

Black-Footed Penguin

Objective:

Students will identify the parts of a penguin and describe their habitat.

Performance Objectives:

Arizona State Science Standards

Strand 1: Concept 1
Strand 4: Concept: 1, 2 and 4
NGSS K – LS 1. C

Background Information:

The black-footed **penguin** is one of several types of birds that do not fly. They are birds because they have similar **adaptations** to other birds such as feathers, laying eggs, and having a beak. However, penguins have heavier bones than other birds preventing them from flying. These small to medium size penguins stand 27 inches tall, and between 5-8 pounds. They have firm wings that are used as flippers to help the penguins swim. They are well adapted to swimming reaching a top speed of 12 mph in the water. They seem somewhat “wobbly” on land. Their side-to-side pace appears awkward as they maneuver on dry ground. These penguins make an odd sound called a bray which sounds like a donkey.

Black-footed penguins are black and white with a horseshoe mark on their chest. The front area of the black-footed penguin has speckles of black on the white areas, with each penguin having its own special pattern. The speckles help the penguins find their family members among the group. The black-footed penguin also has a small area of pink skin above the eyes and the beak. This patch of skin is called a heat window and allows blood to flow through to cool the bird off. The

Grades: Pre K - K

Key Vocabulary:

- Penguin
- Hatched
- Beak
- Adaptations

Related Literature:

If I Were A Penguin
Wendall & Florence
Minor
Penguin Pete & Pat
Marcus Pfister
Little Penguin's Tale
Audrey Wood
The Penguins Are Coming
R. Penny

bare skin here just like on their black feet helps heat to escapes their bodies when they get to warm. Black-footed penguins have a sturdy, black beak that they use to catch fish.

Black-footed penguins generally lay 2 eggs in a nest made by both parents. Baby penguins are hatched with a fluffy layer of gray feathers. The feathers help keep the baby protected and warm. As the baby grows up, the feathers turn black around the face. It take almost 2 to 3 years for them to become an adult.

The black-footed penguin's natural habitat is in ocean and rocky coastline off the coast of South Africa and nowhere else in the world. While the land temperatures around the area are warm, the water currents are much colder. Black-footed penguins have three layers of feathers that overlap to keep them warm and waterproof.

Black-footed penguins catch food each day to equal 20% of their total body weight. (Ex A 30-lbs. child would need to eat 6 lbs. of food a day) Penguins enjoy feasting on squid, anchovies, sardines, and other small fish. Penguins have been on Earth for thousands of years, and we want to protect penguins by caring for their natural habitat to be sure they survive. It is important that the penguins have plenty of fish, clean ocean water, and space on land to raise their families.

Watch the black-footed penguins 'waddle' on land and give it a try!

Sources: Wayne/Encyclopedia of Life; Denver Zoo; Penguin World; Encyclopedia of Earth.
Photos: OdySea Aquarium; Public domain.

Procedures and Pre-Activities:

1. State the objective.
2. Read related literature and discuss what penguins are, where they live and their unique body.
3. Discuss the facts about penguins. Birds that swim and do not fly, live in cold waters, eat fish, lay eggs, live in colonies, appear to be wearing a tuxedo, etc. Show the attached picture of African Black-Footed Penguins.
4. Ask open-ended questions about penguins.
5. Show pictures of penguins and discuss their unique appearance.
6. Show and read the African Black-Footed Penguin poem.

Activity: Give handout of penguin and have students label the body. Discuss and check for understanding.

Students can name their penguin.



Activity: “Can you spot the African Penguin?” Check for understanding of penguin species differences.

Snack:

Have a tasty snack like a penguin.

Gummy fish represent the penguin’s daily diet of fish. Enjoy!

Activity:

Learn to ‘Waddle’ like a penguin.

Begin by lining students up facing the teacher. The teacher demonstrates the side-to-side waddle of a penguin by placing both heels together with toes pointed out to the side. Keeping heels together, waddle forward. As you waddle forward, be sure to keep your arms to your side like wing flaps.

Have students practice waddling like a penguin.

As students waddle, sing the song, I’m a Little Penguin.

I’m A Little Penguin

(Sing to the tune of I’m a Little Teapot)

I’m a little penguin

Black and white.

Stout and fluffy

What a funny sight!

I cannot fly

But I like to swim.

So I’ll waddle to the water

And jump right in!

Optional Activity: Students use crayons to draw and color their own penguin picture.

Students will need assistance with the penguin craft, ‘I’m so cute, and I wear a suit.’

