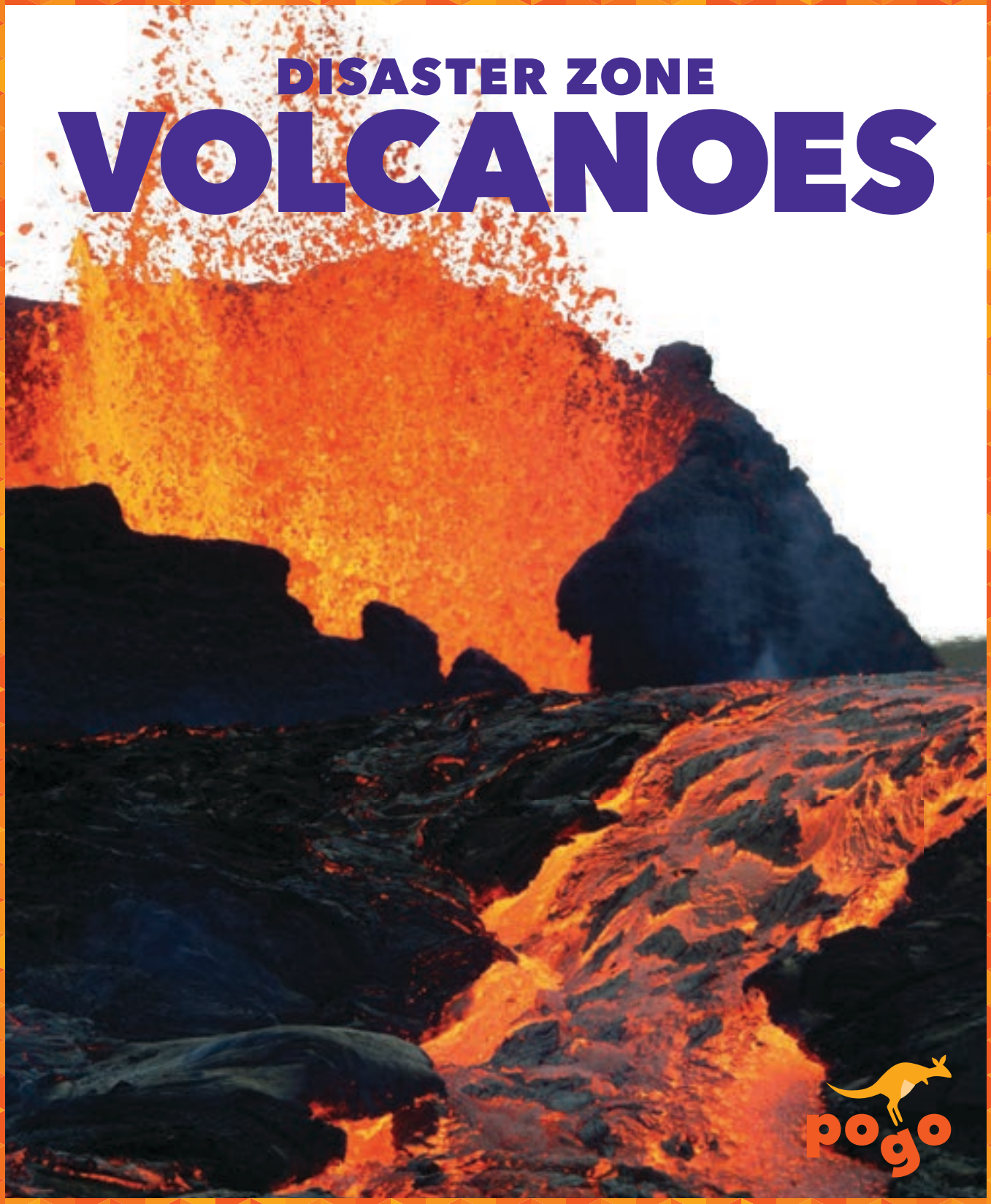
DISASTER ZONE

VOLCANOES



pogo

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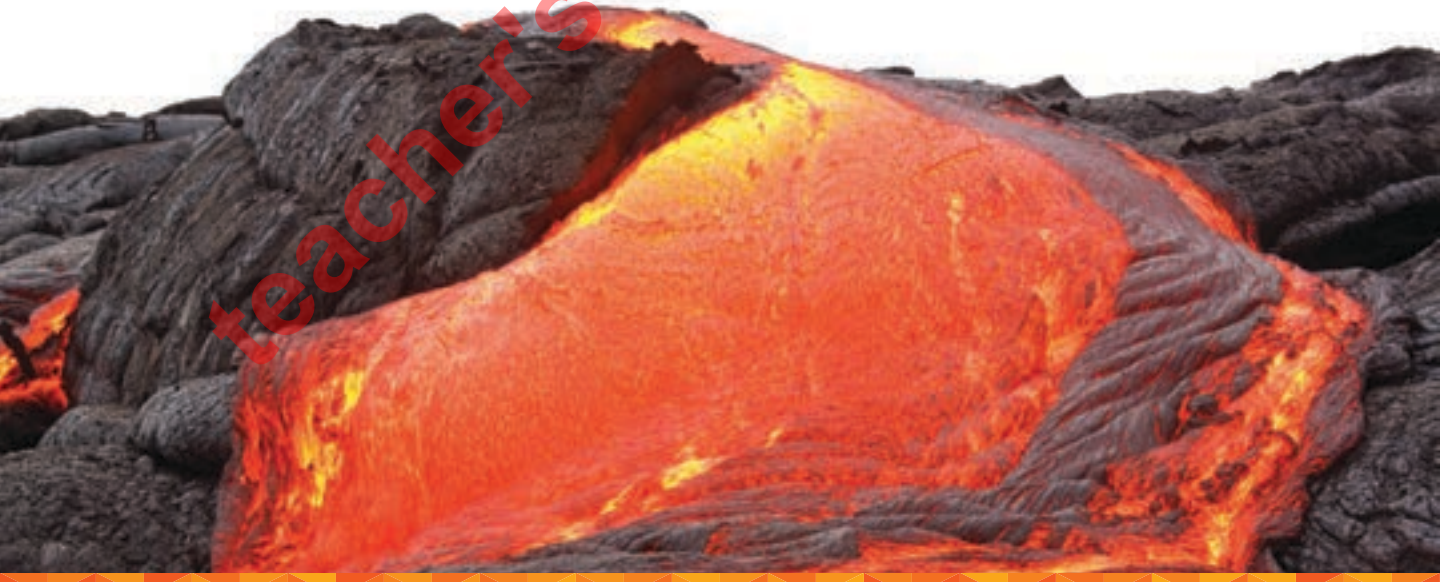
