

A Body of Geography

OBJECTIVES

Students will be able to demonstrate that all penguins live south of the equator and relate where various species of penguins live.

MATERIALS

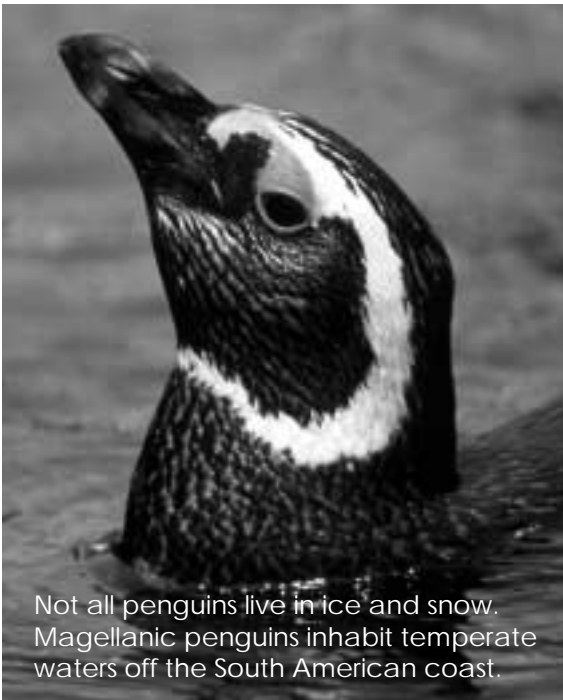
- globe and Southern Hemisphere map on page 11
- photocopied penguin illustrations (pages 6-8)
- tape

ACTION

1. Show students a globe and point out the equator, the north pole, and the south pole. Explain that the north polar region is called the Arctic and the south polar region is called the Antarctic. Point out the continent of Antarctica on the globe. Tape penguin illustrations to areas on the globe where each species is found.
2. Next, have students stand and pretend to be a globe. Use these directives: "Everybody put your

hands on your waist. Your waist is the equator. Where is the north pole?" (Children touch or point to the tops of their heads.) "Where is the south pole?" (Children touch or point to their toes.)

