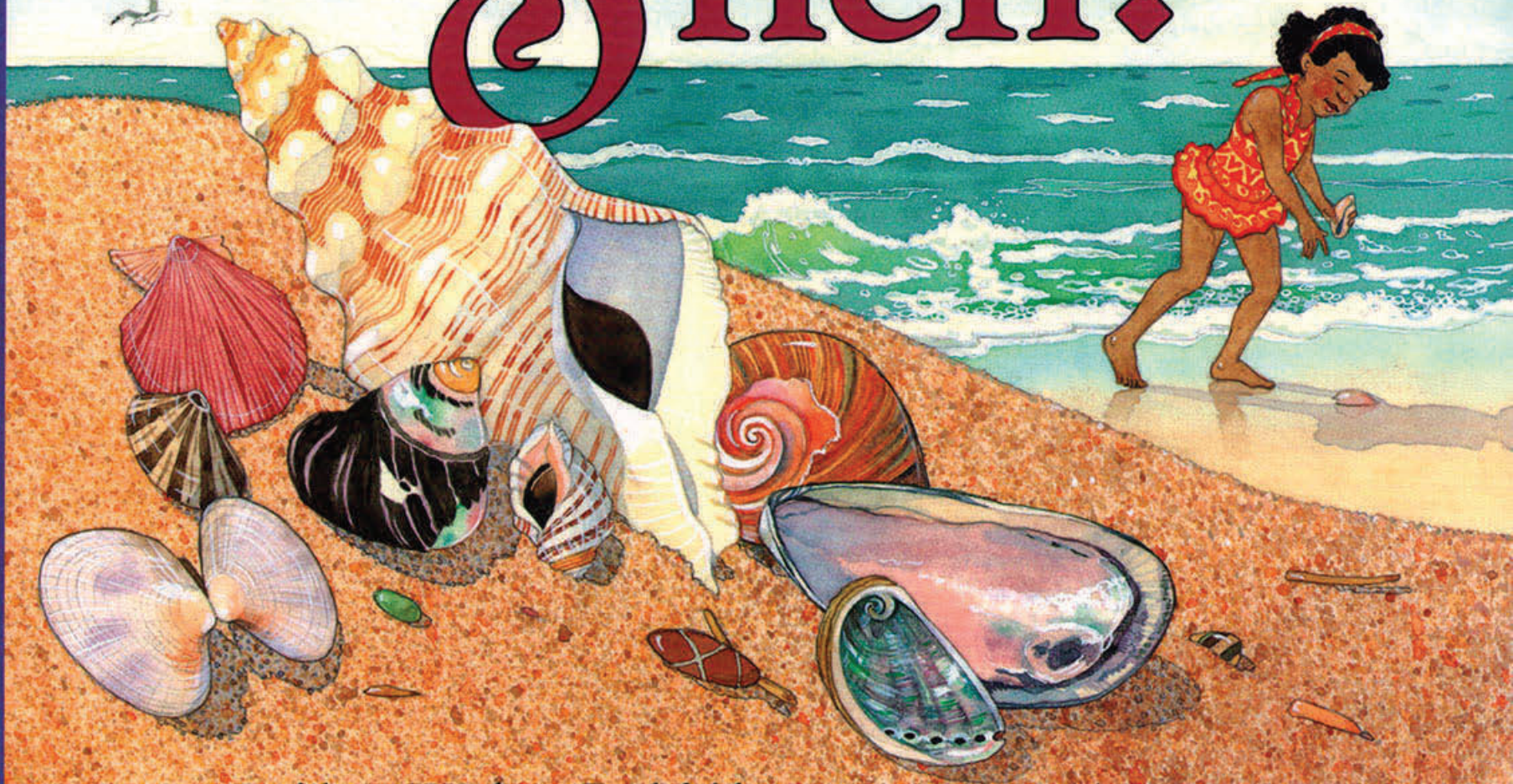


1
STAGE

What Lives in a Shell?

LET'S-READ-AND-FIND-OUT SCIENCE®



by Kathleen Weidner Zoehfeld • illustrated by Helen K. Davie

LET'S-READ-AND-FIND-OUT SCIENCE®



What Lives in a Shell?



by Kathleen Weidner Zoehfeld • illustrated by Helen K. Davie

 HarperCollinsPublishers

The *Let's-Read-and-Find-Out Science* book series was originated by Dr. Franklyn M. Branley, Astronomer Emeritus and former Chairman of the American Museum–Hayden Planetarium, and was formerly co-edited by him and Dr. Roma Gans, Professor Emeritus of Childhood Education, Teachers College, Columbia University. Text and illustrations for each book in the series are checked for accuracy by an expert in the relevant field. For a complete catalog of *Let's-Read-and-Find-Out Science* books, write to HarperCollins Children's Books, 10 East 53rd Street, New York, NY 10022.

HarperCollins®, , and *Let's-Read-and-Find-Out Science*® are trademarks of HarperCollins Publishers Inc.

WHAT LIVES IN A SHELL?

Text copyright © 1994 by Kathleen Weidner Zoehfeld

Illustrations copyright © 1994 by Helen K. Davie

All rights reserved. No part of this book may be used or reproduced in any manner whatsoever without written permission except in the case of brief quotations embodied in critical articles and reviews.

Manufactured in China. For information address HarperCollins Children's Books, a division of HarperCollins Publishers, 10 East 53rd Street, New York, NY 10022.

Library of Congress Cataloging-in-Publication Data

Zoehfeld, Kathleen Weidner.

What lives in a shell? / by Kathleen Weidner Zoehfeld ; illustrated by Helen K. Davie.

p. cm. — (Let's-read-and-find-out science. Stage 1)

Summary: Describes such animals as snails, turtles, and crabs, which live in shells and use these coverings as protection.

