Name: _____ Date: _____

The Emperor Penguin Dads

Reading level 10 (6th grade) · 787 words

It is winter at the bottom of the world. The sun is gone, the sea is frozen, and the wind is howling across the ice. Emperor penguins are the only animals that choose this time to raise a family. And here, in the middle of the dark, one father penguin stands very still with an egg balanced on his feet. He will stand like this for about two months, and in all that time he will not eat.

It begins with a handoff. The mother lays one egg, and then she has almost nothing left. She has to get to the sea to eat. But an egg left on the ice will freeze in a minute or two, so she must pass it to the father, from her feet to his, without letting it touch the ground. It is hard to do. Some pairs fumble it. When it works, the father is holding the egg and the mother walks away across the ice, toward the sea.

The father slowly slides the egg onto the tops of his feet and folds a flap of warm skin and feathers over it, like a blanket. Now he cannot walk, only shuffle. Among penguins, this is only an emperor’s job. In every other kind of penguin, both parents take turns sitting on the egg. Here, the father does the whole winter on his own, with the egg tucked under his belly, and the mother far away.

Then the storms arrive. The blizzards on the ice can blow faster than a car drives on a highway. Emperors are built for the cold, with several layers of scale-like feathers, but even so, one father alone would lose his heat quickly. So the fathers crowd close together into a huddle, so tightly that they warm one another. Huddling can cut the heat that a penguin loses by as much as half.

Even a huddle has a cold edge, and the edge that faces the wind is the worst. So the fathers take turns. One by one, the penguins at the windy edge turn and shuffle, eggs on their feet, along the side of the huddle to the calm side. Then they join the crowd again and slowly work their way through its warm middle. The huddle is always in motion, like a slow parade, and over a long storm the whole crowd drifts downwind.

Scientists wanted to know how well this works, so they put tiny recorders on some of the fathers to see how warm the huddle was. Outside, the air was well below freezing. But inside the huddles the recorders showed that it was warm, sometimes almost as warm as a bird’s own body. The fathers spent more than a third of their time in the huddle, and every bird got an equal share of the warm places.

All winter the father lives on the fat that he stored before the cold came, and he barely moves, to save his strength. He eats nothing at all. Then one day, after about two months, the shell cracks. A chick hatches onto his feet, small and hungry. Sometimes the mother is not back

yet. The father has no fish. What can he feed it? He has something else, a milk he makes himself.

A special gland in the father's throat can make a thick, rich liquid called crop milk, and he feeds it to the chick, drop by drop. Only a few birds in the whole world can do this: pigeons, flamingos, and the male emperor penguin. His milk lasts only about three to seven days. It is just enough to keep the chick alive for a few days, until the mother comes home with real food.

Out on the ice, a mother is walking home. She has been at sea for about two months, and her stomach is full of fish and squid. Around her are hundreds of fathers, all dressed alike. So how does she find her own? By his voice. She listens for his call among all the others, and when she hears it she goes straight to him. Then she feeds the chick from her stomach.

The father does not always want to let go. He has kept this chick alive on his feet all winter, and he has not eaten in a very long time. But now it is his turn to go to the sea, where he will eat for three or four weeks before he comes back. When the chicks are about seven weeks old, they crowd together in groups, too, just as their fathers did. Could you pick one voice out of a crowd of hundreds, in a storm? Emperor penguin mothers do it every winter.

Questions

1. Why must the mother pass the egg to the father so quickly?

A. An egg on the ice freezes in a minute or two
B. The father is in a hurry
C. The mother is tired of the egg

2. What do the fathers do to stay warm in a blizzard?

A. They crowd together in a huddle
B. They dig a hole in the snow
C. They fly to a warmer place

3. In this story, what does "huddle" mean?

A. A tight crowd
B. A kind of food
C. A loud noise

4. Why do the penguins at the windy edge move to the calm side?

A. So the cold is shared by turns
B. To find fish
C. To get away from the chicks

5. What does the father feed the chick before the mother comes home?

A. Milk he makes in his throat

B. Fish from the sea

C. Snow

6. How does the mother find her mate among hundreds of fathers?

A. She knows his voice

B. She follows his footprints

C. She looks for his gold ring

Words to know

huddle: tight crowd

blizzard: snow storm

gland: body part

squid: sea animal

flap: fold of skin

Answer key: The Emperor Penguin Dads

1. A. An egg on the ice freezes in a minute or two
2. A. They crowd together in a huddle
3. A. A tight crowd
4. A. So the cold is shared by turns
5. A. Milk he makes in his throat
6. A. She knows his voice