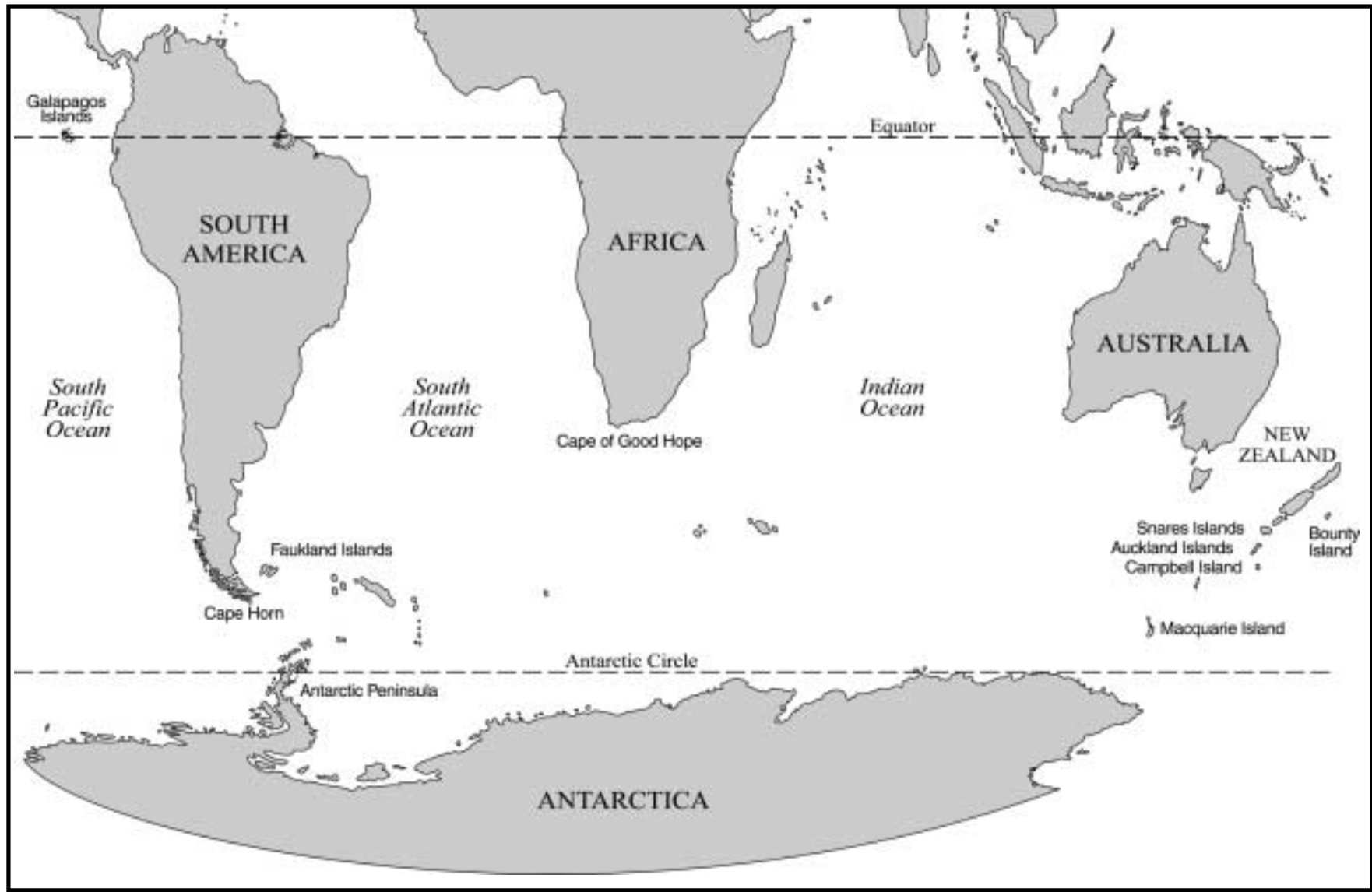
3. Ask students to tap themselves where various penguin species live. See page 11 for penguin species distribution. Here are a few ideas:
Galápagos belly button
Humboldt right thigh
African left thigh
Magellanic . . . just above right knee
yellow-eyed . . right knee
royal left knee
rockhopper . . midcalf/shin
gentoo left ankle
king right ankle
Adélie right foot
emperor left foot
4. Choose a student volunteer and have classmates tape pictures of penguins on the volunteer.



DEEPER DEPTHS

Research the history and exploration of areas where penguins live.

Southern Hemisphere



A Peek at Penguins

There are 17 species of penguins. Use these cards to help your students identify each penguin species. Copy and cut apart the cards. Distribute a set to each student or group. Have them find out —

- Which is the tallest penguin?
- Which is the heaviest penguin?
- Which is the most numerous penguin?
- Which is the most *endangered* penguin?

NOTE: *Distribution* indicates breeding distribution. *Population* may be expressed as number of individuals or number of breeding pairs, which is estimated by counting penguin nests during the breeding season.

emperor penguin

Aptenodytes forsteri

size: 112 cm (44 in.), 27–41 kg (60–90 lb.)

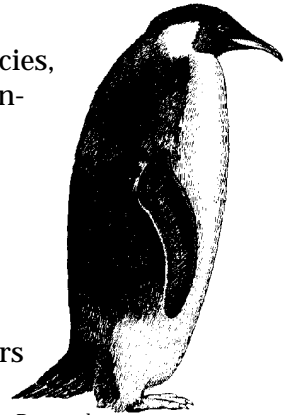
distribution: Antarctica

ID: Largest of the 17 species, emperors have lemon-yellow ear patches that open out onto the chest.

prey: fishes, squids

predators: leopard seals, killer whales, skuas

population: 218,000 breeding pairs



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king penguin

Aptenodytes patagonicus

size: 94 cm (37 in.), 13.5–16 kg (30–35 lb.)