ISBN 0-06-022998-5. — ISBN 0-06-022999-3 (lib. bdg.) — ISBN 0-06-445124-0 (pbk.)

1. Body covering (Anatomy)—Juvenile literature. 2. Shells—Juvenile literature. [I. Shells. 2. Body covering (Anatomy). 3. Animal defenses.] I. Davie, Helen, ill. II. Title. III. Series.

QL941.Z64 1994

591.4'71—dc20

93-12428

CIP

AC

Typography by Elynn Cohen

13 14 SCP 30 29 28



What Lives in a Shell?







Do you know what this is?

It is as hard as a stone. But it is not a stone.
It is smooth, like glass. But it is not glass.
It is hollow inside, like a cup. But it is not a cup.
It is a shell. An animal made it. The shell was
the animal's home.



You live in a house or in an apartment building.
That is your home. Your home keeps you safe and warm.

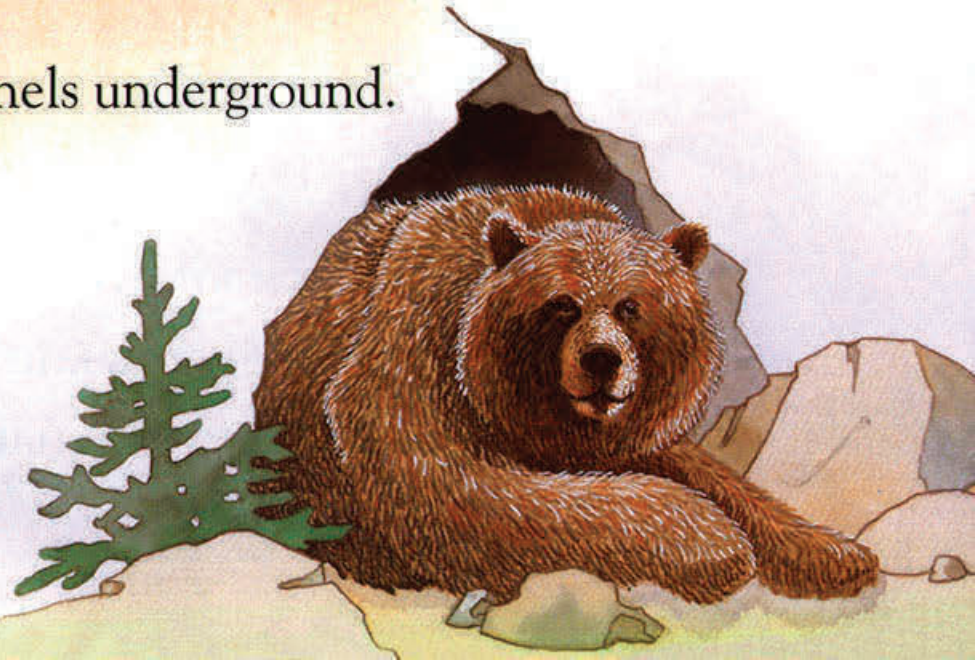


Lots of animals have homes.
Birds build nests.



Ants make tunnels underground.

A bear likes to live in a cave.



