

Faces™

Island Living

The idea of living on an island often evokes images of paradise; however, island life typically presents significant challenges to people and to land. This issue of FACES takes readers on a journey to several island nations to explore the beauty and vulnerability of these isolated landmasses.

CONVERSATION QUESTION

Why is island life unique?

TEACHING OBJECTIVES

- Students will learn how Singapore gained its water independence.
- Students will learn how volcanoes change the Earth's landscape.
- Students will learn about the remarkable island of Madagascar.
- Students will study how location impacts a region's resources.
- Students will use evidence to support a claim.
- Students will examine the physical and cultural characteristics of an island nation.
- Students will use a mathematical process to calculate differences in water usages.
- Students will study the current volcanic activity in Tonga.
- Students will create multimedia presentations.



In addition to supplemental materials focused on core Social Studies skills, this flexible teaching tool offers vocabulary-building activities, questions for discussion, and cross-curricular activities.

SELECTIONS

- **Quenching an Island's Thirst**
Expository Nonfiction, ~890L
- **How Volcanoes Rock Our World**
Expository Nonfiction, ~980L
- **Madagascar: The One-of-a-Kind Island**
Expository Nonfiction, ~960L

Quenching an Island's Thirst

pp. 8–11, Expository Nonfiction

Singaporeans found themselves living the ultimate irony: surrounded by water without a drop to drink. This article examines the island's unreliable water sources used in the past and its technologically advanced water systems of today.



RESOURCES

- Impact of Location: Water Woes

OBJECTIVES

- Students will learn how Singapore gained its water independence.
- Students will study how location impacts a region's resources.
- Students will use a mathematical process to calculate differences in water usages.

KEY VOCABULARY

- **reservoir (p. 10)** a usually artificial lake that is used to store a large supply of water for use in people's homes and businesses
- **groundwater (p. 10)** water found underground in the pores and cracks in soil and rock
- **drought (p. 10)** a long period of time during which there is very little or no precipitation

ENGAGE

Conversation Question: How is island life unique?

Display a map of Southeast Asia. Have students find the tiny island of Singapore, located off the southern tip of the Malay Peninsula. Then instruct students to create a T-chart with the words **ADVANTAGES** and **DISADVANTAGES** as column headings. Have students work in pairs to list the pros and cons of living on an island. Encourage them to consider all aspects of life. Discuss responses. Finally, tell students to return to their charts after reading to revise their lists.

INTRODUCE VOCABULARY

Post and review the three vocabulary words. Explain that all of these terms can be found on the first page of the article. Have students use the title and the vocabulary terms to predict the content of the article. Challenge students to write one super sentence using all three words.

READ & DISCUSS

Reinforce comprehension of the concepts presented in the article by using the following questions to direct discussion.

1. What were Singapore's two sources of water before the 1960s?
2. How did politics affect Malaysia's distribution of water?
3. How did Singaporeans develop their water sources?
4. In what ways did technology help to ensure a steady water supply for Singapore?
5. What did the government of Singapore do to tackle people's negative mindsets about reclaimed water?

CONCEPT/SKILL FOCUS: Impact of Location

INSTRUCT: Review the text and guide students to express that the article was written to teach readers about Singapore's troubles and triumphs concerning clean water supply. Tell the class that most small islands grapple with a fresh water shortage. Use the *Impact of Location: Water Woes* graphic organizer to explain how Singapore has addressed this issue throughout the years.

ASSESS: Have students discuss why most small islands will face similar issues regarding important resources. Review worksheet.

EXTEND

Mathematics Review the content of the article and discuss Singapore's water-shortage issues and remedies. Reread the following statement from page 12 to emphasize Singapore's dedication to conservation: "The average Singaporean uses about 37 gallons of water daily. That's roughly half the amount an average American uses." Have students calculate the difference in usage over the time period of one year. Discuss simple ways that Americans can conserve water on a daily basis.

Water Woes

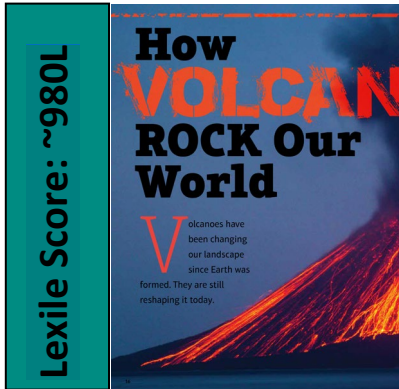
Impact of Location Consult the article to review how an island's water sources are impacted by its location. Complete the chart. Circle the methods that are being used today.

Water Source	How did it provide clean water?	Pros/Cons
Rain		
Malaysian Pipeline		
Desalination		
Reclamation		

How Volcanoes Rock Our World

pp. 16–19, Expository Nonfiction

Throughout the ages, volcanic eruptions have reshaped the landscape of our planet. Readers will study the destructive power and the beauty of these geological events.



RESOURCES

- **Supporting a Claim:** Rock On

OBJECTIVES

- Students will learn how volcanoes change the Earth's landscape.
- Students will use evidence to support a claim.
- Students will research the current volcanic activity in Tonga.

KEY VOCABULARY

- **lava** (p. 18) hot, liquefied rock that flows from a volcano
- **tsunami** (p. 18) a very high, very large ocean wave that is usually caused by an undersea earthquake or volcanic eruption
- **succession** (p. 19) the predictable process by which plants and wildlife colonize or develop on newly formed land

ENGAGE

Conversation Question: Why is island living unique?

