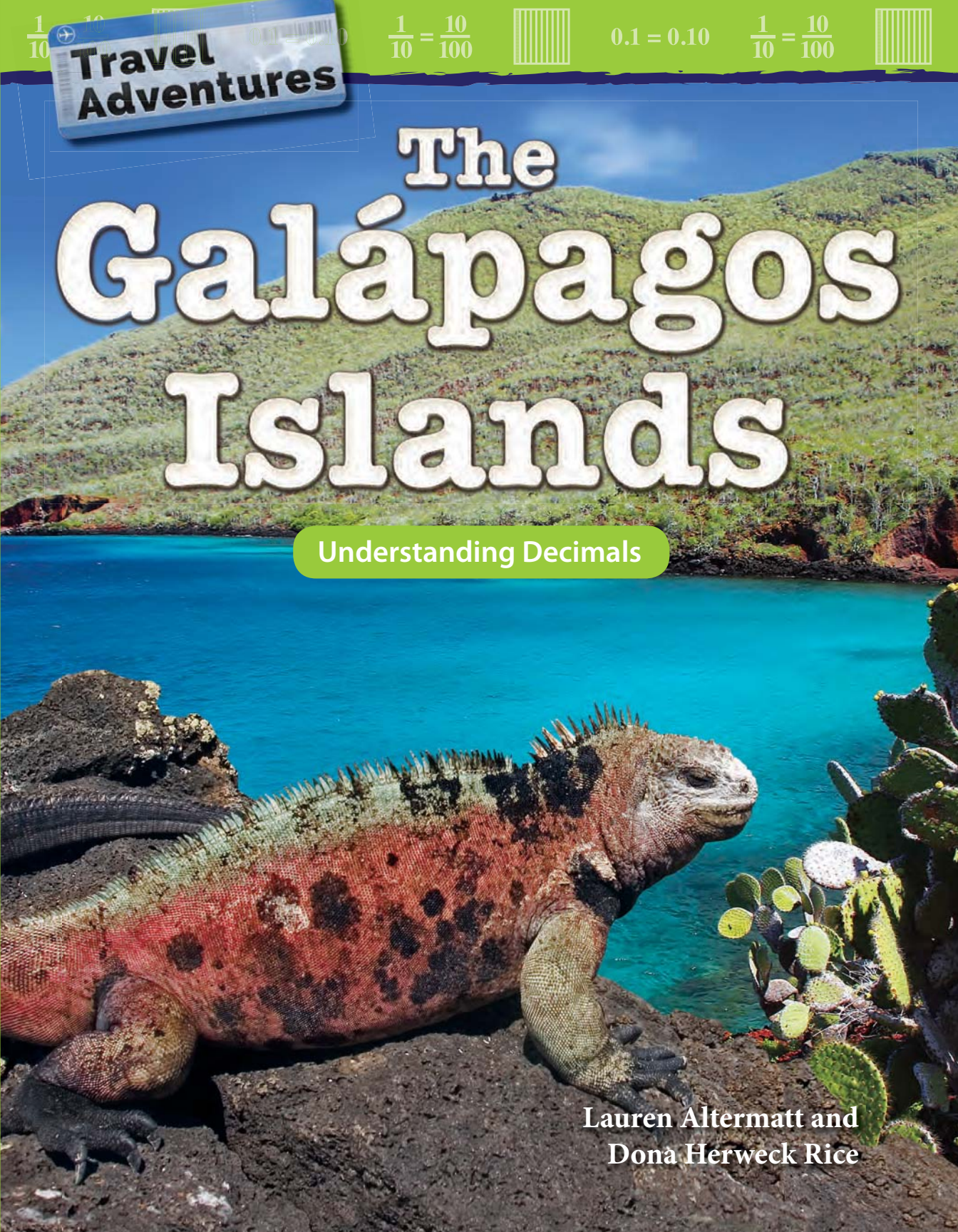

Travel Adventures
The Galápagos Islands
Understanding Decimals
Lauren Altermatt and Dona Herweck Rice