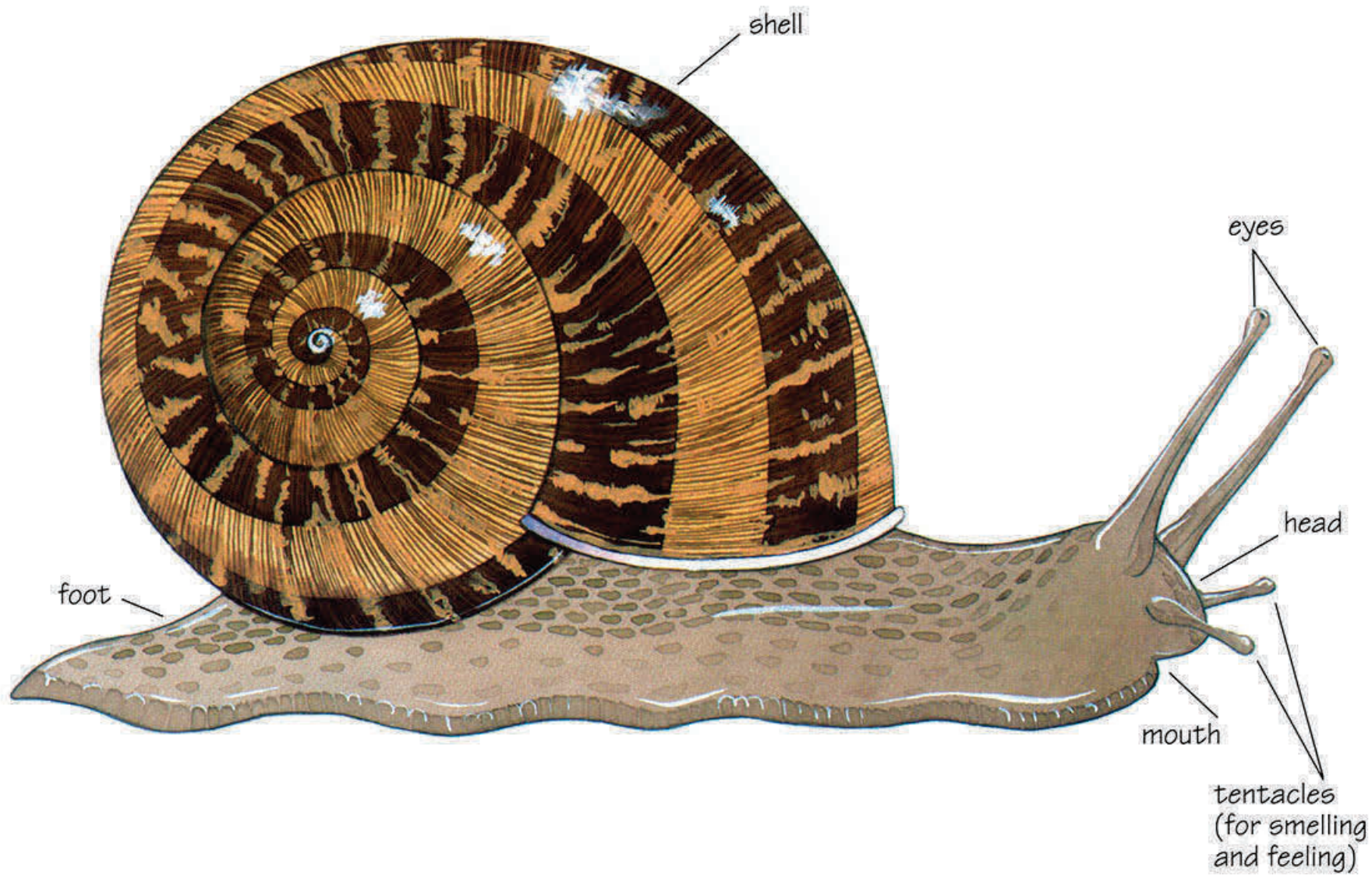


Here is the animal that lives in this kind of shell. It is a land snail.



A land snail is born with a tiny shell. As long as the snail lives, it keeps on growing.

As the snail grows, its shell grows with it. The shell keeps the snail safe.

