

McGraw-Hill Reading  
**WonderWorks**

# Interactive Worktext



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Education





# Talk About It

Weekly Concept **Patterns**



## Essential Question

Where can you find patterns in nature?



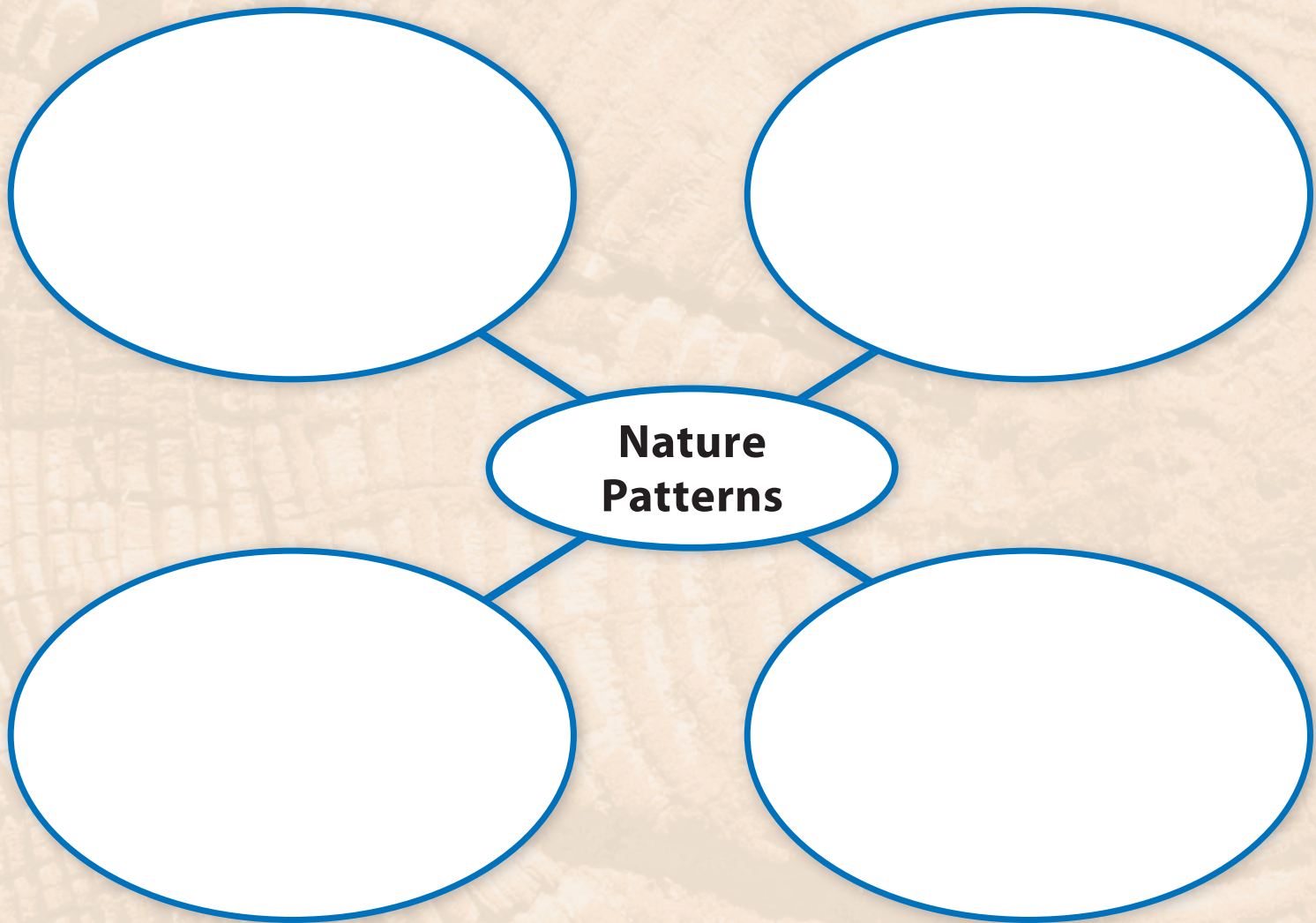
**Go Digital!**







Write words that describe the patterns you see in the photograph.



