

By **Lawrence F. Lowery**

**NSTA Kids**  
National Science Teachers Association

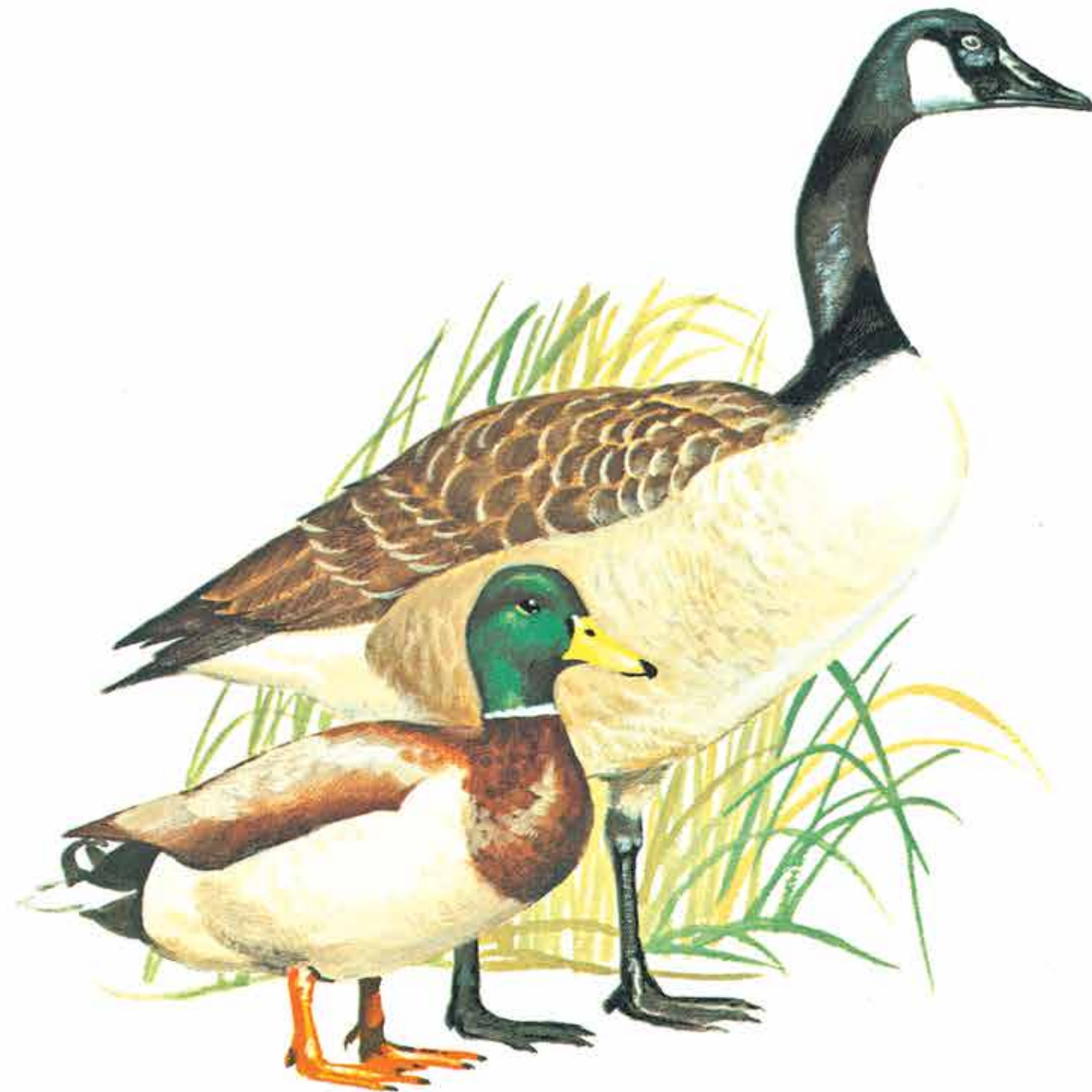
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# ANIMALS

## TWO BY TWO







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By **Lawrence F. Lowery**

Illustrated by **Richard Amundsen**





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**Introduction**

The *I Wonder Why* series is a set of science books created specifically for young learners who are in their first years of school. The content for each book was chosen to be appropriate for youngsters who are beginning to construct knowledge of the world around them. These youngsters ask questions. They want to know about things. They are more curious than they will be when they are a decade older. Research shows that science is students’ favorite subject when they enter school for the first time.