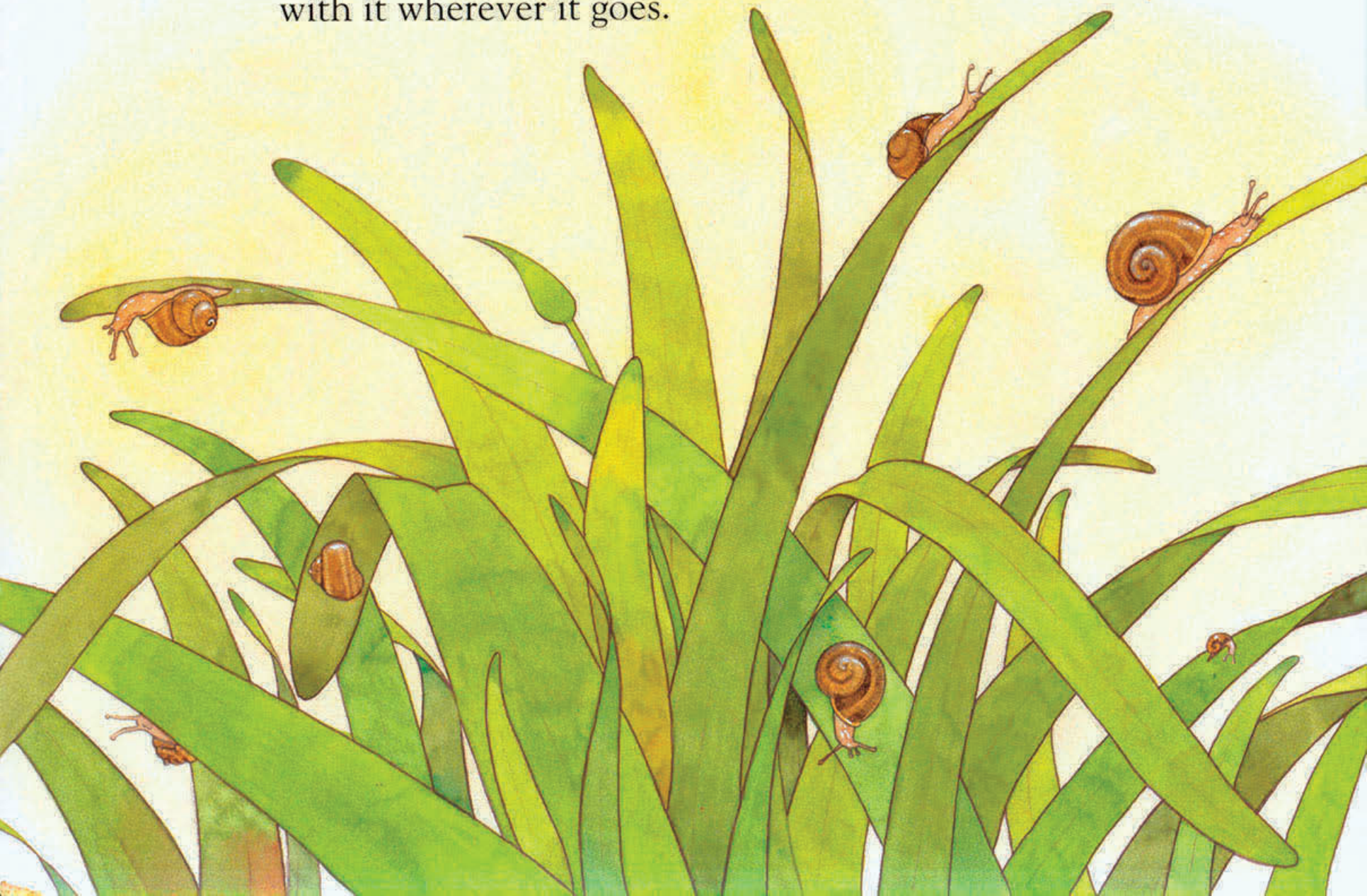


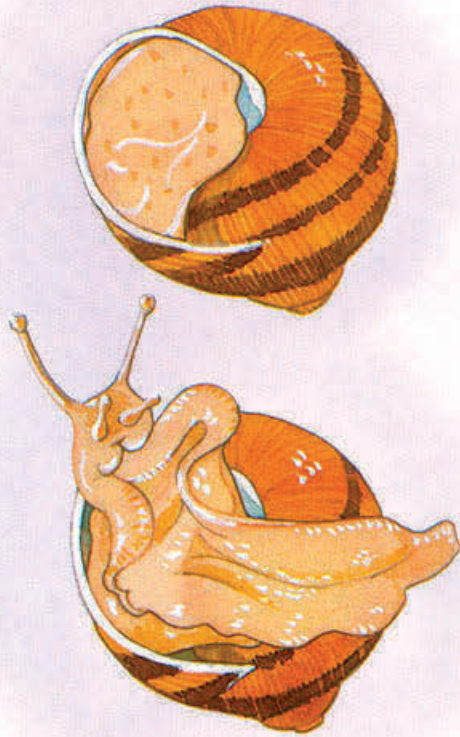


You can go in and out of your home. You can run to the playground. You can wait outside for the bus.

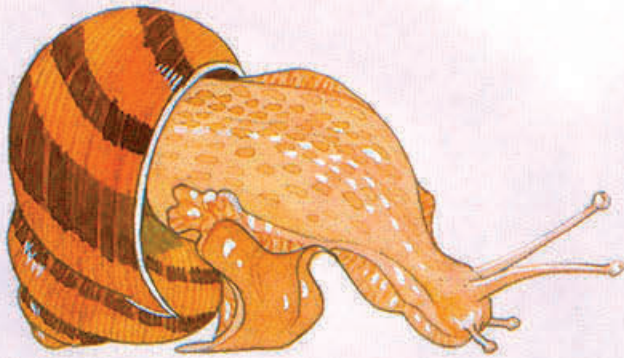


A snail never leaves its home. It takes its home
with it wherever it goes.

