



These pages are taken from the G4 "Plant and Animal Traits" journal.



## Our world is full of living organisms

Our world is full of amazing organisms! An **organism** is a living thing. You are a living organism. All plants, animals, and even smaller things such as bacteria are living organisms! Anything that is alive is a living organism. All plants and animals live in habitats. A **habitat** is the natural home of a living organism.



The world is full of plants and animals that are very different from each other, but they are all called living organisms.

Hamsters can store lots of food in their cheeks.

My favorite animal is a hamster!



Sweetie, you are hamster!



## Traits help animals survive

In order to survive in a specific habitat, plants and animals must have body features and parts that make them well suited to living in that habitat. A **trait** is a physical characteristic, or body part, that gives an organism an ability. Together, all of an organism's traits help it survive.

## All organisms have external parts

Animals have internal and external body parts that are examples of traits that work together to help an organism survive, grow and reproduce. **External** means outside. Examples of the external parts of a penguin are the parts that we can see such as wings, feathers and claws.



*These penguins look happy and healthy in their habitat.*

Describe the external parts of a penguin's body.

The wings: \_\_\_\_\_

The feet: \_\_\_\_\_

The feathers: \_\_\_\_\_

The beak: \_\_\_\_\_

# What are a penguin's external parts good for?

Penguins are well adapted to swimming and catching fish. Every external part of a penguin has a special purpose. These parts work together to help it survive. Since penguins live in icy, cold habitats, penguins must be able to stay warm and dry, walk on icy surfaces, and swim well underwater to catch fish and escape predators.

## A penguin's feathers

Penguins have a lot of feathers packed closely together. Additionally, oil producing glands coat feathers to help them repel water. Feathers keep a penguin warm and dry even in wet or frozen conditions.

## A penguin's color

Black feathers help keep a penguin warm in sunlight. Its white belly feathers act as camouflage so predators looking up can't see the penguin as easily.

## A penguin's feet

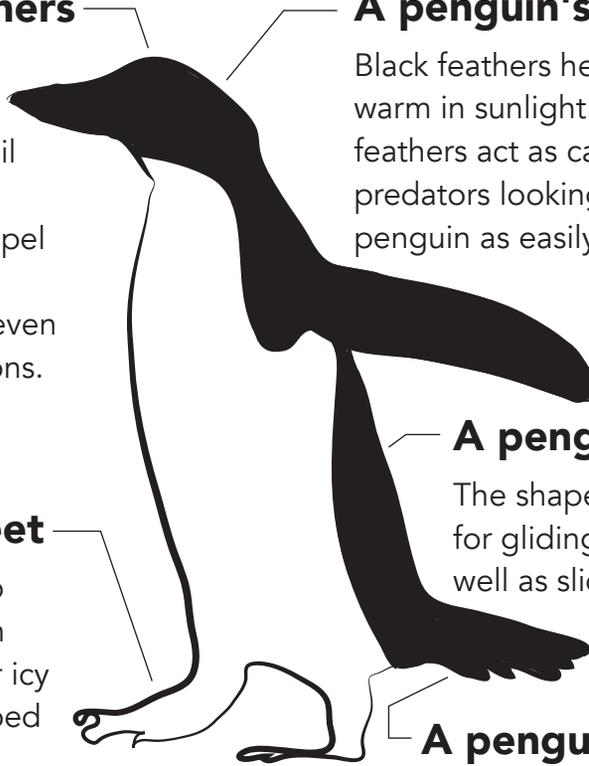
Penguins have sharp claws that help them grip onto slippery or icy surfaces. Their webbed feet help them swim well.

## A penguin's body

The shape of a penguin is good for gliding through the water as well as sliding over ice!

## A penguin's tail

The tail of a penguin is made up of strong, stiff tail feathers that are used like a rudder to steer through the water while swimming.

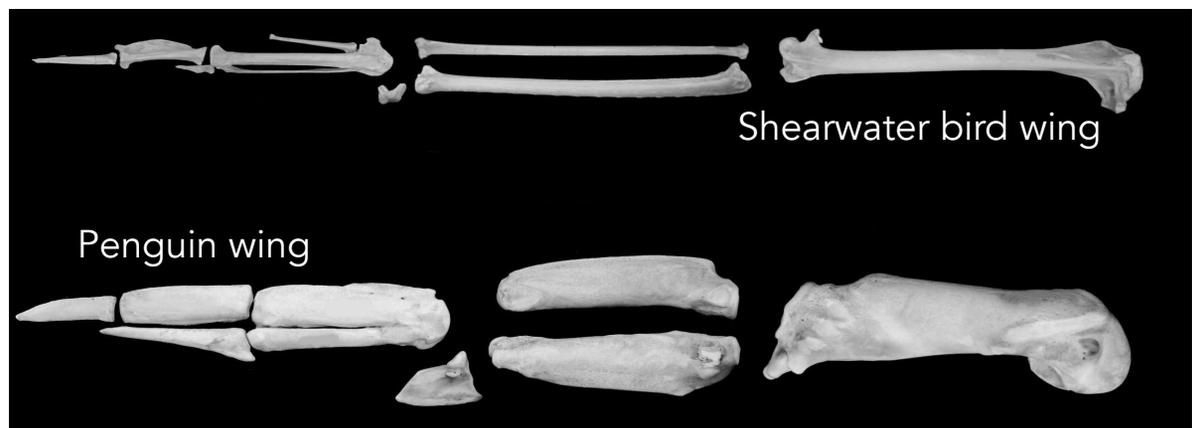


## What are a penguin's internal parts good for?

Penguins also have internal body parts. **Internal** means inside. The internal parts of a penguin are the parts that we cannot see such as the heart, lungs, brain and bones. The internal parts of a penguin are very important for helping a penguin live and grow. The internal body parts of a penguin, such as its bone structure, help a penguin specialize at living near and swimming in the ocean.



*A penguin's wings help it swim underwater. The shearwater bird flies through the air.*



*This diagram shows the wing bones of a penguin and a shearwater bird side-by-side.*

Describe the similarities and differences you see in the wing bones of these species.

## Penguin Wings Have Strong Bones

The emperor penguin and the shearwater bird are closely related, however, each species has adapted to surviving in its own environment. The light bone structure of the shearwater bird is a great adaptation for flying. The heavy bone structure of the penguin wing allows it to be strong for swimming underwater.



*With outstretched wings, the penguin swims underwater.*



What are a penguin's wings good for? Why do you think so?

## What special parts do these animals have?

Identify the external parts of these organisms and state how you think the body parts could help the animal survive and thrive.



**Bald Eagle**



**Impala**



**Flying Fish**



**Mole**



**Viper**



**Hermit Crab**



**Spider**



**Hedgehog**