

Faces™

Shapes

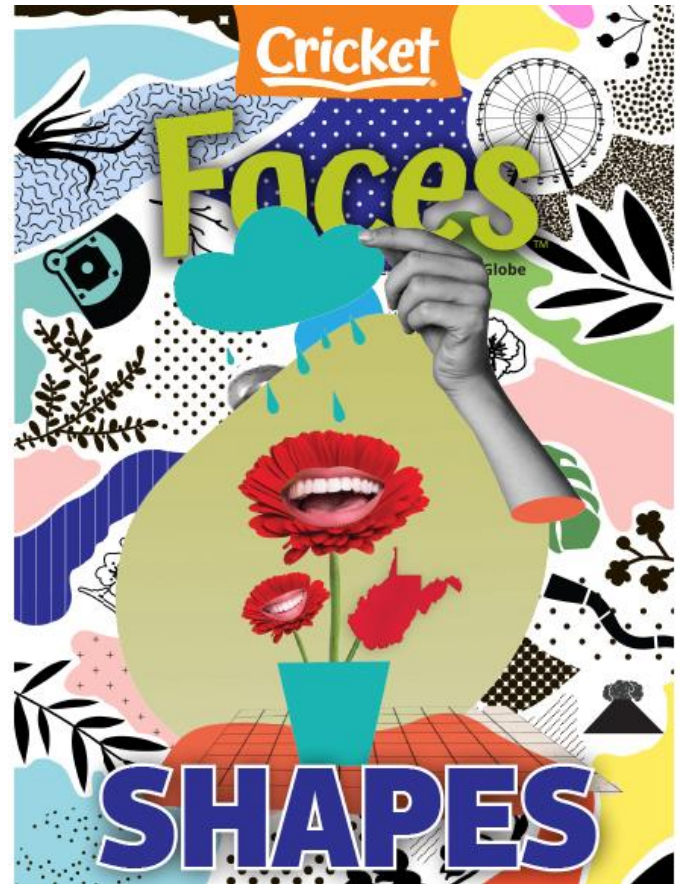
The world is alive with bright colors, interesting sounds, and amazing shapes. This issue of FACES magazine explores the configurations of massive human-made objects and examines perfectly formed natural topography.

CONVERSATION QUESTION

How do shapes influence the physical world?

TEACHING OBJECTIVES

- Students will learn how the borders of West Virginia were formed.
- Students will learn the importance of a community's public square.
- Students will learn about the Mayon Volcano's balanced, precise conical shape.
- Students will use a map to explain relationships between geographical locations.
- Students will identify the cultural significance of public places.
- Students will distinguish between fact and opinion.
- Students will research the impact of the Three-Fifths Compromise.
- Students will locate and tag geographical locations.
- Students will use a mathematical formula to determine the volume of a cone.



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.

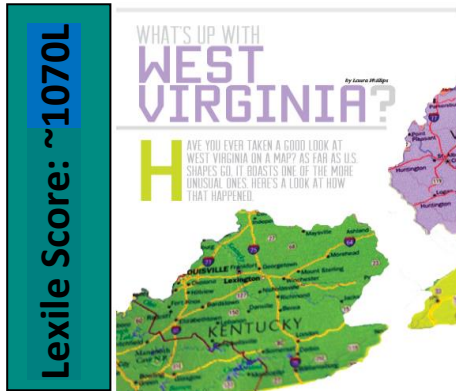
SELECTIONS

- **What's Up with West Virginia?**
Expository Nonfiction, ~1070L
- **Meet Me at the Square**
Expository Nonfiction, ~1160L
- **Mayon Volcano: A Perfect Cone**
Expository Nonfiction, ~1090L

What's Up with West Virginia?

pp. 8–11, Expository Nonfiction

One of the more unusual shapes on the American map, the state of West Virginia boasts irregular boundaries with jagged borders. This article will teach readers how the land in the southeastern United States was defined.



RESOURCES

- Using Maps: Shaping Up

OBJECTIVES

- Students will learn how the borders of West Virginia were formed.
- Students will use a map to explain relationships between geographical locations.
- Students will research the impact of the Three-Fifths Compromise.

KEY VOCABULARY

- encompassed** (p. 9) included something as a part
- territory** (p. 9) an area of land that belongs to or is controlled by a government
- opposition** (p. 11) actions or opinions that show that you disagree with or disapprove of someone or something

ENGAGE

Conversation Question: How do shapes influence the physical world?

Display a map of the United States and have students notice how the states are shaped. Collect student observations and list on the board. Ask students to identify states that have noticeably irregular borders. Pose this question: *What factors determine the boundaries of each state?* Revisit this discussion with students after they read the article.