Describe a pattern you have seen in nature.  
Use some of the words you wrote above.



Work with a partner to complete each activity.

**1 visible**

Look around the room. Name three things that are *visible* in the classroom.

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**2 moisture**

Circle a place listed below that has very little *moisture*.

a lake      a desert      a rainforest

**3 particles**

Write a word to describe the size of a *particle*.

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**4 erode**

Which phrase means the opposite of *erode*?

rub off      build up      wear down

**5 formation**

- ▶ Underline the base word in *formation*.
- ▶ Circle the suffix *-ation*.
- ▶ What does *formation* mean?

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**6 repetition**

Write your name in a way that shows *repetition*.

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**7 contact**

- ▶ Point to something you are in *contact* with.
- ▶ Write a word or phrase that has a similar meaning as *contact*.

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## 8 structure

Draw a picture of a *structure* you would see at a playground.



## High-Utility Words

### ► Prepositions

Prepositions are words that show direction or location.

Circle the prepositions in the passage.

Jack and his dad went camping. They woke early and hiked toward a cave.

When they were near the cave, they saw the cave was very dark.

They went through the opening. Suddenly, they heard something fly over them. "Bats!" shouted Jack. They both rushed from the cave. When they got home, they told Jack's mom about their adventure.



[illegible]

## Genre • Expository Text

# Patterns of Change



## Where can you find patterns in nature?

Read about patterns you can find in rocks and rock formations.



## Rocks Take Shape

“Solid as a rock” is a saying used to describe something that doesn’t change. But, in fact, rocks do change. Water, wind, and temperature slowly turn one type of rock into another type of rock. These forces shape landscapes and sketch designs on rock. Patterns can form. Patterns are **visible** in rocks as small as pebbles and in the walls of the vast Grand Canyon.

The photograph across these pages shows one pattern that can be seen in a landscape. This **structure** of rock is known as the Wave **formation**. It was created by sand. The sand turned to rock over a long period of time.

## Igneous Rocks

Igneous rocks are one type of rock. They are formed from hot, liquid rock called magma. Magma exists far below Earth’s surface. Magma sometimes escapes to the surface through cracks, such as the mouths of volcanoes. When magma reaches the surface, it is called lava.

Lava is made of minerals. The minerals in the lava cool, and they form crystals. Eventually, the hot liquid hardens into a solid rock.

Igneous rocks can have different **textures** and colors. Granite is a kind of igneous rock that feels rough and can be many colors. Obsidian is another kind of igneous rock. This kind of rock is smooth and often black.



Granite



Obsidian

## Text Evidence

### 1 Comprehension

#### Main Idea and Key Details

Reread “Rocks Take Shape.”

**Underline** key details that support the idea that rocks change.

### 2 Organization ACT

What is the order of events that turns lava into solid rock? **Write “1”** next to the text that tells what happens first. **Write “2”** next to the text that tells what happens next. What happens last?

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### 3 Expand Vocabulary

A **texture** is the way something feels when you touch it. Find words in the last paragraph that describe *textures*. List them.

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# Text Evidence

## 1 Expand Vocabulary

A **material** is something that can be seen and felt. It can be made up of one thing or many things. **Circle** the name of a *material* that is made up of bones and shells.

## 2 Comprehension

### Main Idea and Key Details

Reread the third paragraph.

**Underline** key details. What is the main idea of the paragraph?

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## 3 Organization ACT

How do sedimentary rocks become layers of strata? **Write "1"** next to the text that tells what happens first. **Write "2"** next to the text that tells what happens next. What happens after the layers build up?

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## Sedimentary Rocks

Igneous rocks do not stay the same forever. Water and wind **erode** them, carrying away **particles** of broken rock. These tiny bits of rock may be carried to a beach, riverbank, or desert.

