

Penguin Exploration



Objective

Students will be able to identify on a globe or map the location of the Southern Hemisphere, Antarctica, the Southern Ocean, and several areas inhabited by penguins. They will describe two environments where penguins live and discuss the interaction of humans and penguins in two habitats.

Materials

- map pins, flags, or stickers
- butcher paper
- opaque projector or photocopier
per student group:
- copy of Southern Hemisphere map
- Penguin Flash Cards

Action

1. Divide your class into cooperative learning groups. Each group uses an opaque projector to magnify and transfer continents from the penguin species distribution onto butcher paper. (Or do this ahead of time for each group.)
2. Have students label maps. Include the equator, latitude and longitude peninsulas inhabited by penguins, and other geographical landmarks.
3. Create a map legend: assign a different color flag, pin, or sticker to each penguin species.
4. Use the penguin flash cards to learn where each species lives. Have students place pins on the map to show areas inhabited by each species.

Deeper Depths

Assign each student group an island or continent where penguins live. Allow the groups time to research their region. They should include habitat, animal inhabitants, human inhabitants and cultures, and food sources for animals and humans.

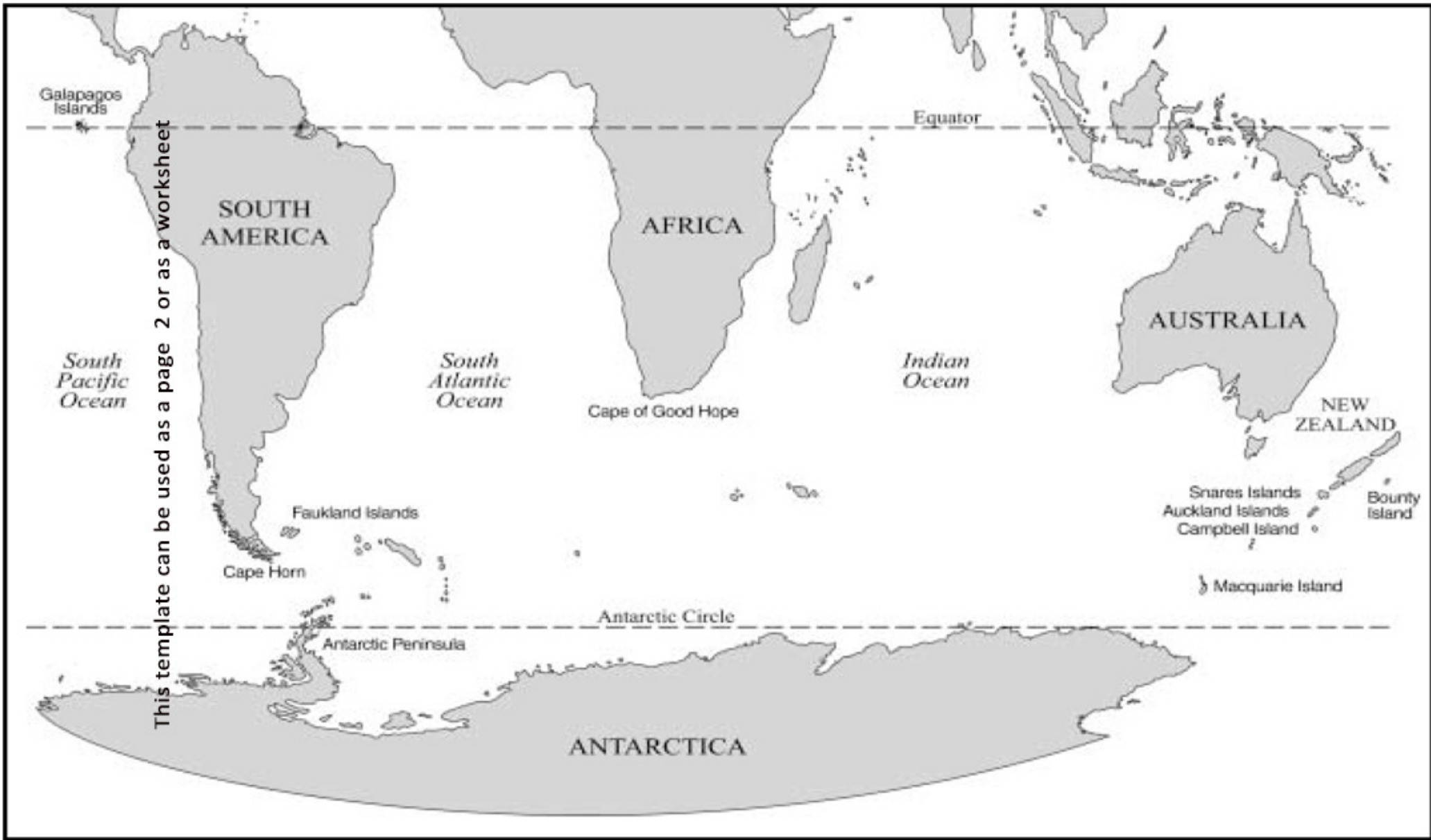
Have each group estimate the distance from their assigned land mass to others nearby.