Generate interest in the topic by having students join you in creating a volcanic explosion. **Materials:** Empty plastic bottle, funnel, vinegar, baking soda, clay, food coloring. **Procedure:** 1. Give each student a good amount of clay so they can work together to form a volcano shape around the empty bottle. 2. Use the funnel to put baking soda into the empty bottle (1–5 tbs depending on bottle size). 3. Mix food coloring and two cups of vinegar together. 4. Pour this mixture inside the bottle. 4. Stand back! Discuss the scientific reactions that caused the explosion.

INTRODUCE VOCABULARY

Post the key words and discuss the definitions. Then display the following prompts and have students discuss responses with a partner.

- What substances, other than **lava**, are emitted from a volcano?
- What are the effects of a **tsunami** that reaches a coastal town?
- What wildlife might appear during an early stage of **succession** on a volcanic island?

READ & DISCUSS

Read the article aloud with the class. Have students reread the text in small groups to answer the questions below. Discuss responses.

1. Name and define the two main categories of islands.
2. How do volcanic eruptions have both short- and long-term effects?
3. What aspects of a volcano does the author refer to as beautiful?
4. How do volcanoes under the ocean cause the birth of an island?
5. Locate the three volcano puns in the article. Why do you think the author chose to include them?

CONCEPT/SKILL FOCUS: Supporting Claims

INSTRUCT: This article presents readers with detailed information about the ongoing role of volcanoes in reshaping the earth. Distribute the *Supporting a Claim: Rock On* graphic organizer. Tell students that they will be reviewing the article and highlighting sentences that provide evidence to support each of the claims listed on the organizer. Then they will summarize this evidence in the organizer. Remind students to cite information/details using page numbers.

ASSESS: Collect worksheets to assess students' abilities to locate evidence.

EXTEND

Current Events Remind students that the article describes the birth of a volcanic island (Hunga Tonga-Hunga Ha'apai) in the South Pacific Ocean in 2015. Point out that life began to flourish on this island very quickly. Inform students that since the printing of this article, there has been a devastating eruption in the same region. Have students use periodicals and the internet to learn more about this eruption and its effects on Hunga Tonga-Hunga Ha'apai.

Rock On

Supporting a Claim Gather evidence from the article to support each claim. Cite your findings by using page numbers.

Claim: Volcanoes are constantly reshaping the Earth.

Supporting evidence (p. _____)

Claim: Climate patterns after a huge eruption can affect the entire world.

Supporting evidence (p. _____)

Claim: Volcanic ash in the air is dangerous.

Supporting evidence (p. _____)

Madagascar:

The One-of-a-Kind Island

pp. 24–25, Expository Nonfiction

Madagascar is rich in history, diversity, and culture. Readers will journey to this nature-abundant and vulnerable island.



RESOURCES

- **Examine Characteristics:** Island of Interest

OBJECTIVES

- Students will learn about the remarkable island of Madagascar.
- Students will examine the physical and cultural characteristics of a region.
- Students will create multimedia presentations.

KEY VOCABULARY

- **vulnerable (p. 25)** a species that is categorized as vulnerable is in danger of becoming extinct
- **remedy (p. 25)** a medicine or treatment that relieves pain or cures a usually minor illness
- **staple (p. 25)** an important food that is eaten very often

ENGAGE

Conversation Question: Why is island life unique?

Construct a K-W-L chart (Know—Want to Know—Learned) to record students’ prior knowledge about Madagascar (K) and what they want to know (W) about this island nation. Return to the chart after students have read the article and completed the lesson to fill in the last column. If there are remaining curiosities about Madagascar, allow the class to use books and the internet to find more information.

INTRODUCE VOCABULARY

Post and discuss the key vocabulary words and definitions. For each word, have students write a sentence that uses it correctly. Have students share their sentences with a partner. Emphasize the key words as they are revealed in the article.

READ & DISCUSS

Preview the questions below. Then read the article aloud, pausing for discussion when answers to the questions are revealed.

1. From which two continents did Madagascar break off?
2. Explain why Madagascar is a unique mixture of cultures.
3. Why is Madagascar sometimes referred to as the “eighth continent”?
4. What is the significance of the Toliara coral reef?

CONCEPT/SKILL FOCUS: Examine Characteristics

INSTRUCT: The article presents the reader with detailed information regarding the physical and cultural characteristics of Madagascar. Remind students that when studying a new land, it is important to consider many facets of life in that region. Distribute the *Examine Characteristics: Island of Interest* graphic organizer. Tell students they will be using information from the article to complete the chart.

ASSESS: Review the chart. Have groups of students use resources to find additional facts about a particular element and share it with the class.

EXTEND

Economics Read aloud this final sentence from the article: “Although Madagascar is rich in animal species, it is one of the poorest countries in the world.” Have students conduct research to learn about the factors that contribute to Madagascar’s economic situation and the solutions that are being used to address these factors. Have students work in groups to create multimedia presentations showing their research.

Island of Interest

Examine Characteristics Consult the article to explain how each of the elements listed below contributes to Madagascar’s uniqueness.

Element	Defining Characteristics
Geographical Features	
History	
Culture/Language	
Wildlife	
Food	
Pastimes	

Choose one element from above and use online resources to learn additional facts. Share with the class.