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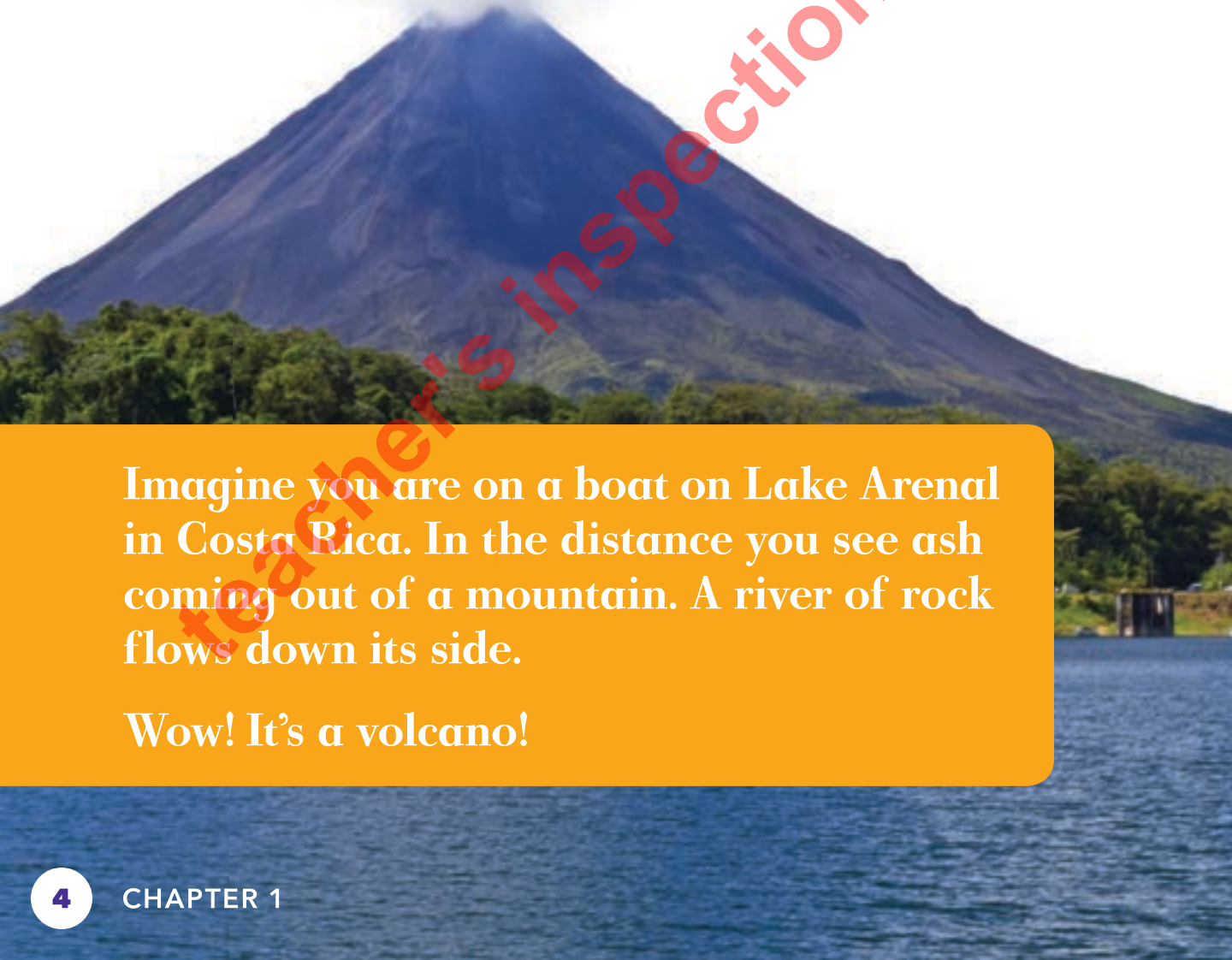
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CHAPTER 1