Science is both *what* we know and *how* we come to know it. What we know is the content knowledge that accumulates over time as scientists continue to explore the universe in which we live. How we come to know science is the set of thinking and reasoning processes we use to get answers to the questions and inquiries in which we are engaged.

Scientists learn by observing, comparing, and organizing the objects and ideas they are investigating. Children learn the same way. The thinking processes are among several inquiry behaviors that enable us to find out about our world and how it works. Observing, comparing, and organizing are fundamental to the more advanced thinking processes of relating, experimenting, and inferring.

The five books in this set of the *I Wonder Why* series focus on the biological sciences. Biology is the study of living things. It is such a large field of study that scientists have divided it into two parts: botany (the study of plants) and zoology (the study of animals). Each of those parts is then divided into many more fields of study.

These books introduce the reader to basic science content pertaining to plants and animals. The content includes

the concepts of growth, life cycles, and food chains (*The Tree by Diane’s House*); inferences derived by observing patterns in plant structures (*Our Very Own Tree*); factors needed for a healthy living environment (*Tommy’s Turtle*); protective coloration and camouflage characteristics of animals (*Looking for Animals*); and comparisons of observable similarities and differences among animals (*Animals Two by Two*).

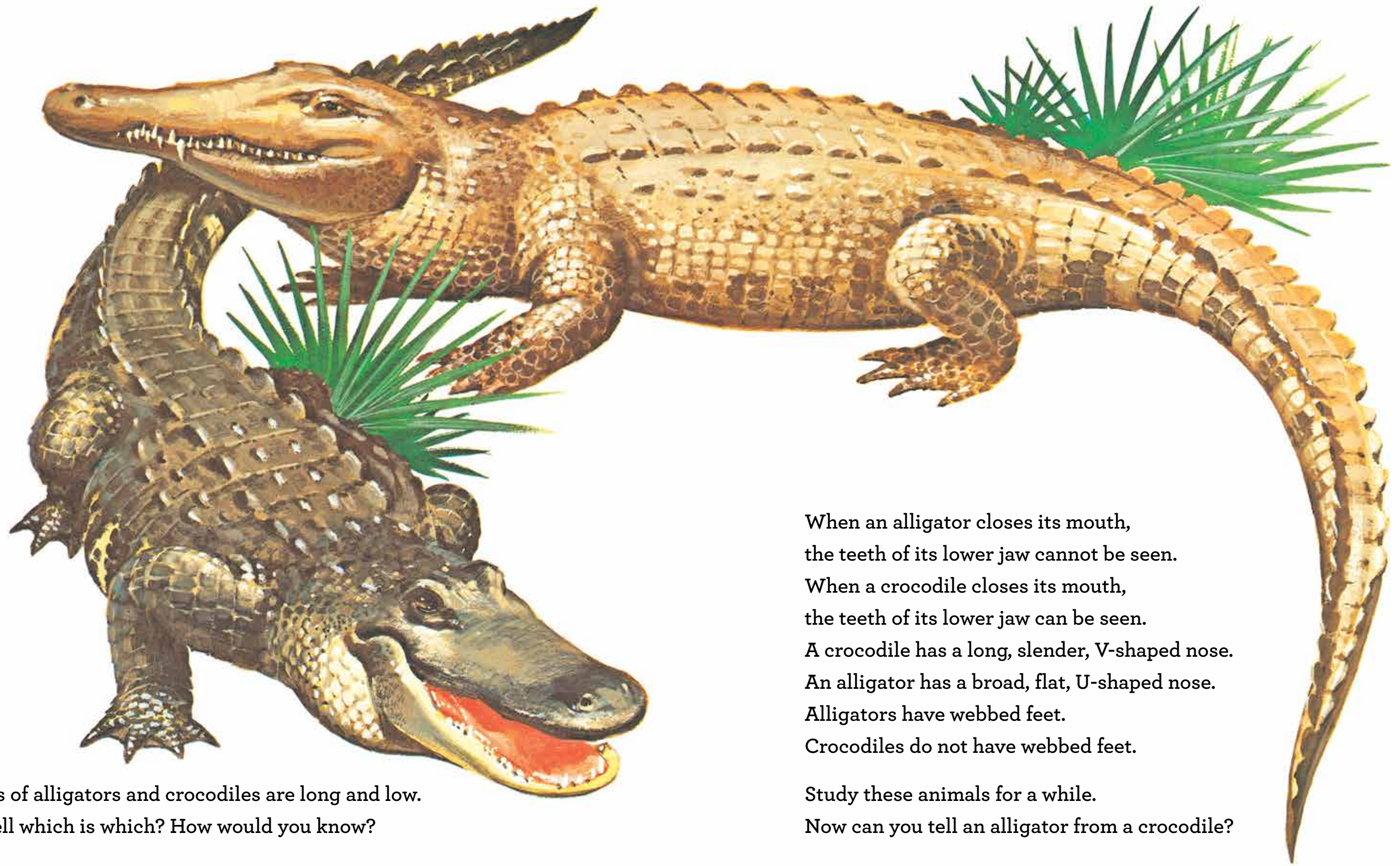
Each book uses a different approach to take the reader through simple scientific information. A couple of books are expository, providing factual information. A few are narratives that involve the reader in the discovery of the properties of living organisms. Another book uses cumulative rhythmic sentences to engage the reader in a form of literary growth that corresponds with the biological growth in the story. The combination of different literary ways to present information brings the content to the reader through several instructional avenues.