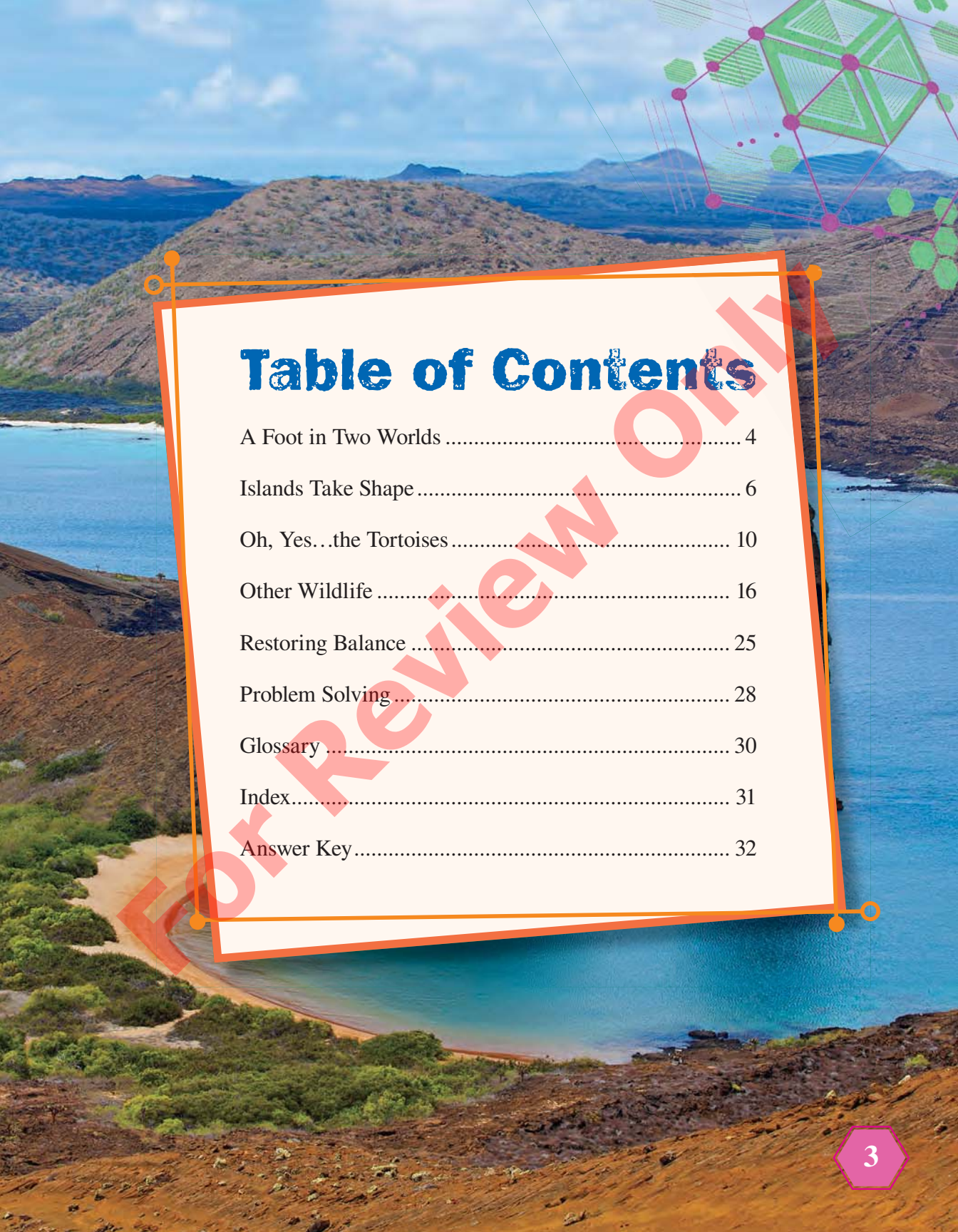


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For Review Only

A Foot in Two Worlds

Have you ever imagined ruling the world? Standing with a foot on each half of the planet might be a good place to start! If you go to the Galápagos Islands, that's exactly what you can do.