WHAT IS A VOLCANO?



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Imagine you are on a boat on Lake Arenal in Costa Rica. In the distance you see ash coming out of a mountain. A river of rock flows down its side.

Wow! It's a volcano!



Volcanoes are **vents** in the earth's surface. They let out gas, rocks, **lava**, and ash into the air.

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Some **eruptions** last for days, slowly oozing lava. Others are quick and violent. They throw lava and ash high in the air.

What causes a volcano to erupt?

DID YOU KNOW?

The Arenal volcano was one of the most active in the world. It erupted almost daily for 80 years. It has been **dormant** since 2010. Scientists say it can wake up at any time.

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The earth's **crust** is made up of plates. They fit together like a puzzle. The plates move on a bed of hot, liquid rock. They bump against each other.

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ACTIVITIES & TOOLS

TRY THIS!

VOLCANO IN A BOTTLE



What You Need:

- glue
- large sheet of cardboard
- 2 plastic bottles
- 6 cups (1.4 liters) of flour
- 2 cups (.5 l) of salt
- ½ cup (120 milliliters) of vinegar
- 3 drops dish soap
- 3 drops red and/or orange food coloring
- paint and paintbrush
- 3 tbsp. (45 ml) baking soda

1. **Glue the bottom of a plastic bottle to the middle of the cardboard.**
2. **Mix the flour and salt with one cup of water to form a clay.**
3. **Pack the wet clay around the bottle to make a cone shape.**
4. **Let the clay dry for 24 hours, and then paint it to look like a volcano.**
5. **When the paint is dry, combine the vinegar, dish soap, and food coloring in the second plastic bottle, and shake to mix.**
6. **Pour the mixture into your volcano.**
7. **Add the baking soda and watch your volcano erupt!**

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GLOSSARY

acid rain: Rain that has been made acidic by pollution or environmental causes.

composite volcano: A type of volcano with tall, steep sides.

crust: The top layer of the earth.

dormant: Inactive or "sleeping;" volcanoes that are dormant may erupt again in the future.

eruption: A forceful explosion of rocks, hot ashes, and lava.

famine: A period during which food is scarce and people starve.

Indonesia: A country in Southeast Asia made up of thousands of islands.

lava: Hot, liquid rock that comes out of a volcano.

magma: Hot, liquid rock inside the earth.

shield volcano: A type of volcano that has short, wide sides.

vents: Holes in the earth's crust.

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