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WELCOME TO

GOD'S DESIGN[®] FOR LIFE



You are about to start an exciting series of lessons on life science. *God's Design[®] for Life* consists of three books: *The World of Plants*, *The World of Animals*, and *The Human Body*. Each of these books will give you insight into how God designed and created our world and the things that live in it.

No matter what grade you are in, first through eighth grade, you can use this book.




1st–2nd grade

Read only the “Beginner” section of each lesson, answer the questions at the end of that section, and then do the activity in the  box (the worksheets will be provided by your teacher).

3rd–5th grade

Skip the “Beginner” section and read the regular part of the lesson. After you read the lesson, do the activity in the  box and test your understanding by answering the questions in the  box.

6th–8th grade

Skip the “Beginner” section and read the regular part of the lesson. After you read the lesson, do the activity in the  box and test your understanding by answering the questions in the  box. Also do the “Challenge” section in the  box. This part of the lesson will challenge you to go beyond just elementary knowledge and do more advanced activities and learn additional interesting information.

Everyone should read the Special Features and do the final project. There are also unit quizzes and a final test to take.

Throughout this book you will see special icons like the one to the right. These icons tell you how the information in the lessons fit into the Seven C's of History: Creation, Corruption, Catastrophe, Confusion, Christ, Cross, Consummation. Your teacher will explain these to you.



Let's get started learning about God's design of amazing animals!



UNIT

1

MAMMALS

- ◇ **Distinguish** between vertebrates and invertebrates.
- ◇ **Identify** the five characteristics of mammals.
- ◇ **Distinguish** between apes and monkeys.
- ◇ **Distinguish** between marsupials and other mammals.

- 1 The World of Animals • 8**
- 2 Vertebrates • 11**
- 3 Mammals • 14**
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KEY CONCEPTS | UNIT LESSONS



THE WORLD OF ANIMALS

Is it a mouse or a moose?

LESSON

1



What is the difference between vertebrates and invertebrates?

Words to know:

vertebrates

invertebrates

BEGINNERS

Do you like animals? Most people do. Animals are very interesting. They come in all shapes and sizes. Some animals are big such as elephants. Other animals are so small you can only see them with a microscope. Genesis 1 tells us that in the beginning God created various kinds of animals, such as the cat kind, horse kind, and elephant kind. Today, there are many different types of animals within each kind.

Scientists have divided all the animals into two main groups. One group includes all the animals that have backbones. These animals are called **vertebrates**. The other group includes all the animals that do not have backbones. These animals are called **invertebrates**. Most animals that you probably think of are vertebrates. Dogs, cats, horses, birds, and snakes all have backbones.

The vertebrates have been divided into five groups. These groups are mammals, birds, fish, amphibians, and reptiles. We will learn about each of these groups and study some of the wonderful animals in each group.

Later in this book we will also study some of the invertebrates such as jellyfish, insects, spiders, and crabs. We hope you enjoy learning about all the different animals that God made.

- **How many different types of animals are there?**
- **What are the two big groups of animals?**
- **Who made all the different animals?**



Animals and plants are the two largest and most familiar groups of living things. The most distinguishing difference between plants and animals is that plants can make their own food and animals cannot. Animals (and man) were originally created to eat plants to obtain energy (Genesis 1:28–30). Since the Fall of man in the Garden of Eden, many animals still eat plants but others eat animals to obtain energy. Because animals must obtain their own food, they are mobile. They can move about to find plants or animals to eat.

Animals come in all shapes and sizes. Some are so tiny you can only see them with a microscope. Others are as huge as a car or even a house. God originally created various animal kinds, like the cat kind, horse kind, and elephant kind. Since the Flood of Noah's day, these animal kinds have spread around the world and have adapted to different environments, so that today there are many different species of animals within each kind. Scientists have classified over 1 million different species of animals, and there may be millions more that have not been classified.

In order to study so many different types of animals it is convenient to group them together by their similar characteristics. The first grouping that scientists make is to divide animals by whether they have backbones or not. Animals with backbones are called **vertebrates**. Animals without backbones are called **invertebrates**.

Although only 3% of all animals are vertebrates, they are the animals we are most familiar with. Vertebrates are the animals we see around us every day. Every vertebrate has a backbone. The backbone protects the spinal cord that passes through it. Vertebrates have the same major systems that humans have, including skin, skeletal, muscular, nervous, respiratory, and digestive systems. Although all of these systems occur in all vertebrates, they vary considerably among the different kinds of animals.

Vertebrates are divided into five different groups: mammals, birds, fish, amphibians, and reptiles. We will explore each of these groups in more detail.

Invertebrates are animals without spinal cords. They are very diverse and account for nearly 97% of all animals. Invertebrates do not have internal skeletons. Invertebrates include sponges, jellyfish, worms, insects, and many more creatures. We will also study each group of invertebrates in more detail. ■



The African elephant is the largest living land animal.



Squids are some of the largest invertebrates.



ANIMAL CHARADES

This can be a fun family game. Pretend to be an animal and have everyone else guess what animal you are. Whoever guesses the animal correctly gets to be the next animal. Choose animals other than mammals, with which you are most familiar.

WHAT DID WE LEARN?

- What are the two major divisions of animals?
- What are two similarities among all animals?

TAKING IT FURTHER

- When did God create the different animal kinds?
- How is man different from animals?



UNUSUAL ANIMALS

There are many animals that you are familiar with. But with over a million different species, there are bound to be many that you are unfamiliar with as well. Below is a list of unusual animals. See what you can find out about each of these animals from an animal

encyclopedia or other source, and prepare a short report to share with your class or family. Three of them are shown below. Can you identify them?

- Pangolin
- Common snipe

- Echidna
- Grouper
- Liver fluke
- Common whelk
- Queen Alexandra's Birdwing