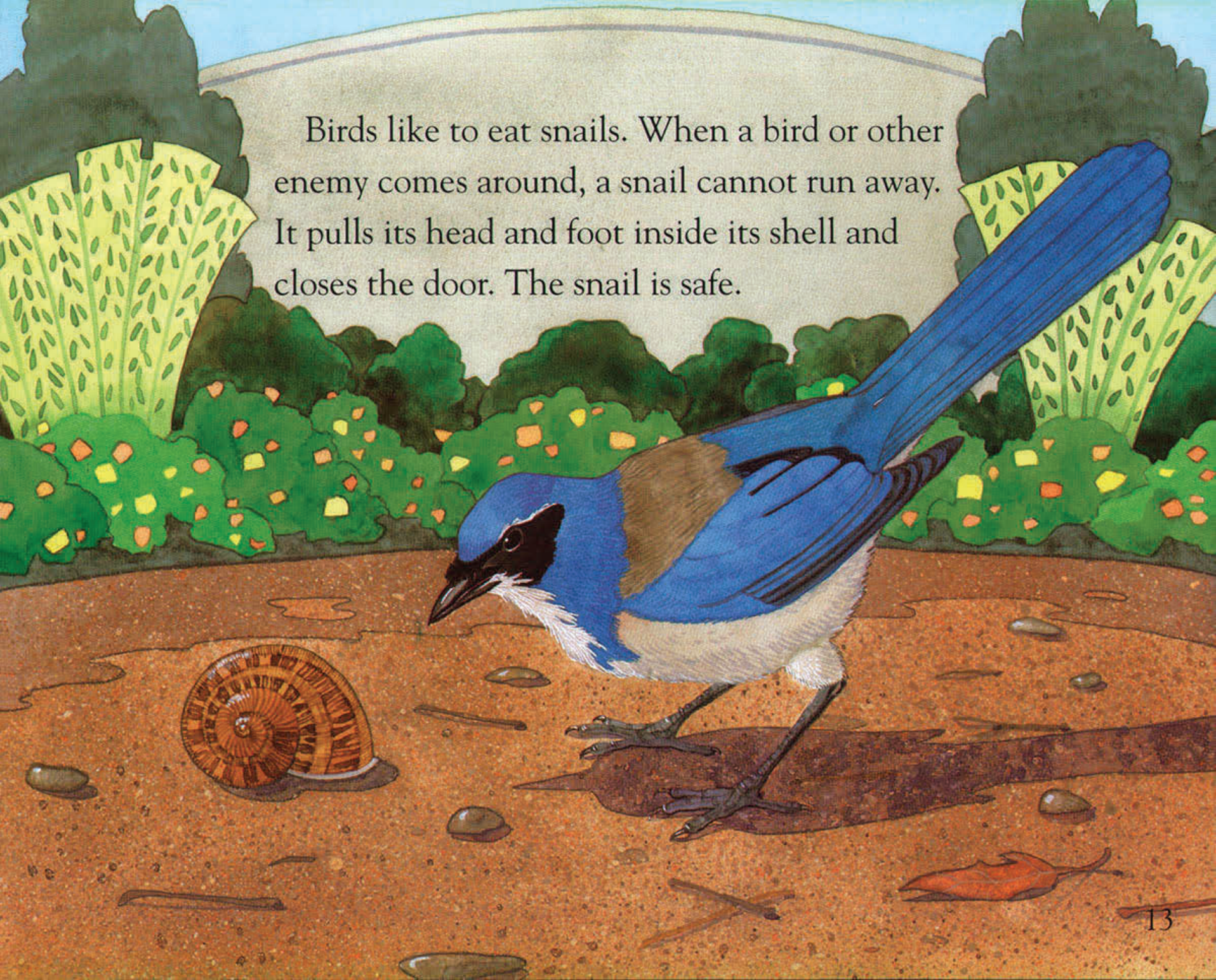


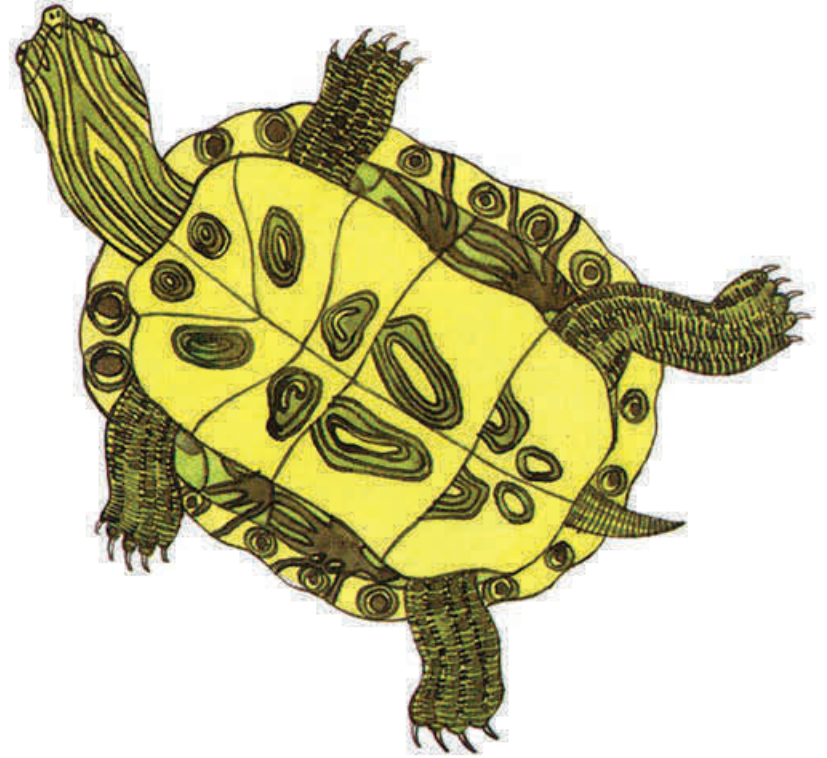
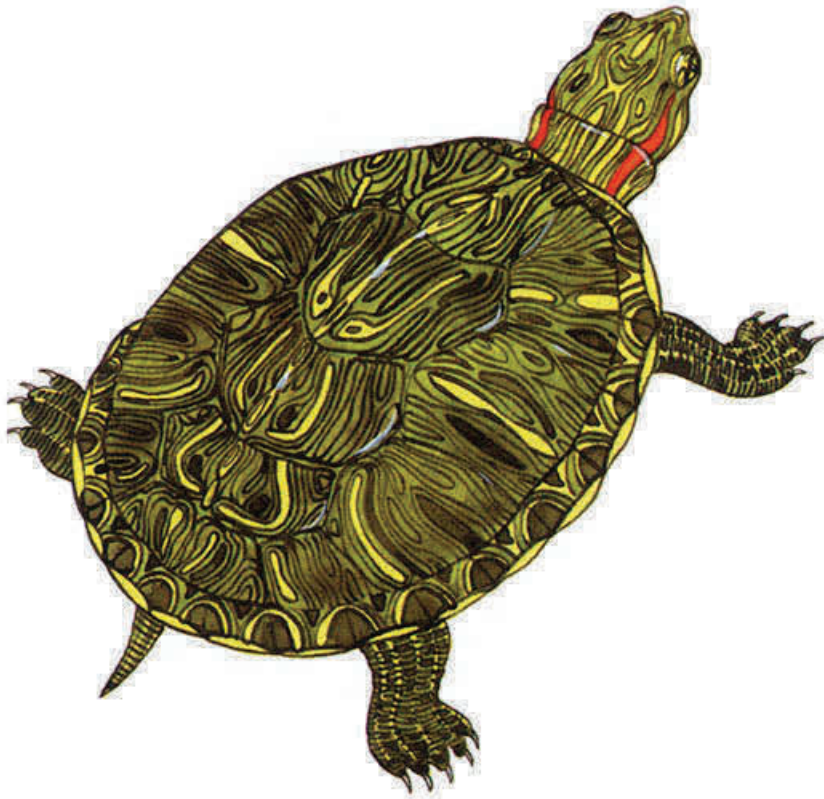


The snail pokes its soft head and its one big foot out of the opening in its shell. It uses its foot to inch along. A snail is slow.