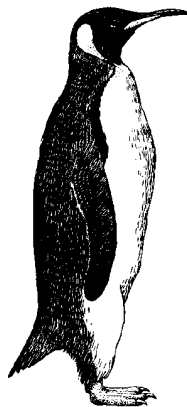
distribution: subantarctic islands

ID: A king penguin's vivid orange, teardrop-shaped ear patches are closed off from the white chest.

prey: squids, fishes

predators: leopard seals, skuas, giant petrels, gulls, sheathbills

population: 1.6 million breeding pairs



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Adélie penguin

Pygoscelis adeliae

size: 46–61 cm (18–24 in.), 3.5–4.5 kg (8–10 lb.)

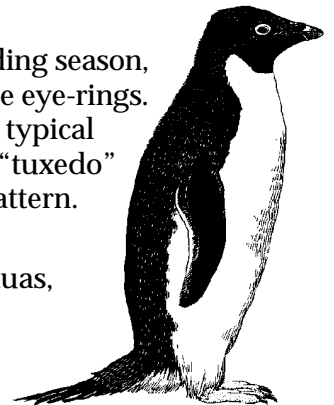
distribution: Antarctica

ID: During the breeding season, adults have white eye-rings. Adélies have the typical black and white "tuxedo" penguin color pattern.

prey: mainly krill

predators: leopard seals, skuas, sheathbills

population: 2.5 million breeding pairs



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gentoo penguin

Pygoscelis papua

size: 61–76 cm (24–30 in.), 5.5–6.5 kg (12–14 lb.)

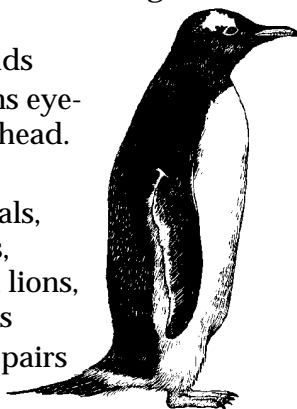
distribution: antarctic and subantarctic islands

ID: A white band runs eye-to-eye across the head.

prey: krill, squid

predators: skuas, leopard seals, antarctic fur seals, New Zealand sea lions, Southern sea lions

population: 317,000 breeding pairs



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chinstrap penguin

Pygoscelis antarctica

size: 46–61 cm (18–24 in.), 4 kg (9 lb.)

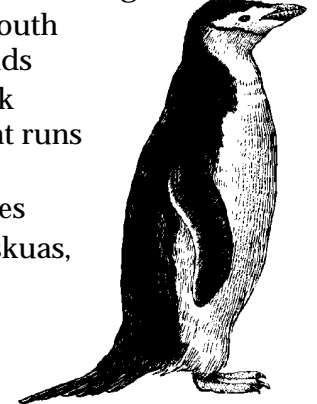
distribution: antarctic and South American islands

ID: Look for a black "chinstrap" that runs under the chin.

prey: krill, small fishes

predators: leopard seals, skuas, sheathbills

population: 7.5 million breeding pairs



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rockhopper penguin*Eudyptes chrysocome*

size: 41–46 cm (16–18 in.), 2.5 kg (5–6 lb.)

distribution: subantarctic islands

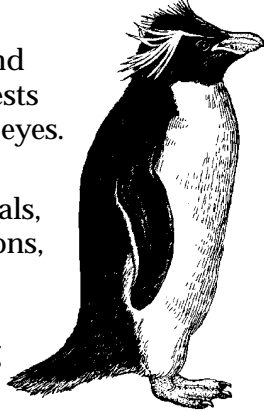
ID: Look for red eyes and drooping yellow crests that start behind the eyes.