In addition, the content in these books supports the criteria set forth by the *Common Core State Standards*. Unlike didactic presentations of knowledge, the content is woven into each book so that its presence is subtle but powerful.

The science activities in the Parent/Teacher Handbook in each book enable learners to carry out their own investigations related to the content. The materials needed for these activities are easily obtained, and the activities have been tested with youngsters to be sure they are age appropriate.

After the reader completes a science activity, rereading or referring back to the book and talking about connections with the activity can be a deepening experience that stabilizes the learning as a long-term memory.



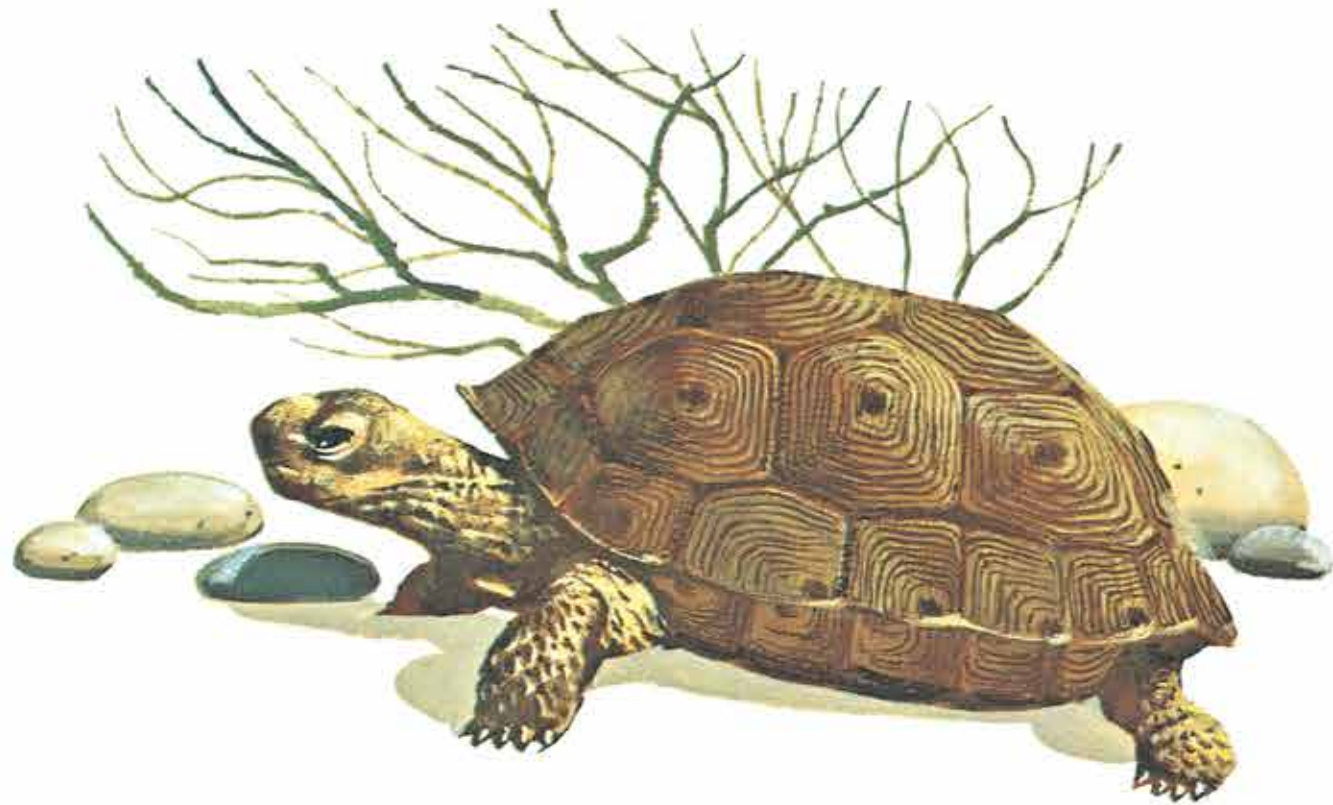


The bodies of alligators and crocodiles are long and low.  
Can you tell which is which? How would you know?