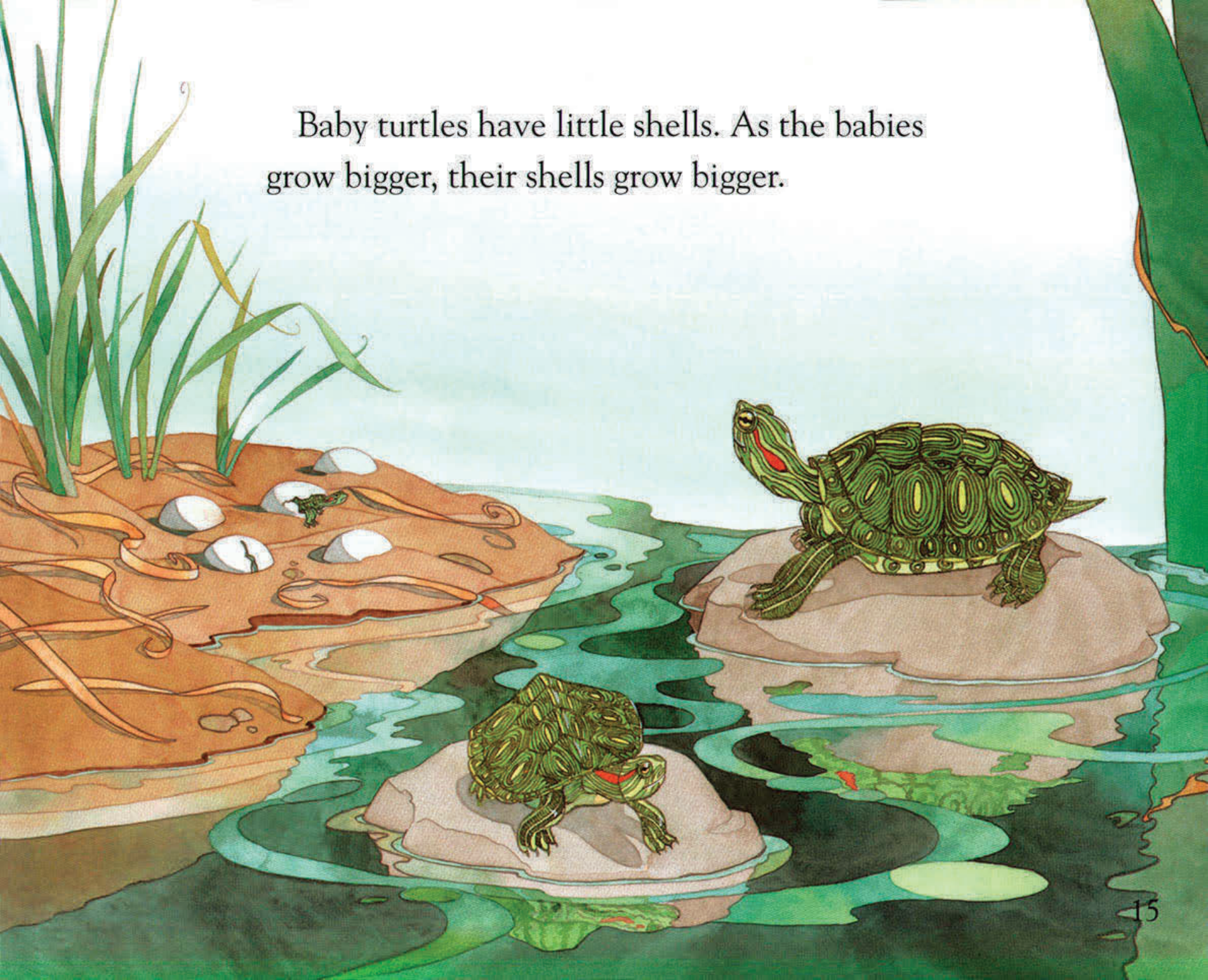
Birds like to eat snails. When a bird or other enemy comes around, a snail cannot run away. It pulls its head and foot inside its shell and closes the door. The snail is safe.





Other kinds of animals live in shells, too.
Shells come in many shapes, colors, and sizes.
Turtles live in shells. A turtle's shell can be
bumpy or smooth. Most are rounded on top and
flat on the belly.

Baby turtles have little shells. As the babies grow bigger, their shells grow bigger.





A turtle has four legs. It pokes its legs, head, and tail through the openings in its shell. Even though it has four legs, a turtle is slow.

Have you ever had a turtle race?

If a frog and a turtle were in a race, who do you think would win?

What about a cat and a turtle?



If a turtle sees a cat, it may be frightened. It may think the cat wants to eat it.

A turtle cannot run as fast as a cat. The turtle pulls its head and legs and tail into its shell. The cat pats the turtle with its paw. The turtle won't come out. It is safe in its shell home.



When you go to the seashore, you can find many different kinds of shells.

You may see a crab walking on the sand. A crab has ten legs. On its front legs are two claws. A hard shell covers its claws and the rest of its body.

A crab's shell fits it like a suit of armor. The armor helps keep the crab safe from enemies.

But just as you outgrow your favorite shirt, a crab outgrows its shell. When it gets too tight, the crab pulls itself out. Underneath is a new shell.

