

No. 59250

What's Inside: Animals



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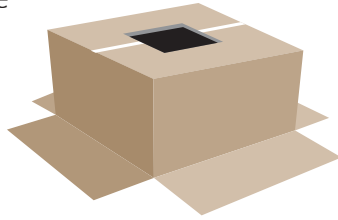
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Learn about animals from the inside out! Our innovative plastic cards let students see a picture of an animal and then, when placed on a light table, see the skeleton underneath the skin! It's a great way to introduce and compare animal anatomy.

The photographic side of the plastic cards has a scratch-proof coating. Clean the cards with soap and water. Do not use an abrasive cleaning agent.

What's Inside Animal Cards were designed to work on classroom light tables. If one is not available, you can use a flashlight. The brighter the flashlight, the better the image will appear. Even if you have a classroom light table, a flashlight provides an interesting experience when viewing the images. Tip: To significantly improve the contrast, turn off the classroom lights, or cut a hole in the bottom of a box; place the box over top of the card with the hole facing up; look through the hole to see the animal's skeleton.



Put on your scientific lab coat and explore animals. A scientist who studies animals is called a zoologist. Our animal cards focus on vertebrates or animals with back bones. There are five major groups: mammals, amphibians, reptiles, fish and birds. We've included at least one example from each of these groups.

Encourage students to learn the characteristics of these five groups so that they can identify the cards that relate to each one of them.

Mammals: All animals that feed their babies with milk produced in their mother's body. Mammals' bodies are covered, more or less, in hair. Scientists identify mammals as the highest form of animal. They are found in many different environments. Some even spend their whole lives in water.

Amphibians: The most important characteristic that identifies amphibians is that the young live in water, but the adults can live on land. Their skin is smooth, without scales, feathers or fur and must remain moist. They do not have claws.

Reptiles: They have scales covering their body, but not fur or feathers. They young are normally hatched from eggs. If they have feet, the feet usually have claws.

Birds: They have feathers covering their skin. Their bones are usually hollow. The young are hatched from eggs. Their forelimb are wings.

Fish: Their bodies are covered in scales. They live underwater and their body temperature is the same as the water in which they live. Young are hatched from eggs.

Now let's look at each animal:

Mammals

Human: We have two cards featuring humans; one shows the skeleton straight on and the other show him from the side. Use these two cards as reference when comparing the skeletal systems of the other animals. We've included a chart with the names and locations of major bones in the human body. These names relate to the same bones in other animals.



Here are descriptions of the other Mammals:

Mandrill

Description: The mandrill is a primate with olive-colored fur. It has a beautifully colored face.

Habitat: It lives in the tropical rainforests in a small area of Africa near southern Nigeria.

Behavior: They live in large groups made up of females, young and one dominant male. It lives on the ground where it forages for plants, insects and small animals to eat. It's only natural predator is the leopard.

Status: It is currently designated as vulnerable.



Horse

Description: The horse has lived with mankind for over 6000 years. It evolved from a small, multi-toed animal to the large, single-toed (hoof) animal that we know today. People use horses in sports, during recreation, at work and even as part of learning and rehabilitation exercises.

Skeletal System: A horse differs from a human in that it does not have a collar bone. Strong tendons hold the front legs and shoulder blade to the spinal column. The horse's leg is also different. What appears to be the knee is actually made up of bones that correspond most closely to our wrist. A horse has no muscle below its knee, but rather tendons, skin, bone, ligaments and cartilage.

Behavior: Horses' personalities range from skittish race horses that are jumpy, to work horse that plough fields or pull wagons.

Status: Domesticated.



Camel

Description: A full grown camel can reach 2.15 m (7') tall at the hump. There are two types of camel, the one-humped Dromedary, and the two humped Bactrian.



Habitat: There are about 14 million Dromedary camels living in Africa. There are about 1.5 million Bactrian camels living near the Gobi Desert in China.



