

DISASTER ZONE **EARTHQUAKES**



TABLE OF CONTENTS

CHAPTER 1

It's an Earthquake! 4

CHAPTER 2

Deadly Earthquakes 12

CHAPTER 3

Staying Safe 18

ACTIVITIES & TOOLS

Try This! 22

Glossary 23

Index 24

To Learn More 24



CHAPTER 1

IT'S AN EARTHQUAKE!

Imagine you are on vacation in San Francisco. You are at a restaurant having lunch.

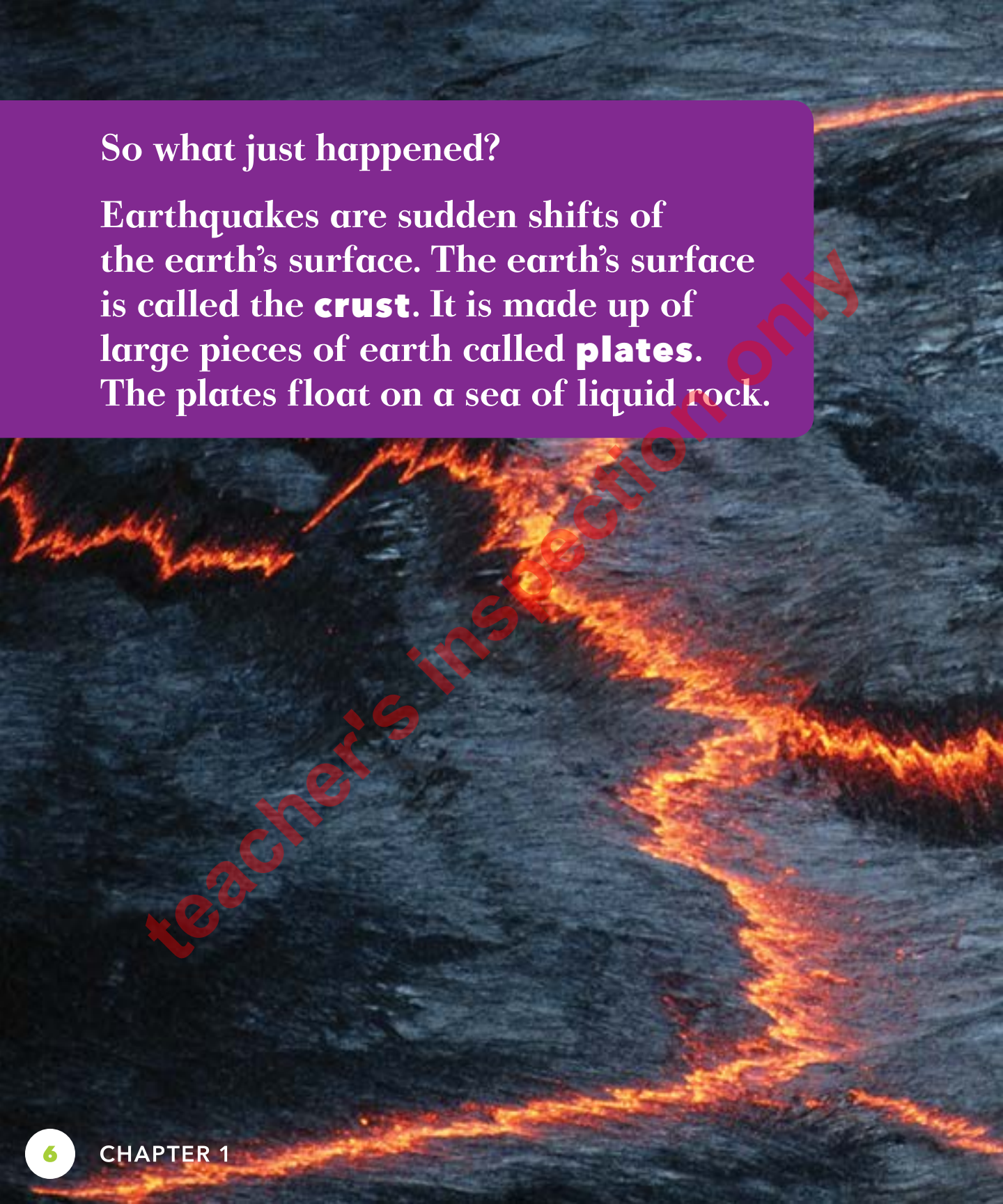




All of a sudden, the ground starts to shake. Dishes fall to the floor. Wow! What is going on?

It's an earthquake!

Luckily, it's a small one. After a few **tremors**, things go back to normal.