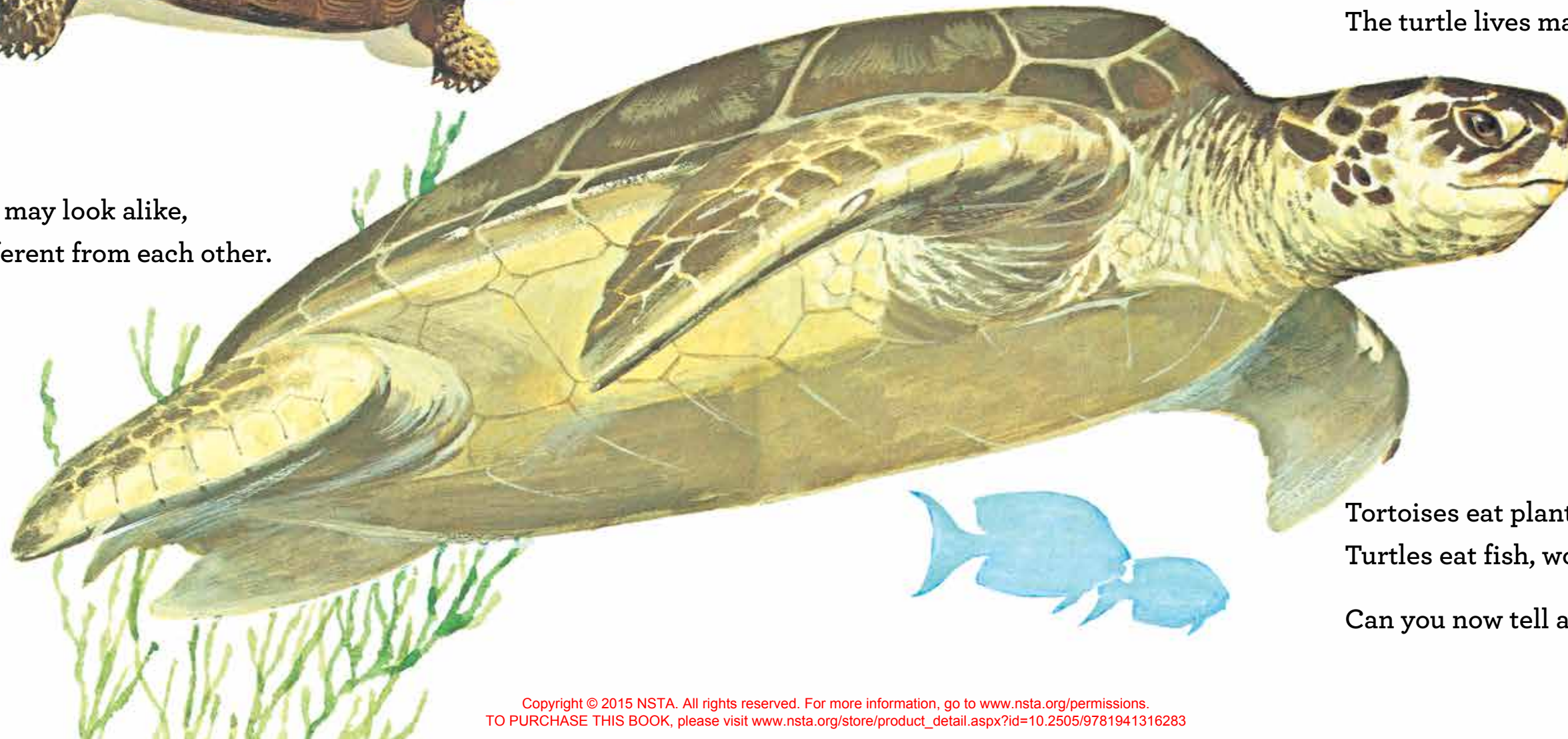
When an alligator closes its mouth,  
the teeth of its lower jaw cannot be seen.  
When a crocodile closes its mouth,  
the teeth of its lower jaw can be seen.  
A crocodile has a long, slender, V-shaped nose.  
An alligator has a broad, flat, U-shaped nose.  
Alligators have webbed feet.  
Crocodiles do not have webbed feet.

Study these animals for a while.  
Now can you tell an alligator from a crocodile?





Turtles and tortoises may look alike,  
but they are very different from each other.



The feet of turtles are webbed, and their legs are smooth like flippers for swimming. The feet of tortoises have toes and claws, and their bent legs are sturdy for walking and digging.

Most tortoises have a heavy, dome-shaped shell. You can feel raised parts on top of the shell. Most turtles have a light shell that is flat and nearly smooth.

The tortoise lives in dry places on land. The turtle lives mainly in or near water.

Tortoises eat plants.

