization that they have a difficult time showing students how science affects the world outside of the classroom. The program gives students a virtual window to look at environmental science's real life applications, she said.

"Teachers tell us that their out there teaching science, but it gets hard because you don't have the real-life experience to put with the textbook," she said. "We build upon some of the country's top-notch teachers to spark a student interest in Arctic and Antarctic research.

PolarTREC selects about 12 teachers from the 200 who apply to the program each year, It pays all of a teacher's trip expenses – including the cost of a substitute teacher for the six-weeks he or she will be out of the classroom.