

SCIENCE 402

ANIMALS

CONTENTS

I. HOW ANIMALS ARE STRUCTURED	3
How Animals Travel	4
How Animals Eat and Digest Food	16
How Animals Breathe	17
II. HOW ANIMALS ACT	21
Mammals	21
Fish	23
Birds	25
Insects	27
III. HOW ANIMALS ARE PROVIDED FOR AND PROTECTED	34
God Gave Instinct to Animals	34
Man Protects Animals	38

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□ Restudy these words.

amphibian

gill

schedule

amoeba

invertebrate

shrew

aquarium

ivory

sperm whale

armor

migrating

spout

barbicel

navigate

tern

barbs

pore

tortoise

belly

python

vertebrate

boa constrictor

refuge

wheatear

breeding ground

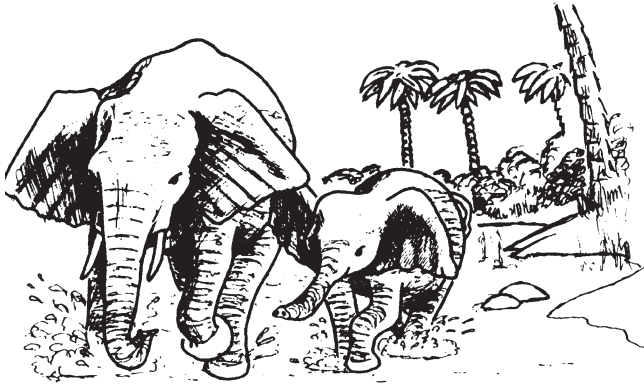
reptile

extinct

salamander

HOW ANIMALS TRAVEL

Have you ever gone with someone to the zoo? Did you notice that an elephant has four large, strong legs to hold him up and to help him walk?



When God created elephants, He provided them with strong legs because the elephants weigh so much. The elephant is the largest of all land animals. A full-grown African elephant often weighs more than 10,000 pounds (4,600 kg). In spite of his size, an elephant can run as well as walk.

Elephants are mammals. Mammals

are one class of five classes of animals called **vertebrates**. This word means the animal has a backbone. Animals that do not have backbones are called **invertebrates**. Mammals also have hair and most of them breathe by means of lungs. The female mammals make their own milk to feed their young. Mammals are warm-blooded animals. The word *warm-blooded* means that their blood stays the same temperature all the time.

There are two kinds of elephants in the world. One kind of elephant lives in Asia, the other kind in Africa. Both kinds have large bodies, strong legs, and long trunks. An adult elephant is about as tall as it is long. The elephant's trunk is a strong and useful part of the animal. It measures about 6 feet (2 m) long and weighs about 300 pounds (140 kg). He uses it to carry food to his mouth. Two teeth,

called tusks, stick out from the elephant's upper jaw. The tusks of elephants are made of ivory. The elephant uses his tusks for digging up food and for fighting. He also uses them for lifting and carrying heavy loads.

Because an elephant is so big and heavy we would expect him to be very noisy when he moves. However, a large herd of elephants can move out of a forest and disappear without

breaking a twig or making a sound. Because his ankles are located near the bottom of his legs, an elephant can walk easily and even slide down a steep bank or walk over sliding stones without stumbling or injuring himself. The elephant's foot is nearly round with a soft part on the bottom that acts like a cushion. If his foot sinks into the mud, he can pull his legs out easily because his feet become smaller when he lifts them.



Write the correct word in the blank.

- 1.1 An elephant has four large, _____ legs.
- 1.2 The elephant is the _____ of all land animals.
- 1.3 An elephant is called a _____.
- 1.4 There are _____ kinds of elephants in the world.
- 1.5 The elephant tusk is a long, hard _____.
- 1.6 A hard, white material present in elephant tusks is called _____.



Write true or false.

- 1.7 _____ Elephants are very noisy animals when they travel.
- 1.8 _____ Several elephants traveling together are called a herd.
- 1.9 _____ An elephant's foot is nearly round.
- 1.10 _____ Because of their great weight, elephants cannot get out of mud very easily.
- 1.11 _____ The elephant is the largest of all land animals.
- 1.12 _____ A full-grown African elephant can weigh as much as eight or ten thousand pounds.
- 1.13 _____ The elephant's ankle is located near the middle of the leg.
- 1.14 _____ Elephants can run as well as walk.

