

# ADVENTURES WITH **ROSIE & GIBBS** *the lost penguins*

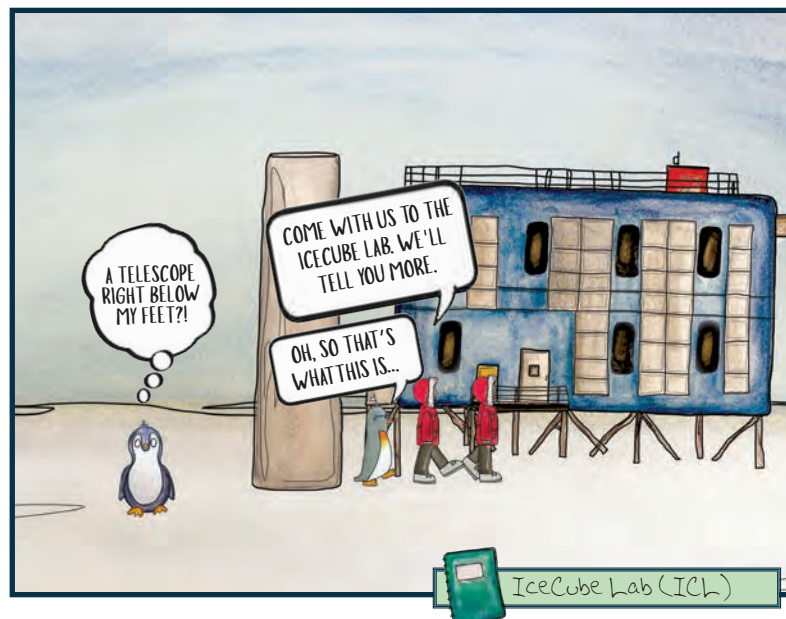
