



Join us for  
Antarctica's Past  
Antarctica's Present  
Antarctica's Future  
A special event!

### Reading Antarctica's ROCK CORES

How do we know what the climate was like in the past? One way is by studying ice cores. These are long cylinders of ice that have been drilled from the ice sheet in Antarctica. They contain a record of the atmosphere and the environment over thousands of years.

Ice cores are like a time machine. They tell us about the temperature, the amount of snowfall, and even the amount of greenhouse gases in the atmosphere. This information helps us understand how the climate has changed over time and what might happen in the future.

Ice cores are also used to study the history of the Earth's magnetic field. This is because the Earth's magnetic field is recorded in the minerals that are trapped in the ice. By studying these minerals, scientists can learn about the Earth's magnetic field in the past.

Ice cores are a valuable source of information about the Earth's climate and environment. They help us understand the natural variability of the climate system and the impact of human activities on the climate.

### TINY CELLS Antarctica

Antarctica is a continent of extremes. It is the coldest, driest, and windiest continent on Earth. Despite these harsh conditions, there are many tiny organisms living in Antarctica. These organisms are adapted to survive in the extreme cold and dryness.

Some of the tiny organisms found in Antarctica are bacteria, fungi, and algae. These organisms are often found in ice, snow, and rocks. They are able to survive in the extreme cold by producing special proteins and enzymes that allow them to function at very low temperatures.

These tiny organisms play an important role in the Antarctic ecosystem. They are the base of the food chain and provide food for larger animals. They also help to break down organic matter and recycle nutrients in the environment.

Studying these tiny organisms can help us understand how life can survive in extreme environments. This information is important for understanding the potential for life on other planets.

Times photo by Dave Schwarz, dschwarz@stcloudtimes.com  
St. Cloud State University geology professor Kate Pound explains her upcoming research trip to Antarctica to fourth-graders at Talahi Community School.

# DEPARTING FOR ANTARCTICA

## Professor talks with students about research trip

By **Dave Aelkens**

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Kate Pound covered her head with three layers of clothes, slipped some snow goggles on her face and asked, "Could you have recognized me if you didn't know me?"

The group of fourth-graders at Talahi Community School who were learning Friday about Pound's upcoming trip to Antarctica gave her a resounding "no." Pound, a St. Cloud State University geology professor, leaves Oct. 1 for Antarctica on a mission for ANDRILL. The international organization is drilling in Antarctica to learn more about the Earth's climate.

Pound will analyze samples from the McMurdo Ice Shelf to track climate changes during Antarctica's 17-million-year history. Scientists believe that

learning about the continent's previous climate can tell them what's in store for the future.

"It was nice of her to explain what they are doing. It sounds like complicated drilling," said Vince Vosen, a fourth-grader.

Pound brought five large posters and a bag full of the warm clothes she will have to wear to deal with the South Pole's icy temperatures. Pound and the ANDRILL group will be there during what is summer in Antarctica, when temperatures hit about 2 degrees below zero and it is daylight most of the day.

"When we go outside, we are going to have to wear our cold-weather gear," she told the children. "It's going to be very cold."

### McMURDO STATION



Times graphic

### MORE ONLINE



To see a video of Kate Pound, go to [www.sctimes.com](http://www.sctimes.com) and click on the link to this story.



Kate Pound shows an area of Antarctica where she'll be researching.