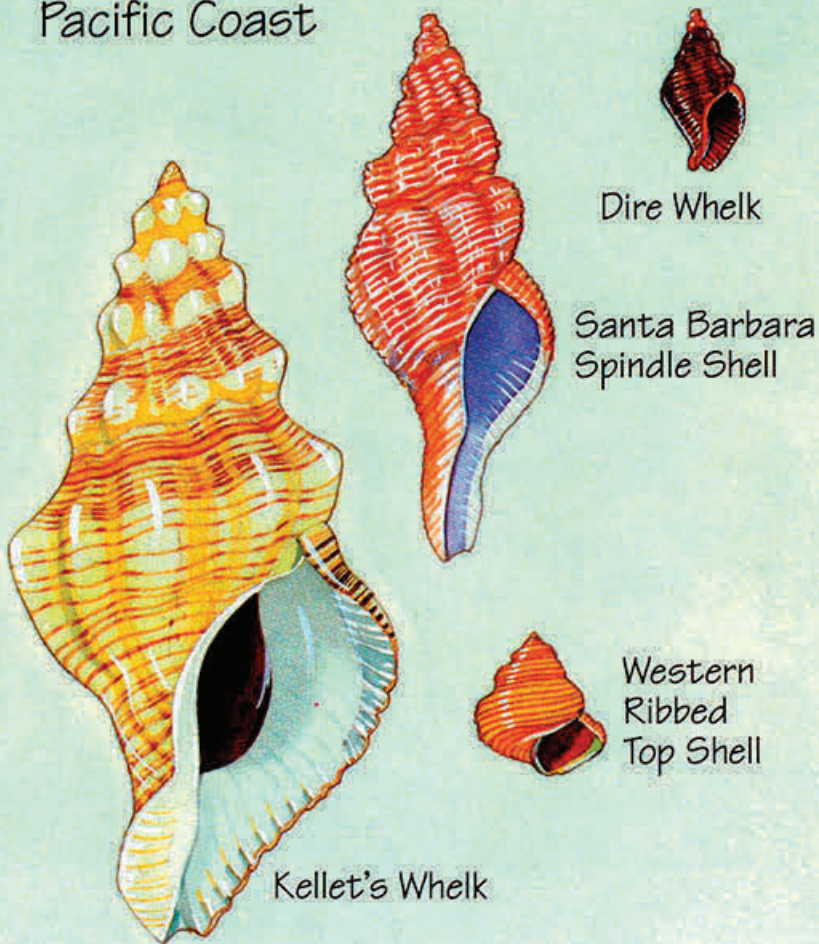


You may find snails buried in the sand. Some of them do not look much like the land snails.

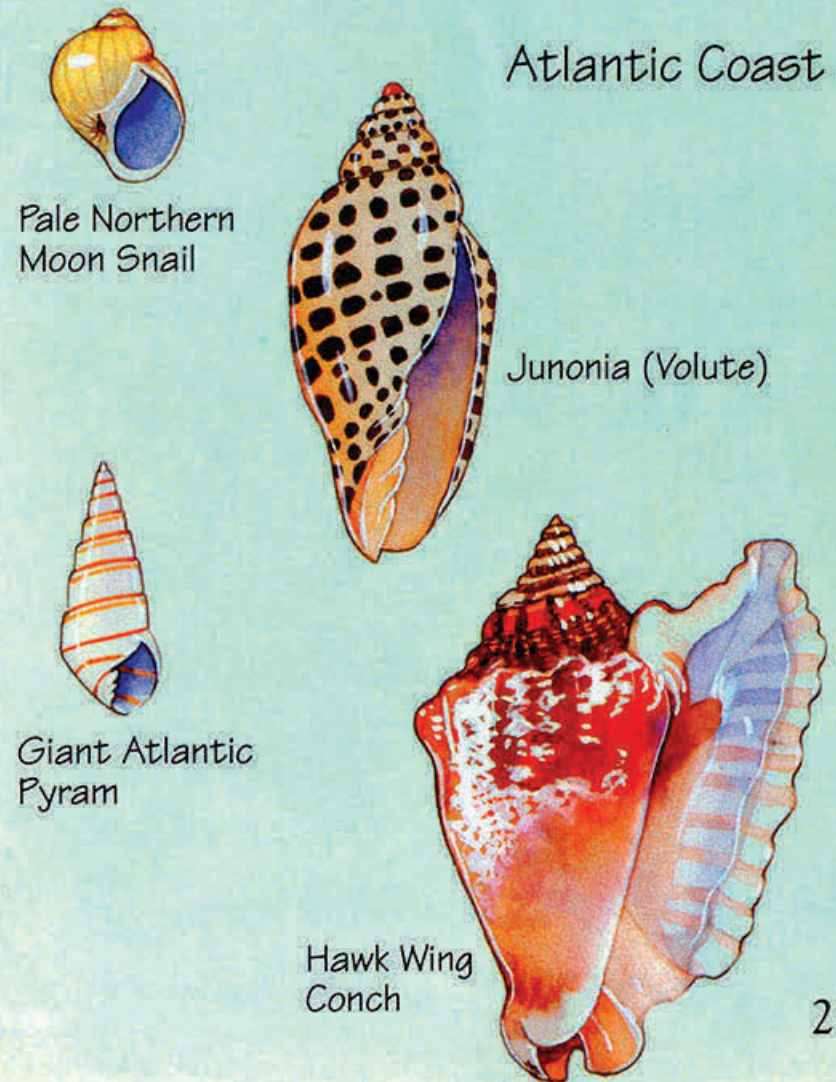


Whelks and conchs are types of snails that are found only by the sea. Here are some different kinds of sea-snail shells.

Pacific Coast



Atlantic Coast





Have you ever seen a snail shell walking along on crab legs?

A hermit crab has hard claws in front, but the back end of its body has a soft shell. Its shell is too soft to keep it safe from enemies.

A hermit crab lives in an empty snail shell.

After a while the hermit crab grows too big for his shell. So he looks for a bigger one. Some are too big. Some are too small. Finally he finds one he likes. He throws away the old shell and crawls into the new one.

Now the new shell is his home. The snail shell helps keep him safe.





clam shell
outside



clam shell
inside



clam shell
hinge



oyster shell
outside



oyster shell
inside

You can look for clam and oyster shells at the beach, too. Clams and oysters are animals.

They have no legs. They do not have heads or tails. Their bodies are soft. But they are animals.

Clams and oysters grow two hard shells. The top shell and bottom shell look almost alike. The two shells are connected by a hinge. Scallops also have two shells. Here are some different kinds of scallop shells.