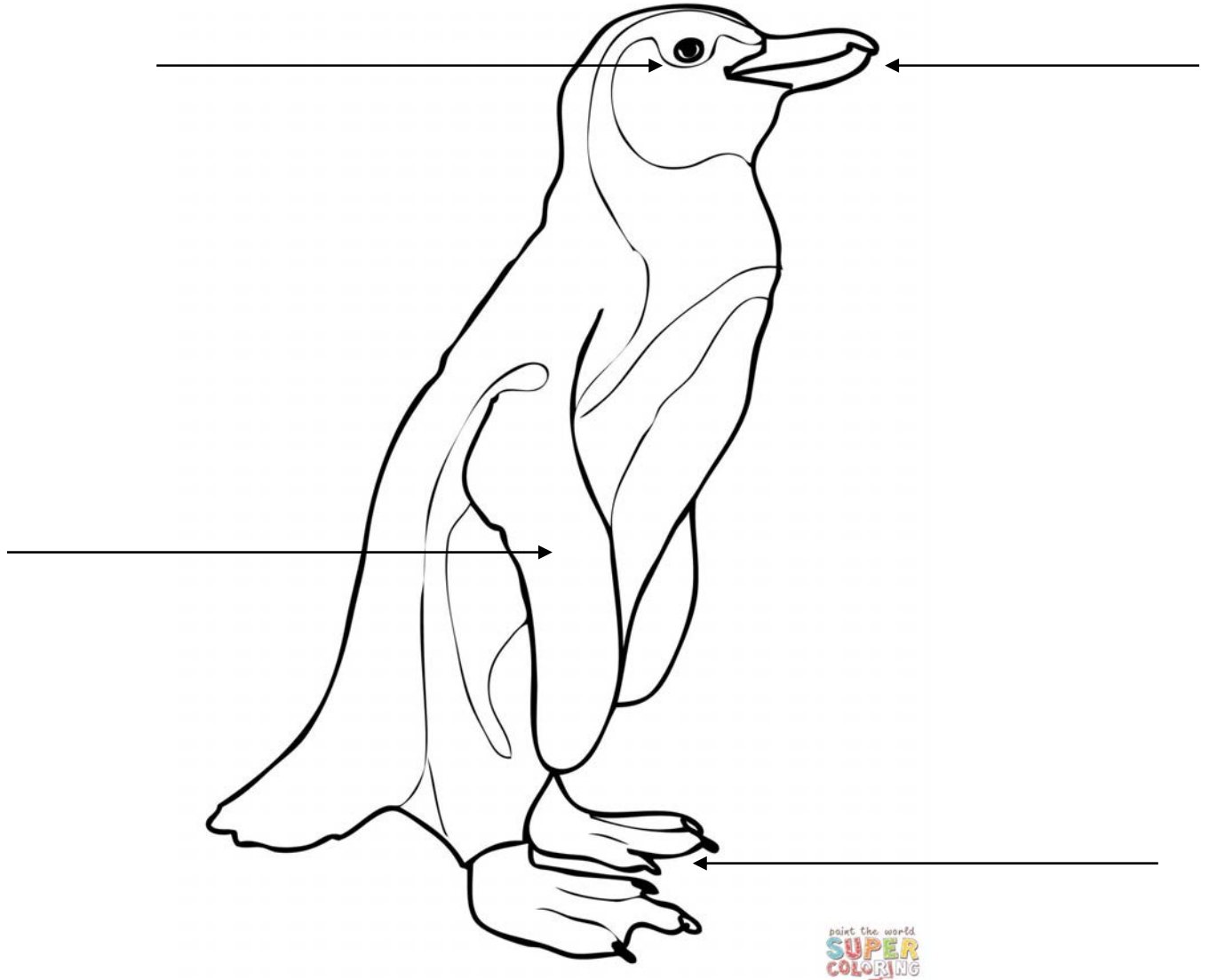
Reflection and Assessment:

After visiting the OdySea Aquarium, discuss the experience and the exhibits, especially the black-footed penguins. Ask students what they observed about the penguins.

Assessment: Participation based.



Label the African Penguin



Word Bank:

Eye

Flipper

Beak

Feet

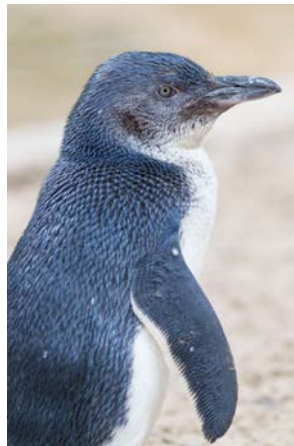
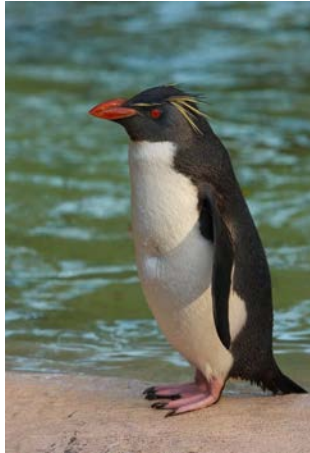
Can you spot the African Penguin?

This is Tux, the African Penguin. African Penguins grow to be 2 feet tall and are known for black spots on their chest. Every African Penguin has different spots on their chest. They also have a black stripe across their neck and white on the sides of their head.



Can you spot the African Penguin?

Help find Tux the African Penguin among his penguin cousins.



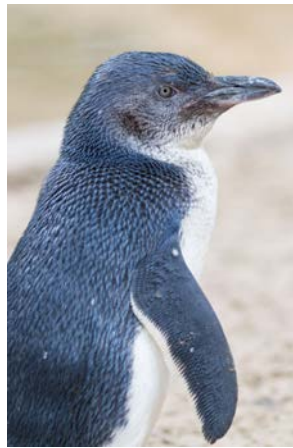
Can you spot the African Penguin? KEY

Help find Tux the African Penguin among his penguin cousins.

Macaroni Penguin



Little Blue Penguin



Galapagos Penguin



Chinstrap Penguin



Emperor Penguin



I'm so cute, and I wear a suit!



Materials: Empty toilet paper rolls, black, white, and yellow construction paper, glue or tape, black marker or googly eyes (optional).

Directions: Create a pattern for the penguin's feet, bill, eyes, stomach, and flippers. Each student cuts out the parts of the penguin. Wrap the paper roll with black construction paper and glue or tape at seams. Next, glue or tape flippers, white stomach, yellow bill, and feet on the penguin. Glue the white part of the eyes on last and use black marker for the center of the eyes. Googly eyes can be used instead of the paper ones.

African Black-Footed Penguin



Swimming, swimming under the sea
Don't you wish you could swim like me?

I flap my wings, but I do not fly
I swim with ease, but not in the sky.

I am a penguin, yes that's me
I swim, swim, swim under the sea.