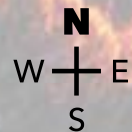
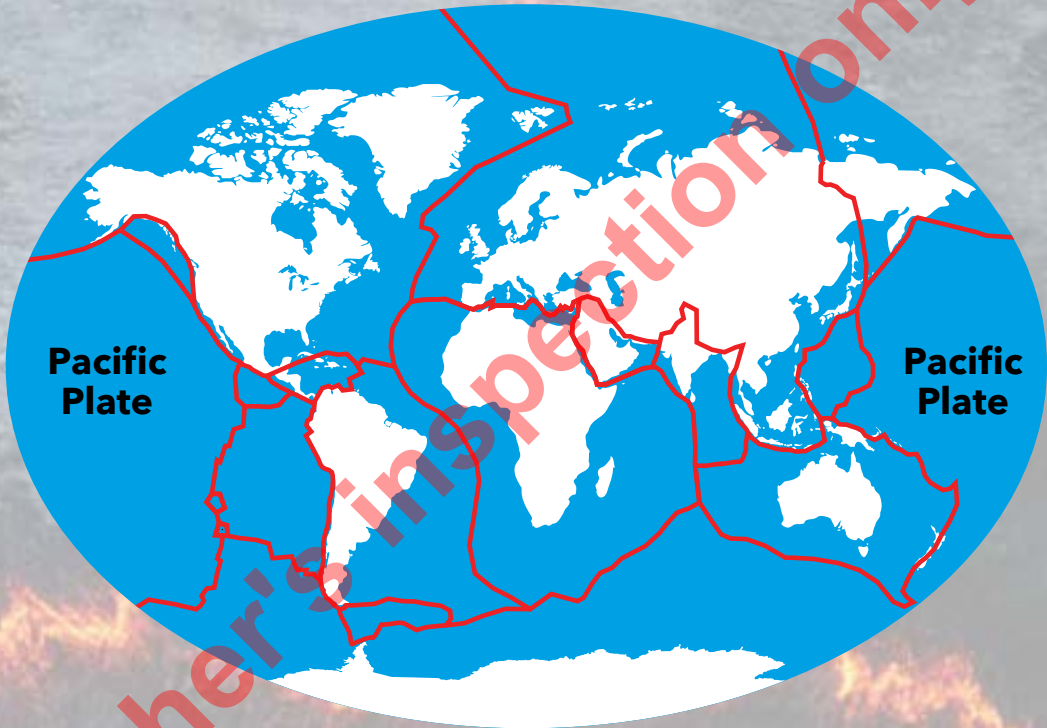


So what just happened?

Earthquakes are sudden shifts of the earth's surface. The earth's surface is called the **crust**. It is made up of large pieces of earth called **plates**. The plates float on a sea of liquid rock.

WHERE ARE THEY?

There are seven major plates. The area around the Pacific Plate has the most earthquakes.







Imagine a bowl of milk covered in corn flakes. Move the bowl a little. What happens to the flakes? They bump against one another. Plates bump against each other in much the same way.

These bumps cause the crust to crack. The cracking sends out energy that we feel as an earthquake.

DID YOU KNOW?

Sometimes a quake cracks the crust under the ocean. This can create a giant wave called a **tsunami**.



ACTIVITIES & TOOLS

TRY THIS!

CRACK THE CRUST

What You Need:

- A thin wood stick

- 1 Hold the stick horizontally with your hands on each end.
- 2 Bend down on both ends until the stick breaks in the middle.

The wood stick is like the earth's crust. When the stick breaks, it releases the stress you have put on it, similar to the way moving plates put pressure on the earth's crust, causing it to crack.



TRY THIS!

CORN FLAKE PLATES

What You Need:

- A bowl, corn flakes, milk

- 1 Put milk and corn flakes in a bowl.
- 2 Gently jostle the bowl.

The corn flakes are like the earth's plates. When you move the bowl, the corn flakes rub up and bump into each other, just like the earth's plates do.



GLOSSARY

crust: The outer layer of the earth.

fault lines: Crack in the earth's crust.

intensity: How much damage an earthquake causes.

magnitude: How powerful an earthquake is.

Mercalli scale: The scale that assesses the intensity of an earthquake.

plates: Large pieces of crust that float on a sea of liquid rock.

Richter scale: The scale that assesses the magnitude of an earthquake.

Ring of Fire: The region bordering the Pacific Ocean where there are a lot of volcanoes and earthquakes.

tremors: The shaking movements on the ground caused by an earthquake.

tsunami: A giant wave caused by underwater movement of Earth's crust.

