



# CAPTAIN CURIOSITY'S GUIDE TO THE UNIVERSE

## Topic: Penguins & Antarctica

**EVER WONDER WHERE ANTARCTICA IS?** Antarctica is a land mass at the bottom of the Earth; this is also where the South Pole is located.

**EVER WONDER WHAT ANIMALS LIVE IN THE ANTARCTIC?** There is only

one animal that can live on land during the winter in Antarctica: the penguin! A few other animals can survive the cold temperatures by living in the ocean nearby, including whales, seals, squid, and octopi. Penguins spend about half their time in the ocean and half on land.



**EVER WONDER IF PENGUINS LIVE AT THE NORTH POLE TOO?** Not all penguins live in Antarctica -- some live a little further

north -- but none live much farther north than the equator. This means that there are no penguins at the North Pole. Because there are no penguins near the North Pole, and no polar bears near the South Pole, you will never see them in nature together!



**EVER WONDER WHY SOME PENGUINS BALANCE THEIR EGGS ON THEIR FEET?** Some penguins, such as Emperor Penguins, have an interesting family arrangement. The mommy penguin lays an egg then heads to the ocean to feed for the winter. The daddy penguin stays behind on land to keep the egg warm and safe by balancing it on his feet.

**EVER WONDER HOW PENGUINS STAY WARM IN THE FREEZING COLD?** Penguins have outer feathers that are stiff and small and tightly packed together; they smear oil over them to keep them wind- and waterproof. Underneath these outer feathers are soft, warm feathers called "down." Penguins also have a thick layer of fat under their skin called "blubber." Male Emperor penguins also clump together in big groups and take turns going to the inside to stay warm and protected from the wind.

**EVER WONDER IF PENGUINS CAN FLY?** Penguins are one of the few birds that cannot fly. Unlike flying birds, penguins' bones are heavy and solid -- but these qualities give them more weight for swimming and diving in water. Their stiff wings aren't good for flying, but they make good paddles. And their thick, webbed feet aren't good for flying, but they are perfect for swimming and walking. Penguins can waddle very fast on land; they also like to jump and slide on their blubbery bellies!



## You Can Do It!

Make your own "blubber mitten" by putting vegetable shortening in between two resealable plastic baggies. (Turn one baggie inside out so that the bags zip up to hold in the shortening.) Put your hand inside the mitten and see how long you can hold onto something cold -- like an ice cube!