Behavior: Camels do not store water in their hump. Instead the hump is filled with fatty tissue. They can drink large quantities of water and their red blood cells are oval rather than round which helps them flow through blood vessels when dehydrated.

Status: Not threatened.

Giraffe

Description: The giraffe is the tallest land mammal reaching up to 5.5 m (18') and weighing up to 2000 kg (4400 lb)

Habitat: Giraffes live in the grasslands and savannas of central and southern Africa.



Skeletal System: The giraffe has a long neck, but it still only has seven vertebrae just like most other mammals; the vertebrae are elongated to make the neck longer. The spine has long spikes near the neck/shoulders where the heavy muscles needed to support the neck anchor onto the spine.

Behavior: Females and young giraffes live in small herds. Adolescent males live in small packs. Older males live alone. Giraffes often live comfortably with other herbivores (plant eating animals) where their excellent sight can spot dangerous predators.

Status: Not endangered.

Black Rhinoceros

Description: A large adult can be 3.6 m (12') long and 1.7 m (63") tall at the shoulder. They have two horns on their snouts made of keratin. The horns are used for digging roots or defending themselves.



Habitat: The rhinoceros lives in the tropical and subtropical grasslands, savannas and shrub lands of eastern, central and southern Africa.

Behavior: Rhinos live alone and only come together to mate. They roam through their territory eating and drinking water. They return often to specific places where they rest. These places are called "houses." They have poor eyesight and will charge something if they feel threatened, but generally they are not aggressive.

Status: Critically endangered. Although protected by law, they are still hunted for their horn which is ground into a powder and used in traditional medicines.

Elephant

Description: There are three types of elephants in the world including the Indian Elephant, the African Bush Elephant and this one, the African Forest Elephant. They are the largest land mammal



standing up to 4 m (13') tall and weighing 3500 kg (7,700 lb). An elephant can live up to 70 years. The most notable characteristic is the trunk or proboscis. It is a fusion of the upper lip and nose and it's the elephant's most important appendage. Elephants use the trunk to forage for food, drink water and bathe.

Skeleton System: The tusks are really extended teeth; the second upper incisors. Elephants use their tusks to dig for water and roots, strip bark off trees and to defend themselves.

Habitat: Tropical and subtropical Africa. They live in grasslands, savanna, forests and jungles.

Behavior: Like the giraffe, female elephants live in small herds led by the oldest female. Males usually live alone and will often fight to establish a sense of dominance.

Status: Endangered.

Walrus

Description: The walrus is a large, whiskered animal with long tusks and flippers. A large animal can weigh as much as 1800 kg (4,000 lb). In the water, the walrus swims by using both its flippers and its whole body as it shifts from side to side.



Skeletal Features: Like the elephant, the walrus's tusks are elongated teeth. Instead of being the second incisor, the walrus's tusks are its canine teeth.

Habitat: There are three types of walruses. This one is found in the Arctic waters of the Atlantic Ocean. Other species live in the Pacific Ocean and the Laptev Sea.

Behavior: Walruses live in large colonies that are separated into male and female groups. They migrate twice a year spending the summer months in the north and the winter months in the south. During mating season, males call out loudly to establish their dominance over other males nearby. Body size, tusk length and the loudness of their calls are all markers of dominance.

Status: Low risk.

Amphibian

Marsh Frog

Description: Usually green or brown and spotted, the Marsh Frog lives near or in water. This specimen comes from western Europe where they are dark green to black. The females grow up to 17 cm (6¾") long while the males are a bit smaller.

Habitat: They range over all parts of Europe to Russia, Afghanistan and northwest China.

Behavior: They eat prey common to ponds and marshes such as the dragon fly, slugs, insects, spiders and earthworms. Larger frogs can eat mice and fish.

Status: Not threatened.