Over time, the particles collect. They form layers. The weight of the top layer pushes down on bottom layers. It squeezes out air or any drops of **moisture** in **contact** with the particles. Pressed together, the particles eventually stick to each other. They form a new **material** called sedimentary rock. This kind of rock can be made up of bits of rock, sand, bones, shells, and plants.

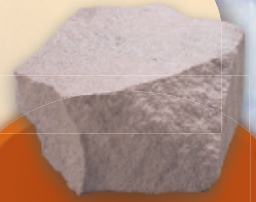
There are different kinds of sedimentary rock. Sandstone is formed from sand. Limestone is made up of bones and shells.

## Rock Formations

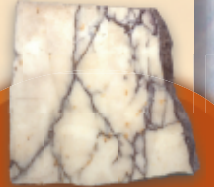
Over time, a layer of one kind of sedimentary rock can form. Another layer of a different kind of rock can form on top of it.

Many layers of different kinds of sedimentary rock can build up. Each layer will press down on the ones below it. The oldest layer will be at the bottom. The youngest layer will be at the top. Layers of sedimentary rock are called *strata*.

Each layer can have its own texture and colors. These layers together can create patterns of thick lines in a rock. The lines can be straight or wavy. The patterns can be dazzling.



Limestone



Marble



Sandstone

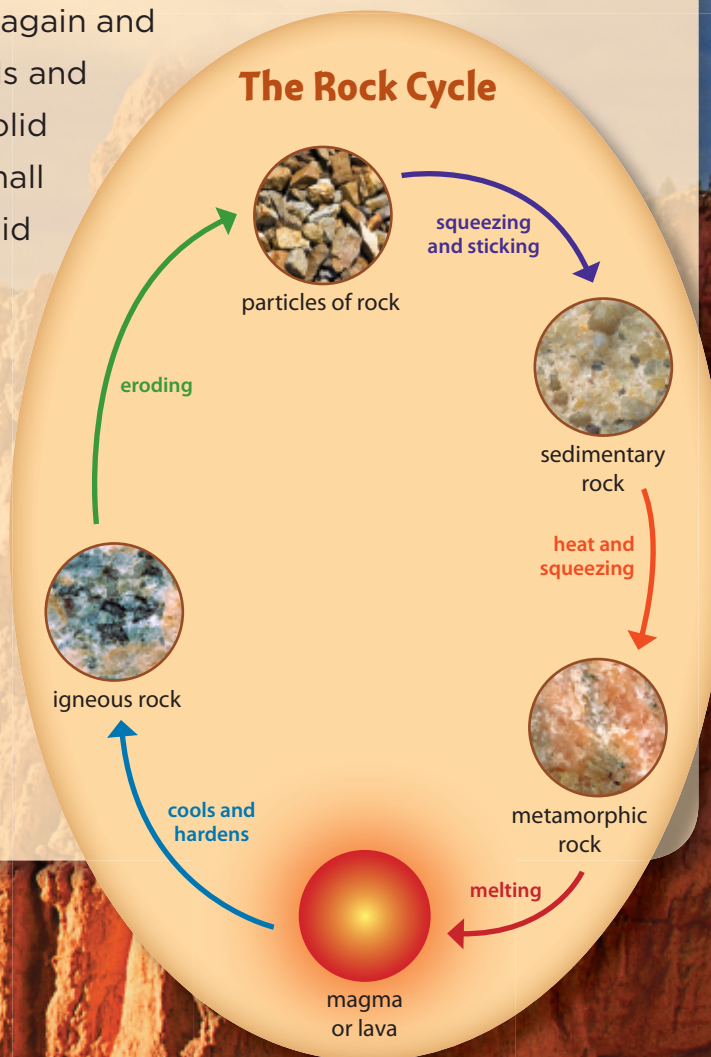


# The Rock Cycle

As layers build up, the layers of rock below are pressed down. They are pushed deeper and deeper. They can go so deep that they are heated by magma. The weight of the layers and the heat cause metamorphic rock to form. Eventually, the heat will cause some metamorphic rock to melt. Then this rock becomes magma.

