It's UVUH, WOLO!  I SEE PEOPLE! WHO KNOWS! LET'S FIND OUT! EMMA BIT COLD. LET'S GET INSIDE THE ICL! I'LL DIG AND FIND THE TELESCOPE! WHAT A BRAVE AND SILLY PENGUIN. WHAT?! WE HAVE TO SAY HI! I'VE NEVER MET A HUMAN BEFORE... SEE THAT BLUE LIGHT? IT'S PRODUCED WHEN A TINY PARTICLE CALLED A NEUTRINO INTERACTS WITH THE ICE. A TELESCOPE RIGHT BELOW MY FEET? ROSIE, WHAT WERE YOU DOING? BEAUTIFUL! I COULD WATCH THIS ALL DAY. I BET THEY WILL KNOW WHAT THE BLUE BOX IS. WHO'S THERE? EMMA. KNOCK KNOCK. ON AN ADVENTURE! DON'T WORRY, ROSIE. WE CAN HELP YOU OUT! YES! TRY THESE SPECIAL GOGGLES AS WELL. THEY LET YOU SEE BELOW THE ICE. LOOK DOWN AT THE DETECTOR! THIS IS SO COOL!!! THE VIEW WAS SPECTACULAR, BUT IT WAS A LONG WAY DOWN! ROSIE AND GIBBS FELT TOTALLY COOL IN THEIR NEW WINTEROVER GEAR.

WOW! THIS THING IS MASSIVE! THIS IS ICECUBE: A CUBIC KILOMETER OF ICE FILLED WITH OVER 5,000 LIGHT SENSORS. MAYBE YOU SHOULD BECOME AN ICECUBER, TOO. SOUNDS LIKE A PLAN! BUT OUR FIRST PENGUIN ICECUBERS WILL NEED SOME TRAINING TO SURVIVE AT THE SOUTH POLE.
Rosie’s Discoveries

Waterover

Waterovers are the few people who spend the long, dark winter at the South Pole. From February to October, which is winter time in Antarctica, planes can’t land at the Pole and the waterovers are totally isolated.

IceCube Lab (ICL)

The ICL is the only IceCube structure visible, since the detector is buried in the ice. It houses racks of computers that collect data or data on the site.

Detector

The IceCube detector consists of a grid of light sensors, called DOMs, attached to 86 cables, or strings, spread out over a cubic kilometer of ice. So, “Ice-cube” is actually an appropriate name for this detector.

Neutrinos

Neutrinos are tiny particles that travel through the universe. They are light except that they can travel through everything, even the entire Earth! Neutrinos are also called ghost particles because they are very hard to catch.

Write an Event

Scientists create colored displays to show what happens as a result of a neutrino interacting with the ice in or around IceCube. A red DOM indicates the first light that was seen, while green and blue represent light seen later. The size of the bubble tells us how much energy was detected.

IceCuber

If you work at IceCube, whether or not you are a scientist, you are an IceCuber. I’m excited to be the first penguin on the team!

Adventures with Rosie & Gibbs the lost penguins

Adventure 2: A Detector in the Ice