Give each group a chance to share their information with the class.

Penguin Exploration



Southern Hemisphere



Penguin Exploration



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.)

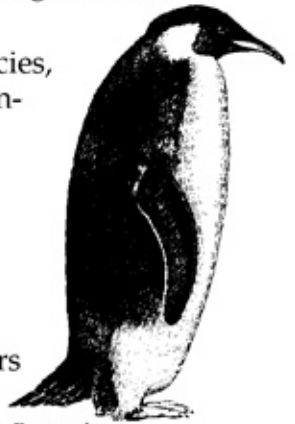
distribution: Antarctica

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.)

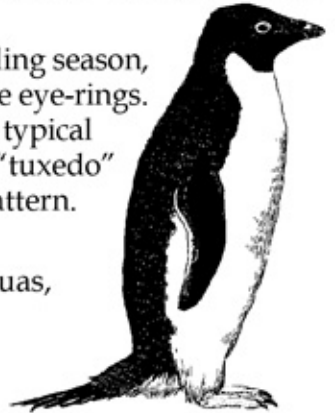
distribution: Antarctica

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.)

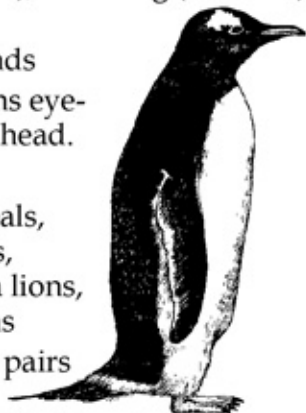
distribution: antarctic and subantarctic islands

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.)

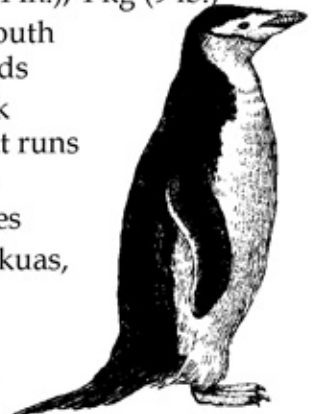
distribution: antarctic and South American islands

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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Penguin Exploration



rockhopper penguin

Eudyptes chrysolophus

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

distribution: subantarctic islands

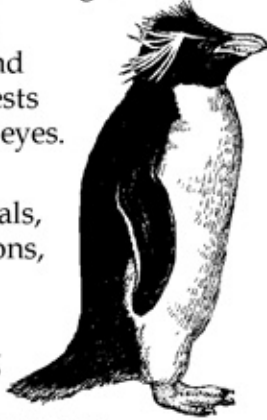
ID: Look for red eyes and drooping yellow crests that start behind the eyes.

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

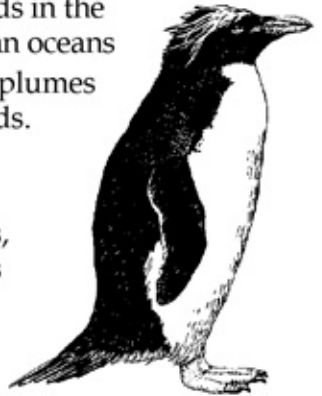
ID: A crest of orange plumes extends backwards.

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

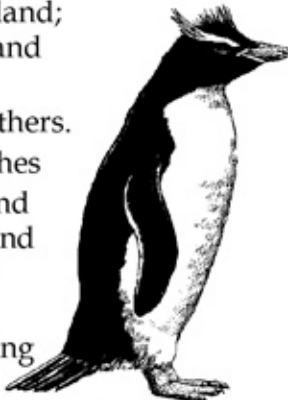
ID: An erect crest of feathers.

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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Penguin Exploration



yellow-eyed penguin

Megadyptes antipodes

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

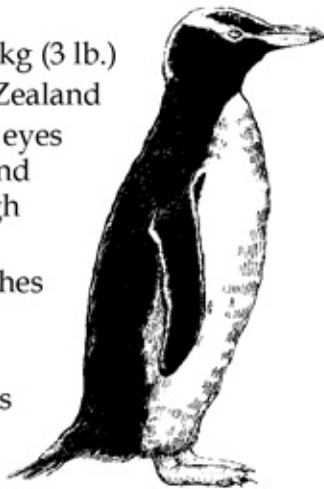
distribution: southeast New Zealand

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.)

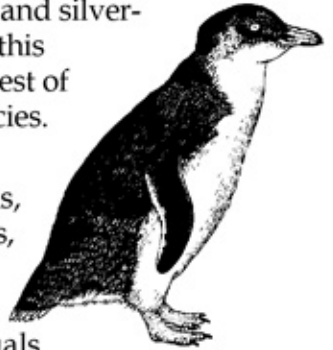
distribution: southern Australia and New Zealand

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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