Reptile

Flying Dragon/Draco Volans

Description: The flying dragon has moveable ribs with thin flaps of skin which can be extended to form "wings". It cannot fly, but it can glide. It feeds on ants and termites. They are brown, but males have blue under their wings while females have yellow underwings. They have five clawed fingers on each foot.

Habitat: Native to the tropical forests of Asia and India.

Behavior: Males defend a territory of two or three trees. Two or three females can live on each of these trees. The males will defend their territory with aggressive displays by opening and closing their wings to appear larger.

Status: Not threatened.

**Bird****Snowy Owl**

Description: The Snowy Owl is a large bird up to 65 cm (26") tall with a wing span of 150 cm (60"). It has distinctive white feathers, black beak and yellow eyes. It has a very thick layer of downy feathers that extend right down to its toes. These feathers provide insulation which is extremely important because it lives in the cold Arctic.

Habitat: The Snowy Owl usually lives in the North Polar Region.

Behavior: Because it lives above the tree line, it builds its nest in crevices on high boulders. From this vantage it can look for prey while protecting its young. After laying its eggs, both male and female protect and hunt for the chicks.

Status: Not threatened.

**Sea Turtle**

Description: The sea turtle's shell is made up of solid bone with large, thin scales stretched out over top. The shell protects their entire body except for the head and flippers. Sea turtles breathe air, so even though they spend the majority of their lives underwater, they must come to the surface every four to five minutes and take one quick breath before submerging. This photograph shows a green turtle which is the largest sea turtle and can grow up to 1.8 m (6') and weigh 270 kg (600 lb).

Habitat: They live in all the planet's oceans except the Arctic. The green turtle is born on islands in the Great Barrier Reef off the coast of Australia.

Behavior: Sea turtles have some remarkable senses. They can see very well in water, but their eyesight is limited on land. They can smell food from a very young age allowing them to find shrimp and other foods even in dark and murky water. Sea turtles mate every two to four years. The females return to the same beach where they lay between 100 and 115 eggs at night.

Status: Endangered.

**Flamingo**

Description: Flamingos are filter feeders which means they have a unique beak which is "upside down". They stick their beak in water and sift the mud and silt to separate the brine (tiny shrimp) from the mud. They have a "hairy" tongue which helps them filter the water.

Habitat: The flamingo has a very wide distribution. There are several different species that live in tropical and subtropical regions of North, Central and South America, Africa, India, the Middle East, Mediterranean and Europe.

Behavior: Flamingos often stand on one leg in the water. Flamingos are born grey, but turn light pink to dark red because of a pigment found in their food.

Status: The flamingo is not endangered, however, there have been instances where thousands have died as a result of disease or disruption to feeding or breeding grounds.

**Diamondback Water Snake**

Description: With their distinctive brown or green diamond scale patterns, the Diamondback is easy to recognize, but is sometimes mistaken for the poisonous Cottonmouth. It is a large, thick bodied snake growing up to 1.25 m (4') long. It has a wide, flat head.

Habitat: They live in a wide area of North America from southern Canada to northern Mexico and Cuba. Their primary range is south eastern United States.

Behavior: They live near bodies of water where they hunt fish and amphibians. The will occasionally eat rodents. They will defend themselves aggressively and will bite if provoked. They can spray a foul smelling musk when threatened.

Status: Generally they are not threatened.

**Fish****Barracuda**

Description: The barracuda has a long, thin body with a powerful jaw and large tail. The stomach is white and the scales along the back are grey or green.

Habitat: The barracuda lives in warm ocean waters around the world. The young live in the protected areas of coral reefs. While still young, the barracuda form schools for protection and for greater effectiveness while hunting. As they develop they move out of the reef and away from the schools to live at the edges of the reef.

Behavior: There are different species of barracuda. The largest ones live a solitary life. They are excellent hunters. They lay in wait and then with a surprising burst of speed, jet out and grab their prey in powerful jaws. After they've eaten, a barracuda may herd other prey fish into shallow waters and guard over them until they are ready to eat again.

Status: Not threatened.