You already know that mammals are animals with hair and that the female mammal makes her own milk to feed her young. Over 3,500 kinds of mammals are in the world. Some are large like the elephant. Some are small like the **shrew**, which weighs **less than a penny**. The shrew is the **smallest mammal**.

The elephant is not the largest animal. The elephant is the largest *land* animal, but the whale is the largest animal of all the mammals.

You may not have thought of the whale as a mammal, since the whale lives in the ocean. Whales are not fish. Whales bear their young alive. They feed their babies with their own milk, breathe through their lungs, and have to hold their breath when they dive under the water. Whales are warm-blooded animals like land animals, not cold-blooded animals like fish.

Whales are shaped like fish, but whales' tails are flat. They swim by moving their tails up and down. A whale's nose forms a blowhole on the top of the head. Now and then the whale must come to the surface for air. This breathing produces what is called a spray or **spout**. The air in the lungs gets full of moisture. When the whale comes to the top of the water, it blows out its breath through the blowholes (nostrils) at the top of its head.

One kind of whale, called the **sperm whale**, is sometimes called a "living oil tank" because it stores so much oil in its head. Sperm whales are so valuable, because of their oil, that men have hunted them for centuries. So many have been killed that the sperm whale, and some of the other kinds of whales, are in danger of becoming **extinct**.



In each blank place the letter and word or words to make a correct sentence.

- 1.15 Whales are _____ animals.
a. cold-blooded b. warm-blooded
- 1.16 Whales breathe by means of their _____.
a. mouth and gills b. lungs and mouth or nose
- 1.17 The whale's nose on the top of its head is called a _____.
a. blowhole b. spout
- 1.18 The sperm whale is much desired by whalers because of the large amount of _____ which it has in its body.
a. blood b. oil



Write *true* or *false*.

- 1.19 _____ The elephant is the largest mammal in the world.
- 1.20 _____ The shrew is the smallest mammal.
- 1.21 _____ Whales are the largest fish in the world.
- 1.22 _____ Whales are cold-blooded animals.
- 1.23 _____ Fish are warm-blooded animals.
- 1.24 _____ The whale's tail is flat.
- 1.25 _____ Whales swim by moving their tails up and down.
- 1.26 _____ Whales can stay under water as long as a day or two without coming to the top.
- 1.27 _____ The blowholes of a whale are in the gills.
- 1.28 _____ Any kind of animal which has completely died off is said to be *extinct*.



Do this library research.

Look up *whale* in an encyclopedia. Write your answer to the question in the space provided. Use complete sentences.

- 1.29 How can whalers tell the difference among these three kinds of whales?
- a. The blue whale
 - b. The right whale
 - c. The sperm whale





Blue Whale

Right Whale

Sperm Whale

Did you ever hear the cry of wild geese as they were flying south? They were on their way to warmer land. They were **migrating**. Geese fly in a pattern forming a V.



Flock of Geese

Wild geese are the highest-flying birds in the world. Some have been known to fly as high as 29,000 feet (9,000 m). This distance is the highest ever recorded for birds. However, most birds remain under the clouds when they are migrating.

The ability of birds to **navigate** long distances is amazing. Birds make their long trips without the help of chart or compass. One little bird called the **wheatear**, about the size of a sparrow, travels every year all the

way from Africa to Greenland. It travels on a fixed **schedule**. Nearly all of its trips are made at night. The bird flies over great stretches of water and wilderness. Who tells the bird where to go and when?

Do you know what bird flies the greatest distance? It is the Arctic **tern**. The Arctic tern migrates from the Arctic to Antarctica and returns. This round trip flight is 22,000 miles (35,000 km). The terns leave in August. They spend the winter in Antarctica. Then they return north in the middle of June.

Some birds travel by night; other birds travel by day. Some birds travel alone; others in flocks. Some take one route going, and another returning.

A scientist once said that a bird uses about the same type of equipment as a plane—wings, propellers, steering gear, slots, and flaps. Where do you think man got his idea of a flying machine with wings, propellers, steering gear, slots, and flaps?

What a wonderful God we have **who created birds in such a way that they can fly on such long trips without getting lost.**



Select the word or phrase that best completes the sentence and place the letter and the words in the blank.

- 1.30 *Navigate* means to _____.
- | | |
|-----------------|----------------------------|
| a. tell a story | c. follow a planned course |
| b. wander | d. run slowly |