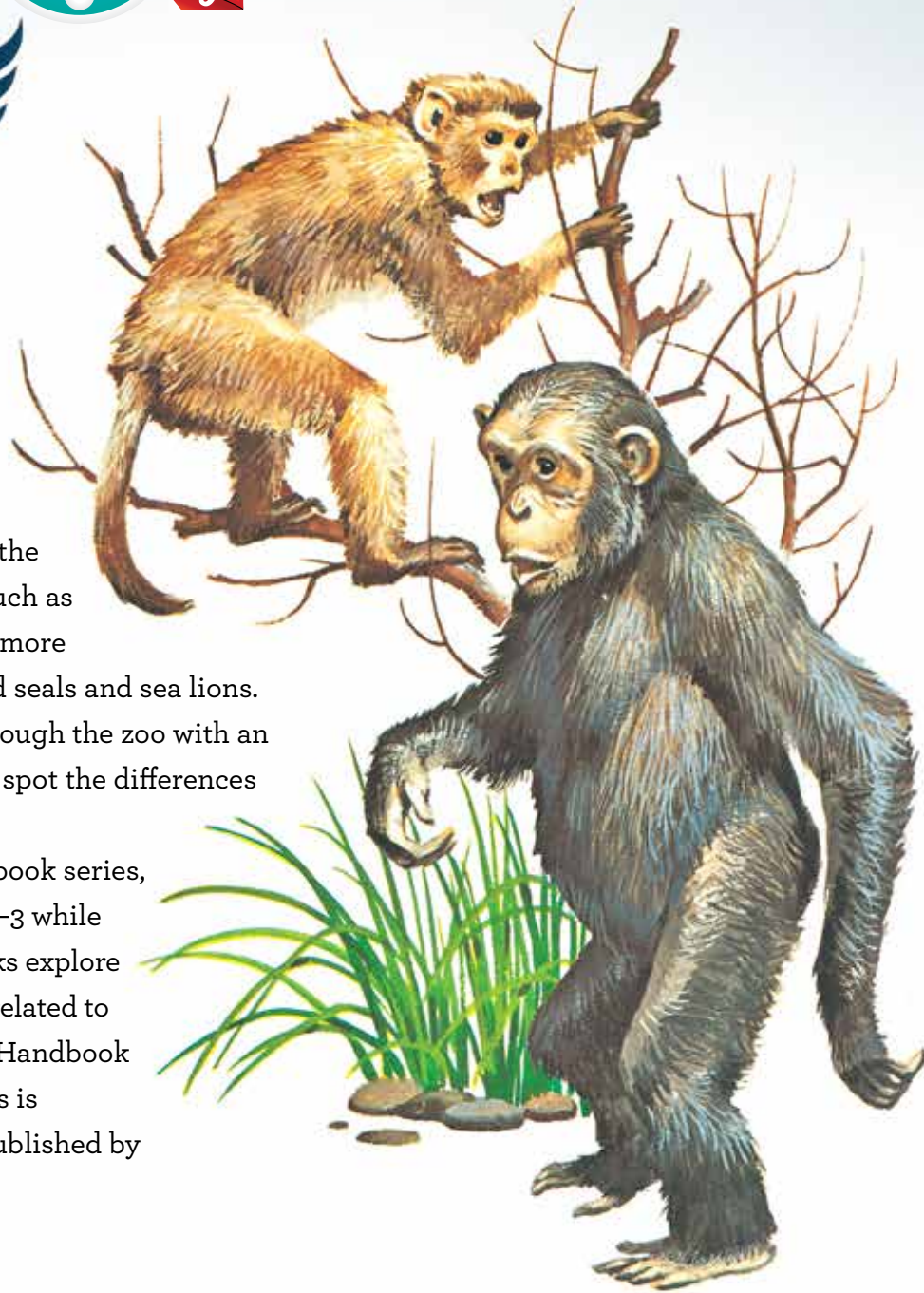
Turtles eat fish, worms, and insects.

Can you now tell a tortoise from a turtle?





# ANIMALS TWO BY TWO



Children who love both animals and a rousing game of I Spy will have fun with this book. To give kids practice identifying similarities and differences, the book starts by pairing easy-to-distinguish animals, such as zebras and horses. Then it moves on to duos that are more difficult to tell apart, such as turtles and tortoises and seals and sea lions. Reading *Animals Two by Two* is like taking a walk through the zoo with an eagle-eyed friend—one who wants to know if you can spot the differences between a frog and a toad or a mole and a vole!

*Animals Two by Two* is part of the *I Wonder Why* book series, written to ignite the curiosity of children in grades K–3 while encouraging them to become avid readers. These books explore the marvels of animals, plants, and other phenomena related to biology. Included in each volume is a Parent/Teacher Handbook with coordinating activities. The *I Wonder Why* series is written by an award-winning science educator and published by NSTA Kids, a division of NSTA Press.

**Grades K–3**

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