As the magma cools, it turns back into igneous rock. The **repetition** of this **process** is called the rock cycle. The rock cycle is a pattern. It repeats again and again. Liquid rock cools and becomes solid rock. Solid rock builds up from small particles into cliffs. Solid rock changes back to liquid rock, and the cycle starts over.

**Rocks change by cooling, eroding, squeezing, and heating. Igneous rock, sedimentary rock, and metamorphic rock can all be broken into particles.**



## Text Evidence

### 1 Comprehension

#### Main Idea and Key Details

Reread the first paragraph.

**Underline** three key details that describe how metamorphic rock is formed.

### 2 Comprehension

#### Main Idea and Key Details

Reread the second paragraph.

**Draw a box** around key details. What is the main idea of this paragraph?

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### 3 Expand Vocabulary

A **process** is a set of steps or changes that makes something else. What is one step in the *process* of the rock cycle?

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# Respond to Reading



## Discuss

Work with a partner. Use the discussion starters to answer the questions below about “Patterns of Change.” Write the page numbers where you found text evidence.

### ? Questions

### Discussion Starters

### Text Evidence

1 What pattern is found in the way sedimentary rock and strata form?

- ▶ Small particles of rock are like strata because both build up and form...
- ▶ Sedimentary rock and strata both form by...
- ▶ I noticed that...

Page(s): \_\_\_\_\_

2 What pattern can be seen in layers of sedimentary rock?

- ▶ Each layer of sedimentary rock has...
- ▶ I read that layers together look like...
- ▶ From the photographs, I can see...

Page(s): \_\_\_\_\_

3 How is the rock cycle a pattern?

- ▶ The rock cycle is a pattern because...
- ▶ Liquid rock cools and becomes...
- ▶ After solid rock is pushed down below Earth's surface, it becomes...

Page(s): \_\_\_\_\_





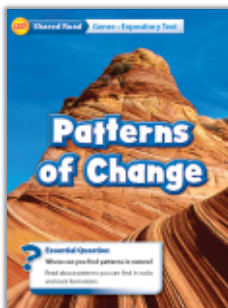


A circular inset image showing a pile of broken, light-colored rocks or debris. The rocks are irregular in shape and size, with some showing a yellowish-tan hue and others appearing more greyish. They are scattered together, filling the circular frame. The background of the slide features a diagonal orange and white pattern.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines, typical of notebook paper. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.



# Write About Reading



Shared Read

## Topic Sentence

**Circle** the topic sentence. What is Tisha going to write about?

## Evidence

**Draw a box** around the evidence that Tisha includes. What other information from "Patterns of Change" would you include?

## Concluding Statement

**Underline** the concluding statement. Why is this sentence a good wrap-up?

### Read an Analysis

**Main Idea and Key Details** Read Tisha's paragraph below about "Patterns of Change." She analyzed how the author used key details to explain the text's main idea.

### Student Model

- ☐ The author of "Patterns of Change" used key details to explain how rocks change over time. Magma is liquid rock. When magma cools, it becomes solid rock. Water and wind carry away particles of rock. Particles collect. They form layers. The layers press the particles together.
- ☐ This becomes sedimentary rock. Layers of sedimentary rock build up. They push down the bottom layers. Eventually rock at the bottom melts and becomes magma. All of these key details helped me understand that rocks change over time.
- ☐





paragraph about “Weather Patterns.” Review Chapter 1. Tell how the author used key details to explain the main idea of the chapter.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. In the bottom-left corner, there is a graphic element representing a folded piece of paper, showing a triangular flap and a shadow effect. The overall appearance is that of a clean, unused notebook page or a template for writing.

- ☐ Include the title of the text you read.
- ☐ Tell whether the author used key details.
- ☐ Tell the main idea that the details help explain.

- Give examples of key details in the chapter.
- Include only the most important details that explain the main idea.
- Restate details correctly.

- Restate how the details helped you understand the author's main idea.