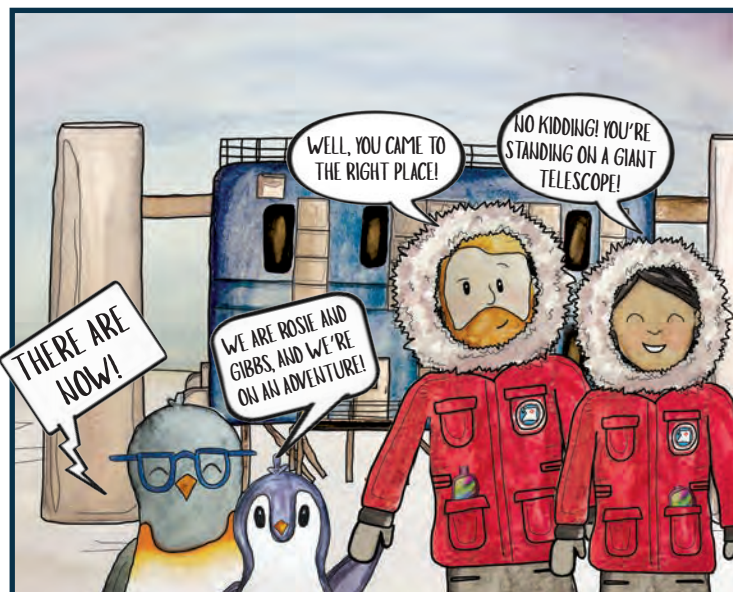
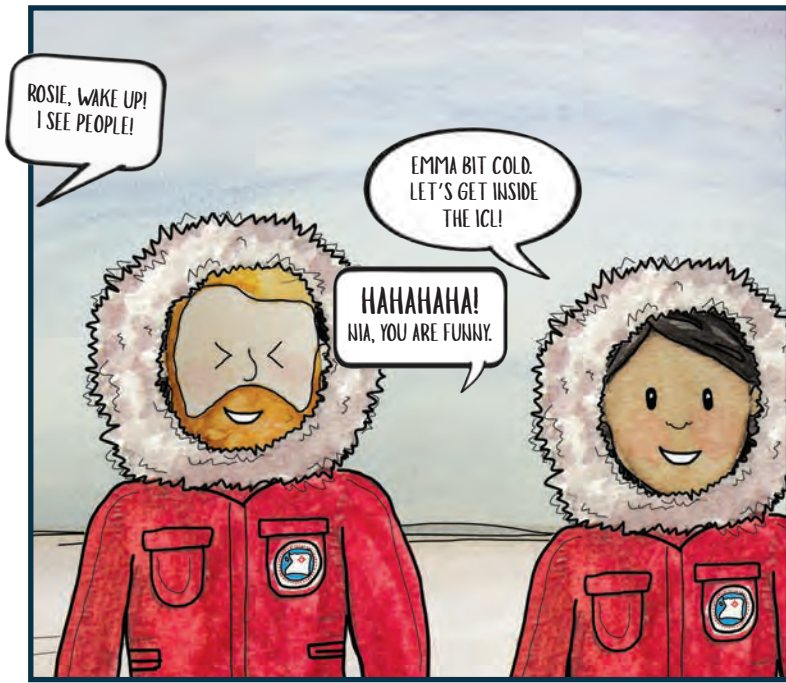
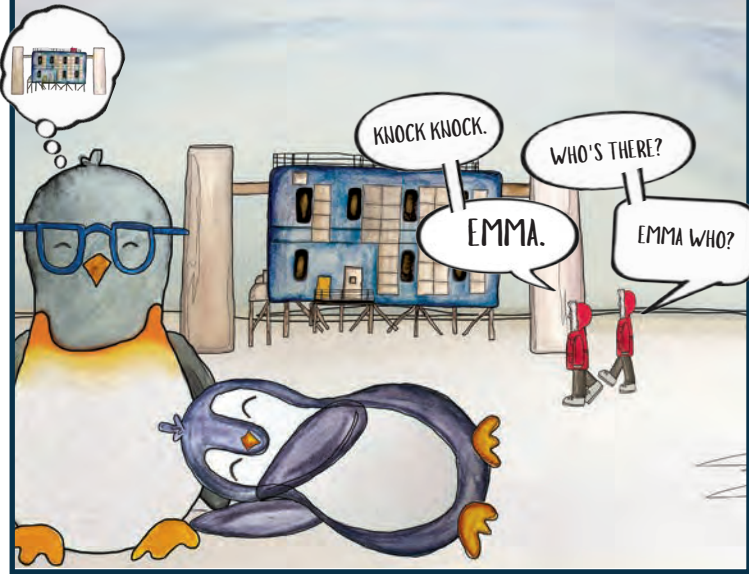