The Galápagos Islands run right through the middle of Earth. This is where the invisible line called the equator lies. Part of the island chain rests in the Northern **Hemisphere**. The other part stretches into the Southern Hemisphere. You can go to the islands and stand with a foot in each half of the planet!

But that's not the only way these islands have a foot in two worlds. They are also part of an old world and a new world. The natural world of the islands is an ancient one. It is rich in color and wildlife. The islands are also part of the modern world of tourism and **resources**. This is a world in which people in fishing and farming **industries** compete to make their livings. They need the resources the islands offer. Striking a healthy balance can be as challenging as bringing two worlds together!



For Review Only

Let's Explore Math

Sea cucumber fishing is an important industry on the Galápagos Islands. Imagine that the crew of a fishing boat catches 108 sea cucumbers. The crew of a different fishing boat catches 89 sea cucumbers. How is the value of the digit 8 different in each number?



For Preview Only



satellite view of the Galápagos Islands

For Review Only

Islands Take Shape

There is no place on Earth like the Galápagos Islands. Made of about 20 main islands, they are like a living museum. Unusual animals thrive. Lush and diverse plants make the **archipelago** (ahr-kuh-PEH-luh-goh) their home. Currents from three oceans meet there. Scientists say this helps to create the variety of sea life that lives on the islands. The islands also mark the spot where three of Earth's **tectonic** plates meet. This helped to create the islands themselves.

The Galápagos Islands are found in the Pacific Ocean. They are strung like beads in the sea, far from the mainland. They are part of Ecuador, which is about 620 miles (1,000 kilometers) away.

Isabela is the largest of the islands. It was named for the queen of Spain. It makes up more than half of the island chain's total landmass. Isabela is still growing. In fact, new islands are always being formed. Older islands move farther and farther away from the hotspot that forms them all. The oldest islands began to take shape millions of years ago. Now, many have vanished below the ocean's surface.

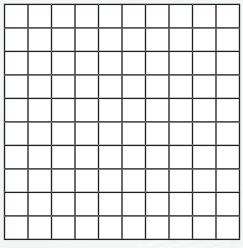


Let's Explore Math

Isabela makes up about 0.75 of the total landmass of the Galápagos Islands.

1. Color a hundredths grid to show 0.75.
2. In 0.75, what is the value of the digit 7? What is the value of the digit 5? Use the hundredths grid to help you.

Hundredths Grid



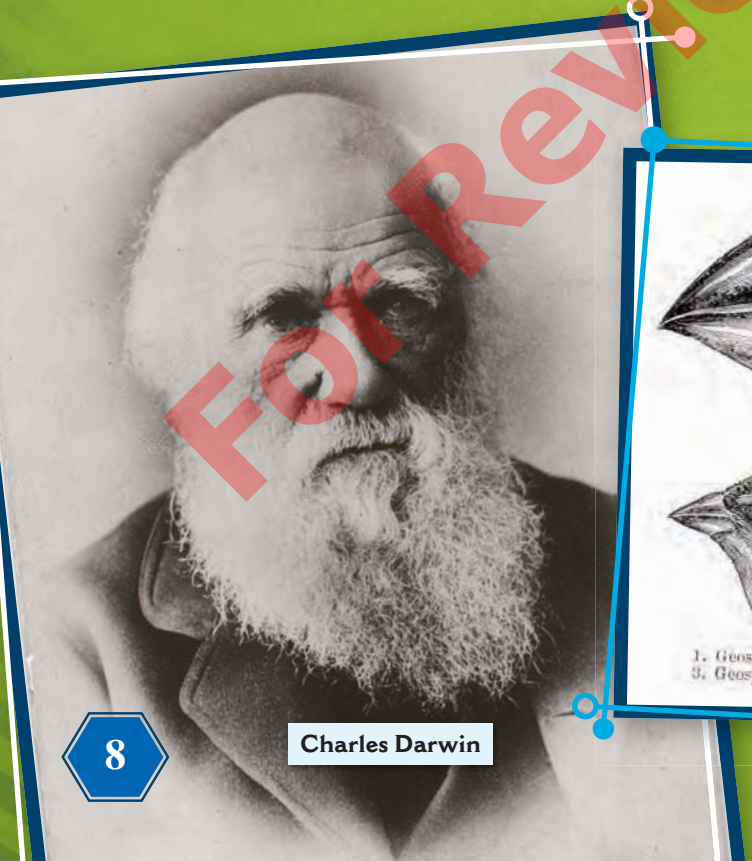
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Change

