

Objective

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

Materials

- copy of Southern Hemisphere mapPenguin Flash Cards
- tape

Action

- 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.
- 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.)
- Ask students to tap themselves where various penguin species live. See Penguin Flash Cards for penguin species distribution. Here are a few ideas:

rockhopper . . midcalf/shin Humboldt . . . right thigh gentoo left ankle African left thigh king right ankle Magellanic . . . just above right knee Adélie right foot yellow-eyed . . right knee

emperor left foot royal left knee

Galápagos belly button

4. Choose a student volunteer and have classmates tape pictures of penguins on the voluteer.

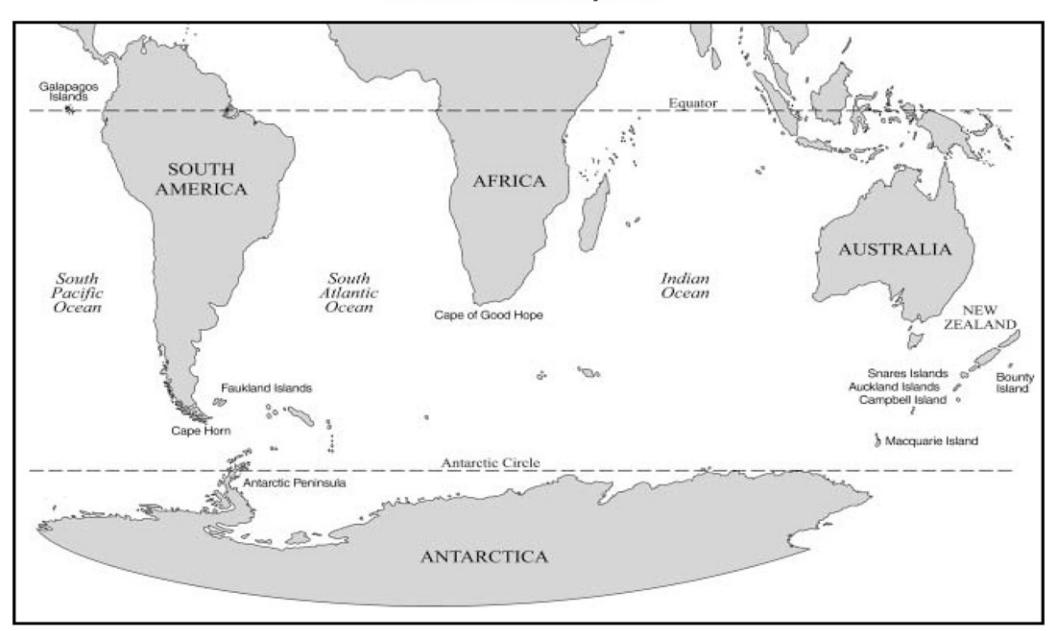
Deeper Depths

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 lemonyellow 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

 Look for red eyes and drooping yellow crests

that start behind the eves.

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.

extends backwar y: squids and krill

prey: squids and kril 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

D: An erect crest of feathers.
prey: probably squids, fishes
predators: possibly New Zealand

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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