**ADVENTURE 2: A DETECTOR IN THE ICE**

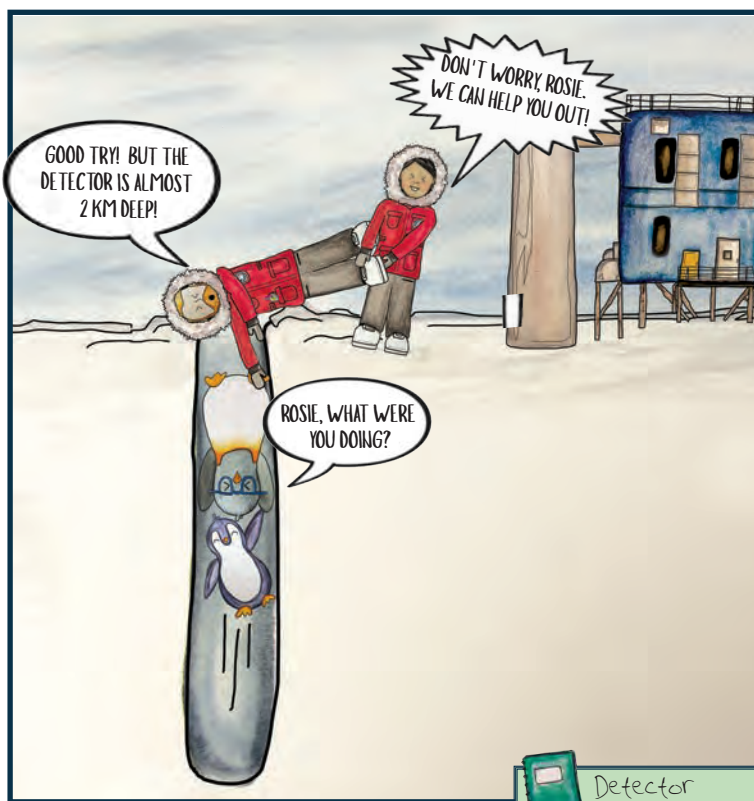
**MAY 2018**



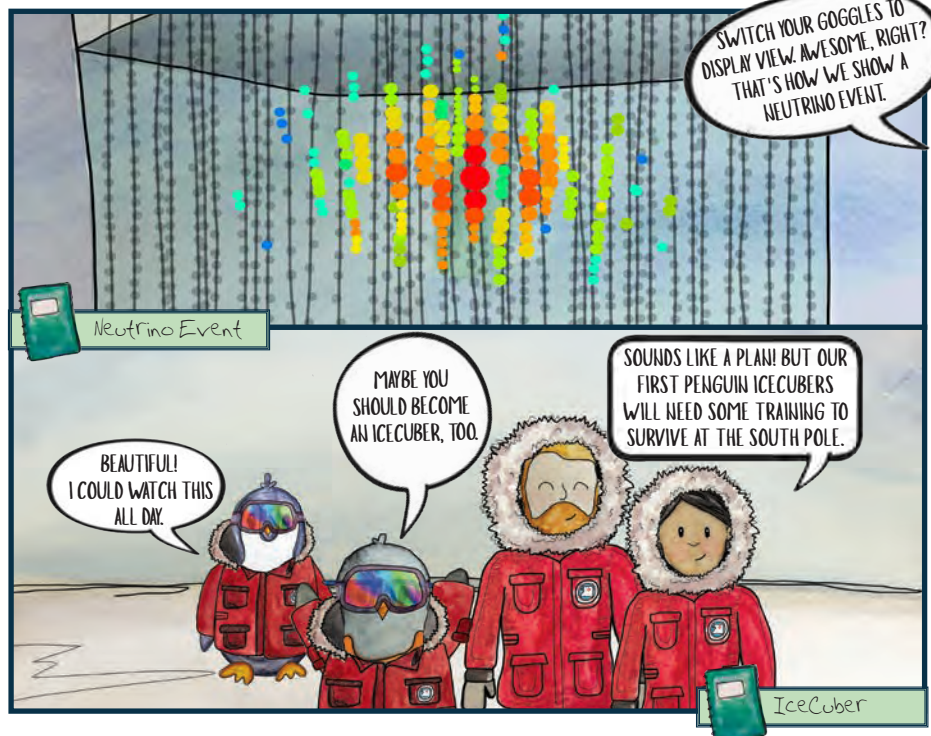
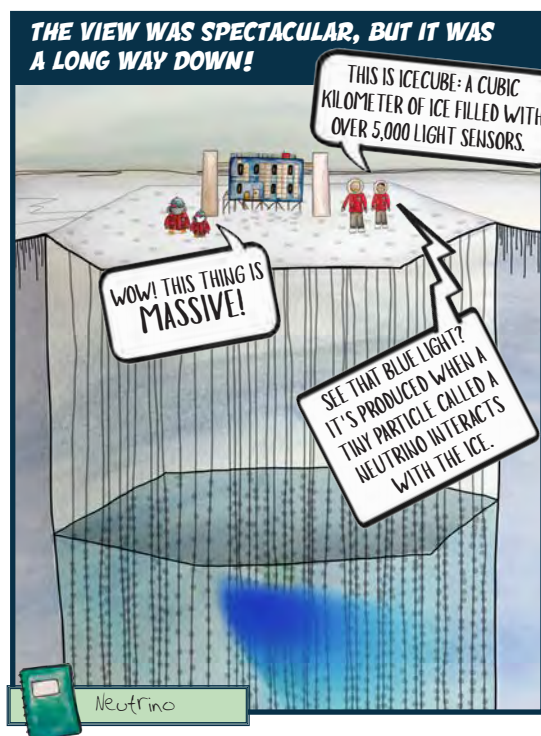
AFTER SO MUCH TRAVELING, ROSIE AND GIBBS FELL ASLEEP EXHAUSTED.







ROSIE AND GIBBS FELT TOTALLY COOL IN THEIR NEW WINTEROVER GEAR.





# Rosie's Discoveries

## Winterover

Winterovers are the few people who spend the long, dark winter at the South Pole. From February to October, which is wintertime in Antarctica, planes can't land at the Pole and the winterovers are totally isolated.

## IceCube Lab (ICL)

The ICL is the only IceCube structure visible, since the detector is buried in the ice. It hosts racks of computers that collect lots of data all the time.

## 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.

## Neutrino

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

## Neutrino Event

Scientists create colorful 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!