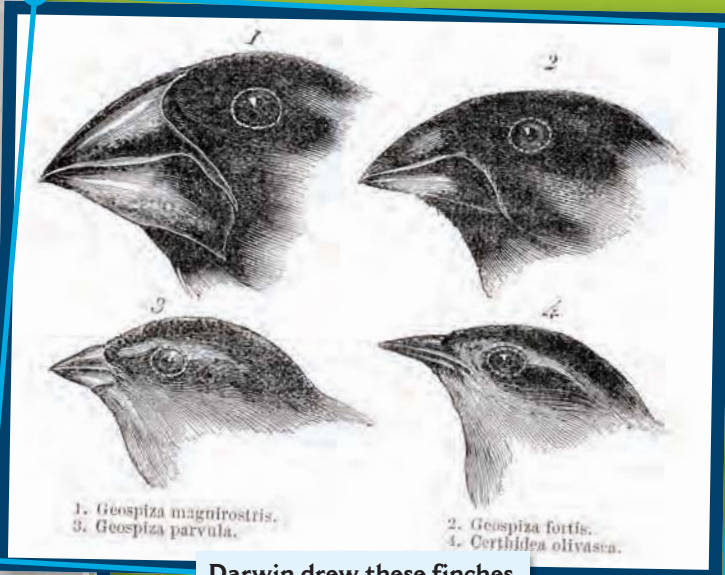
The changing shape of the islands is like the changing plant and animal life there—all have evolved over time. Famed scientist Charles Darwin visited the islands in the 1830s. What he saw helped to form his theory of evolution. It had a big effect on how scientists see the growth and change of living things. Darwin said that life **adapts** to its environment. Living things change over time to survive. Adaptations that are most **viable** help things thrive. This idea is also called "survival of the fittest." It means that things most suited to survive will do just that. Things that don't adapt die out over time.

Part of the appeal of the islands is the number of species found there. The climate and resources make the islands an ideal place for them to prosper. Such a wealth of things to see and study remains a big draw for scientists today. In fact, the islands are mainly set aside to be studied and **preserved**. They are some of the most protected lands in all the world.

For Review Only



Charles Darwin



Darwin drew these finches and their beaks in 1889.



Sally Lightfoot crab



sea lion



marine iguana

For Review Only

Math Talk

1. How are 10^3, $10 \times 10 \times 10$, and 1,000 related?
2. How is whole number place value similar to decimal place value? How is it different?
3. Monica is reading about lava lizard hatchlings. One egg is 3.9 centimeters long and another is 3.09 centimeters long. Monica says, "Those two eggs are the same length." Do you agree with her? Why or why not?
4. How are the digits to the left of the decimal point different from the digits to the right of the decimal point?
5. Patrick says, "To multiply with powers of 10, I just move the decimal." His math teacher will only let him do this after he proves why his procedure works. Why does his strategy work?
6. How might scientists use decimals when studying animals in the Galápagos Islands?

For Review Only