prey: fishes, squids, krill

predators: New Zealand fur seals, New Zealand sea lions, Southern sea lions, skuas, gulls

population: 1.8 million breeding pairs—*vulnerable*

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**macaroni penguin***Eudyptes chrysolophus*

size: 51–61 cm (20–24 in.), 4.5 kg (10 lb.)

distribution: subantarctic islands in the Atlantic and Indian oceans

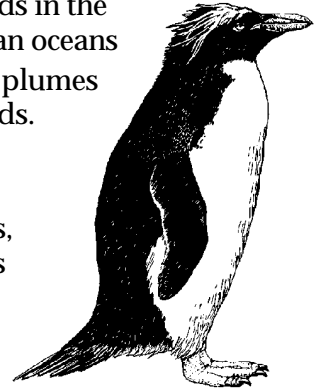
ID: A crest of orange plumes extends backwards.

prey: squids and krill

predators: leopard seals, antarctic fur seals, skuas, sheathbills

population: about 9 million breeding pairs—*near threatened*

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**royal penguin***Eudyptes schlegeli*

size: 66–76 cm (26–30 in.), 5.5 kg (12 lb.)

distribution: Macquarie Island

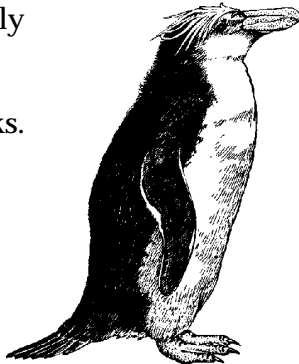
ID: Royals are the only crested penguins that have white throats and cheeks.

prey: krill, squids

predators: New Zealand fur seals, skuas, giant petrels

population: 850,000 breeding pairs—*vulnerable*

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**Fiordland crested penguin***Eudyptes pachyrhynchus*

size: 61 cm (24 in.), 2.5–3 kg (6–7 lb.)

distribution: subantarctic islands and New Zealand

ID: Yellow crests above the eyes and a stout bill.

prey: small fishes, crustaceans, cuttlefish

predators: New Zealand fur seals, stoats (weasel relatives)

population: 2,500 to 3,000 breeding pairs—*vulnerable*

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**erect-crested penguin***Eudyptes sclateri*

size: 64 cm (25 in.), 2.5–3.5 kg (6–8 lb.)

distribution: Australia; New Zealand; Bounty, Campbell, and Auckland Islands

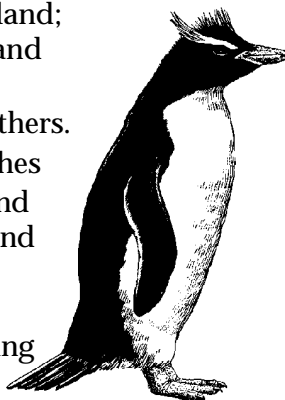
ID: An erect crest of feathers.

prey: probably squids, fishes

predators: possibly New Zealand sea lions, New Zealand fur seals, Australian sea lions

population: 50,000–60,000 breeding pairs—*endangered*

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**Snares Island penguin***Eudyptes robustus*

size: 64 cm (25 in.), 2.5–3 kg (6–7 lb.)

distribution: south of New Zealand in the Snares Islands

ID: Darker and larger than the similar Fiordland crested penguins, with a heavier bill.

prey: squids, fishes

predators: New Zealand sea lions

population: 23,000 breeding pairs—*vulnerable*

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yellow-eyed penguin

Megadyptes antipodes

size: 76 cm (30 in.), 6 kg (3 lb.)

