Weekly Concept Earth Changes

Essential Question

How does the Earth change?

Go Digital!

Michael Melford/Riser/Getty Images

Our Changing Earth

Did you know that the Earth is always changing? The water in this canyon is slowly washing away the rocks. Water can have powerful properties.

- Water can wash away rocks and land in rivers and waterfalls.
- Water can wash away sand at the beach.

Talk About It

Talk with a partner about what could cause the Earth to change quickly. Write your ideas on the web.

Vocabulary

Use the picture and sentence to learn each word.

active

The **active** volcano was about to erupt.

What do you like to do when you want to be active?

earth

We dug into the **earth** to plant some lettuce.

What else can you plant in the earth?

explode

Fireworks make bright colors and loud noises as they **explode**.

Name something else that can explode.

island

We visited an **island** on our vacation.

What are some things you can find on an island?

local

Grandpa and I went to a **local** park.

Tell about some places that are local to your house.

properties

I looked at the rock to learn about its **properties**.

Tell about some properties of a pencil.

solid

Wood is **solid**, but water and air are not.

How can you tell if something is solid?

steep

This hill is **steep** and hard to climb.

What else can be steep?

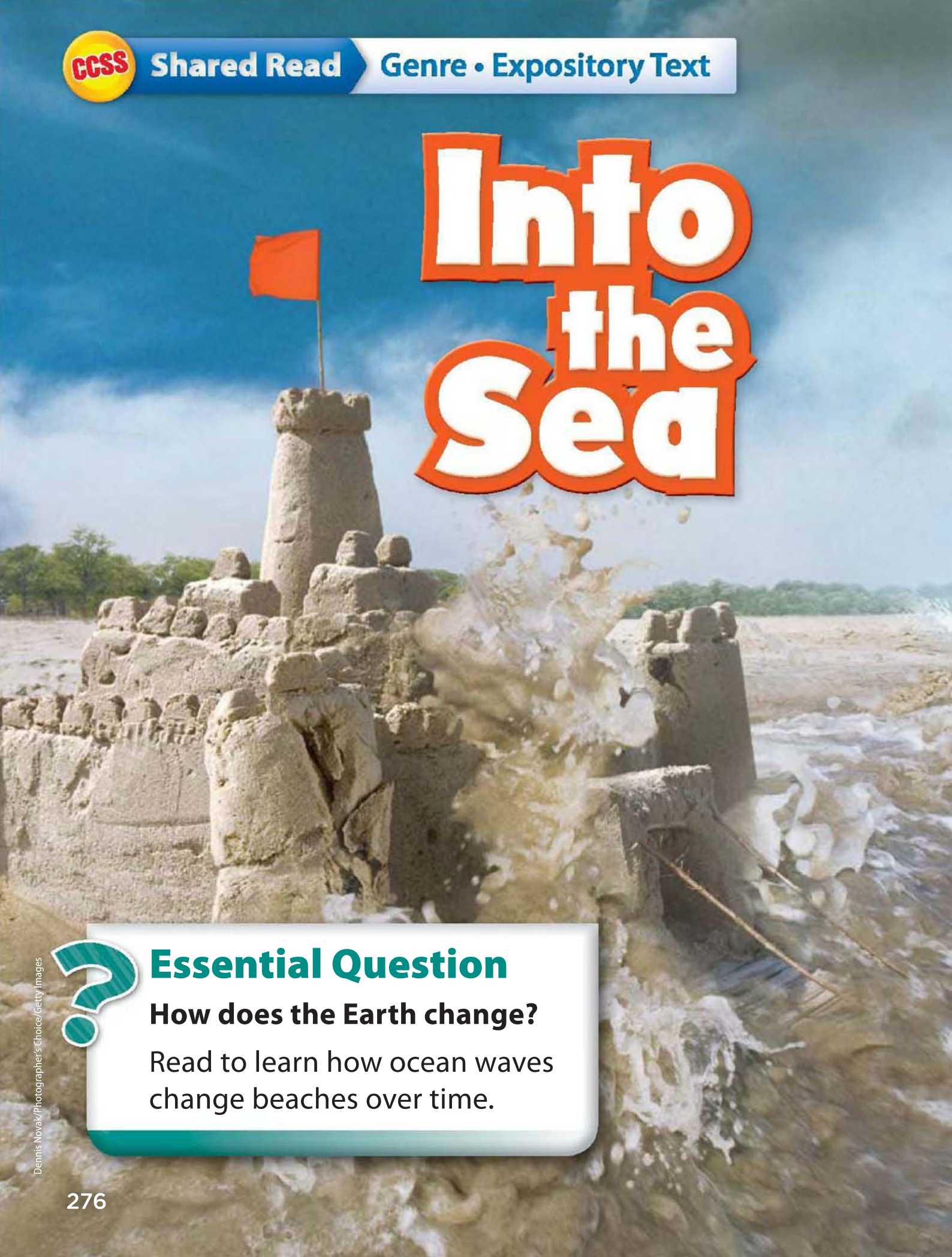
Your Turn

Pick three words. Write three questions for your partner to answer.

Go Digital! *Use the online visual glossary*

CCSS Shared Read Genre • Expository Text

Into the Sea



Essential Question

How does the Earth change?

Read to learn how ocean waves change beaches over time.

Dennis Novak/Photographer's Choice/Getty Images

What Is Erosion?

Have you ever made a sand castle at the beach? You must pick a good spot for it. If it is too close to the water, waves will quickly wash it away.

Ocean waves and wind can also wash away land. They can change the shape of an **island**, which is land circled by water. When wind and water change the shape of **Earth**, it is called **erosion**.

Waves are the biggest cause of erosion at the beach. Ocean waves are always **active** and moving onto the shore. They carry the sand away bit by bit.

Strong waves are one of the **properties** of big storms. These waves **explode** as they crash onto the beach. Storm waves can move a lot of sand quickly.

Erosion of Beaches

Some people build houses near the ocean. Waves take away the sand between the houses and the sea. As the beach disappears, the water gets closer to houses and other **solid** buildings on the beach. Some buildings can even be washed away.

Erosion of Rocks

Erosion also happens on **steep**, rocky cliffs or sharp slopes. First, waves smash into the bottom of the cliffs. Then they carry away tiny pieces of rock. Over time, many small pieces of rock wash away from the bottom of the cliff. This makes the top of the cliff weak. The cliff can crumble and fall into the sea.

Stopping Erosion

Some **local** communities work to stop erosion to nearby beaches. These towns have built **sea walls** of large boulders or rocks.

The rocks are placed in a row in the sea. When waves hit the sea wall, they slow down. Then the waves can't pull sand away.

Some towns make rules about buildings on the beach. New buildings must be far from the water. Then they won't wash away like a sand castle.

Make Connections

How does beach erosion change the Earth? **ESSENTIAL QUESTION**

How do the changes from erosion in this selection compare to other changes in nature you have seen? **TEXT TO SELF**

Presselect/Alamy