Lion's Paw Scallop



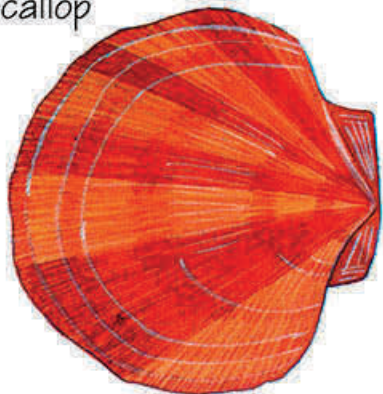
Zigzag Scallop



Ravenel's Scallop



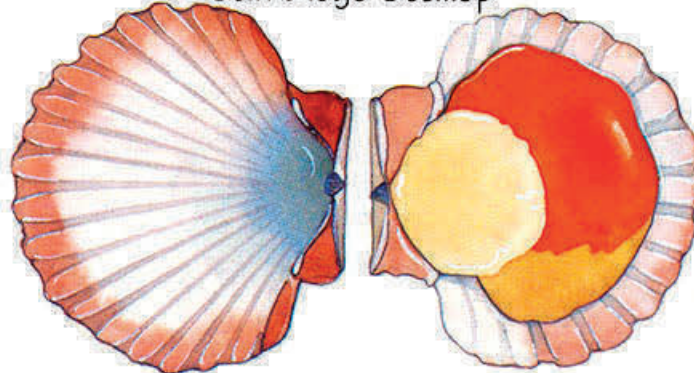
Atlantic Deep-sea Scallop



Giant Pacific Scallop

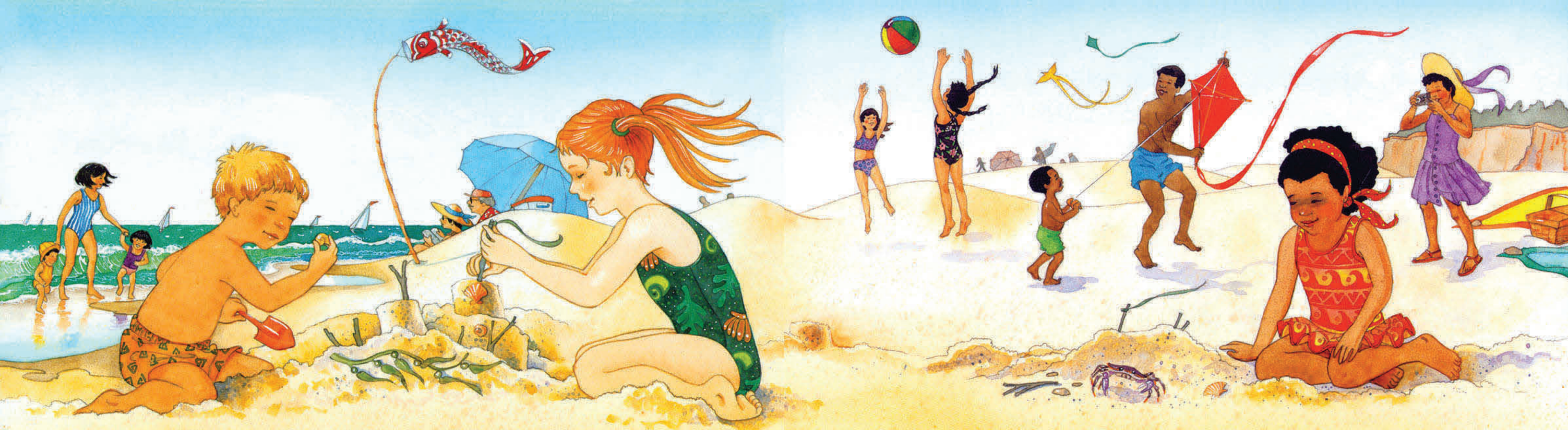


San Diego Scallop



Most clams and oysters hardly move at all. They open up their shells to take in food and water. They close their shells tightly when enemies are around.

Some scallops can swim. A scallop does not swim like a fish, though. First it opens its two shells. Then it snaps them together quickly. This gets the scallop where it wants to go.



When you find a shell, carefully look inside.
It will probably be empty. If a shell is empty, it
may mean the animal has died. Or, it has outgrown
the shell and left it behind.

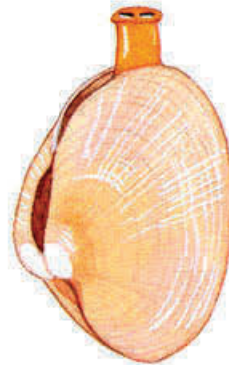
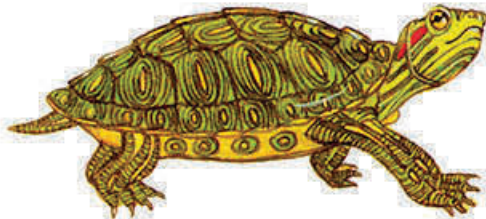
If the animal is at home, you can watch it for a
while. See if you can tell how it eats. How does it
move? What does it do when it feels frightened?

When you go, leave the animal where you found it. Animals are happiest in their natural surroundings. If a shell is empty, you can take it home with you.*



*If you are looking at shells in a state or national park, be sure to ask a ranger or game warden before you take any shells from the park.

Try to find as many different kinds of shells as you can. Whether the shells you find are big or small, plain or fancy—remember, a shell is someone's home.



What makes a shell like a house?

A house is a home for you, a nest is a home for a bird, and a cave is a home for a bear. But for some animals a shell is a home. Snails and turtles and crabs and clams all have shells that act as their homes and protect them from harm. In this book you'll learn all about these and other crustaceous creatures, for whom a shell is just the right sort of home.

Here are some other Let's-Read-and-Find-Out Science books you might enjoy:



Trace your own
Let's-Read-and-Find-Out
Science badge

Let's-Read-and-Find-Out Science books help satisfy a young child's curiosity about how the world works. Each book in the series introduces basic science concepts and builds on them using a step-by-step method, based on theories about how young children learn best.



Stage 1 books explain simple and easily observable science concepts for preschool- and kindergarten-age children.



Stage 2 books explore more challenging concepts for children in the primary grades and include hands-on activities that children can do themselves.

HarperTrophy®
Ages 4 to 8

US \$5.99 / \$7.99 CAN

ISBN 978-0-06-445124-6



9 780064 451246



Cover art © 1994 by Helen K. Davie