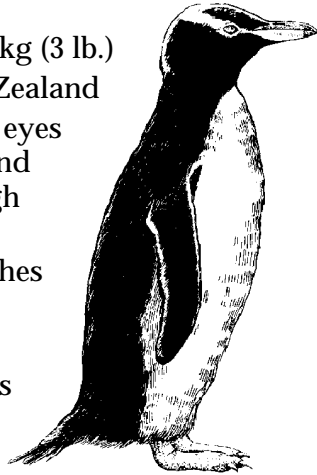
distribution: southeast New Zealand

ID: Look for yellow eyes and a yellow band that runs through each eye.

prey: squids, small fishes

predators: New Zealand sea lions

population: 6,000 individuals
—*vulnerable*



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fairy penguin

Eudyptula minor

size: 41 cm (16 in.), about 1 kg (2 lb.)

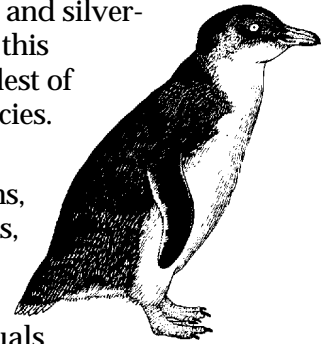
distribution: southern Australia and New Zealand

ID: Slate blue feathers and silver-gray eyes identify this penguin, the smallest of all 17 penguin species.

prey: small fishes

predators: Australian sea lions, fur seals, dogs, cats, stoats, ferrets

population: about 700,000 to 1,200,000 individuals



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Magellanic penguin

Spheniscus magellanicus

size: 61–71 cm (24–28 in.), 5 kg (11 lb.)

distribution: Falkland Islands and Chile and Argentina coasts

ID: Look for two distinct brown chest stripes.

prey: small fishes, cuttlefish

predators: Southern sea lions, leopard seals, Patagonian foxes

population: 1,300,000 pairs
—*near threatened*



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Humboldt penguin

Spheniscus humboldti

size: 56–66 cm (22–26 in.), 4 kg (9 lb.)

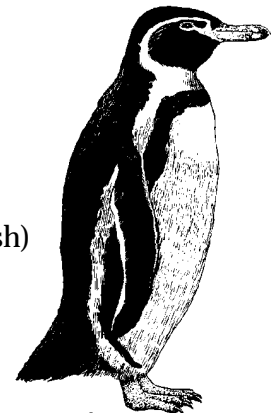
distribution: islands off western South America, and along the coasts of Peru and Chile

ID: Look for just one chest stripe.

prey: anchovetta (small fish)

predators: possibly sharks and Southern sea lions

population: 33,000 individuals
—*endangered*



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African penguin (formerly black-footed penguin)

Spheniscus demersus

size: 61–71 cm (24–28 in.), 3 kg (7 lb.)

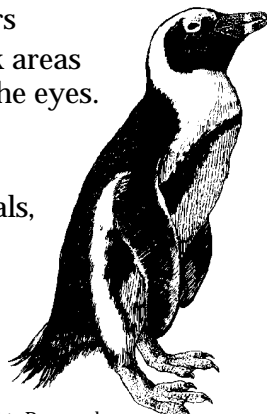
distribution: South African waters

ID: Look for fleshy pink areas around and above the eyes.

prey: squids, crustaceans, fishes

predators: South African fur seals, Southern sea lions, octopus, sharks, sacred ibis, gulls

population: 180,500 individuals
—*threatened*



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Galápagos penguin

Spheniscus mendiculus

size: 53 cm (21 in.), about 2.5 kg (5–6 lb.)

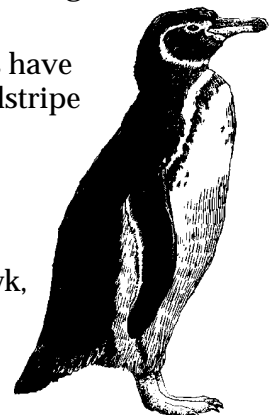
distribution: Galápagos Islands

ID: Galápagos penguins have a narrow white headstripe and almost totally black flippers.

prey: small fishes

predators: sharks, eared barn owls, Galápagos hawk, feral cats, dogs

population: 1,500 to 4,000 pairs
—*endangered*



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