INTRODUCE VOCABULARY

Review the key terms and definitions with the class. Guide students to notice that each word belongs in a different part of the alphabet. (Beginning: A–H, Middle: I–P, End: Q–Z) Have them write these headings at the top of their paper and write each vocabulary word in the correct column. As a post-reading activity, have students add other theme-related words from the article to their list in the correct columns.

READ & DISCUSS

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

- How did Virginia's domain change following the end of the French and Indian War?
- What did Congress encourage the states with expansive frontier lands to do after the Revolutionary War?
- What are the jagged northern and western boundaries of West Virginia defined by?
- Why was the population in the Allegheny Mountains area lower than in the farmlands to the east?
- Explain how West Virginia became a state in 1863.

CONCEPT/SKILL FOCUS: Using Maps

INSTRUCT: Guide students to acknowledge the importance of cardinal directions (N, S, E, W) and city and capital markings when trying to understand the location of various places on a map. Review map skills. Distribute the *Using Maps: Shaping Up* worksheet. Students will be using the map on pages 8–9 and the article text to complete the questions.

ASSESS: Have students complete the worksheet independently.

EXTEND

Social Studies: Pages 10–11 of the article explain that representation in the Virginia legislature was based on a census that counted slaves as three-fifths of a person. The Three-Fifths Compromise was reached among state delegates during the 1787 Constitutional Convention. Have students use books and the internet to gather basic information such as: What was the main purpose of the Three-Fifths Compromise? Which group benefited most? Why was it unfair? How did it impact politics in the 19th century? When was it repealed?

Shaping Up

Using Maps Use the map of West Virginia on pages 8–9 to answer the questions below. You will need to use the compass rose to state cardinal directions and city markings to locate the capital cities.



Cardinal Directions: North, South, East, West

Part I: The compass rose above displays cardinal directions. Use the map of West Virginia and the compass rose to provide the answers below. (north, south, east, west)

1. Clarksburg is directly _____ of Weston.
2. Weston is _____ of Buckhannon.
3. St. Albans is _____ of Parkersburg.
4. Summersville is _____ of Charleston.
5. Huntington is _____ of Point Pleasant.

Part II: Use the map of West Virginia and details in the article to help you answer the questions below.

6. The capital city of West Virginia is _____.
7. Two of the rivers in West Virginia are _____ and _____.
8. The first name considered for West Virginia was _____.
9. Two states that border West Virginia are _____ and _____.
10. West Virginia became a state in the year _____.

***Challenge:** Create five additional map questions. You may use the states of Kentucky and Virginia as shown on pages 8 and 9. Trade questions with a partner and answer your partner's questions. Review answers together.

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Meet Me at the Square

pp. 12–15, Expository Nonfiction

A public square is a large area where people can gather to participate in outdoor events. Readers will learn how public squares around the world have hosted concerts, rallies, games, and protests, and are the site of many historical events and famous landmarks.



RESOURCES

- Cultural Significance of Places: Fairs and Squares

OBJECTIVES

- Students will learn about the importance of a community's public square.
- Students will identify the cultural significance of public places.
- Students will locate and tag geographical locations.

KEY VOCABULARY

- **fortress** (p. 13) a large building or complex of buildings used as a military stronghold
- **ornate** (p. 14) elaborately decorated
- **drawing room** (p. 15) a room in a large private house in which guests can be received and entertained

ENGAGE

Conversation Question: How do shapes influence the physical world?

Ask students where special events in their town or city take place. Inform students that a public square is an open public area in a city or town where people gather. The best public squares are always easily accessible by foot. Have students discuss what other criteria might be beneficial for a successful public square.

INTRODUCE VOCABULARY

Post and review the three vocabulary words and definitions. Allow students to roll a dice for vocabulary activities.

- 1 = Use the word in a sentence.
- 2 = Draw a picture of the word.
- 3 = List two antonyms for the word.
- 4 = List two synonyms for the word.
- 5 = Break the word into syllables and list the part of speech.
- 6 = Make a connection between the word and a book/movie or your life.

READ & DISCUSS

Pose the following questions to prompt meaningful discussion:

1. What is the purpose of a public square?
2. Why do tourists like to visit the public square of a particular city?
3. Where is The Crossroads of the World and what is it famous for?
4. Explain how public squares can often be associated with serious events, as well as celebrations.
5. Why did Napoleon once call Venice's Piazza San Marco "the drawing room of Europe"?

SKILL FOCUS: Cultural Significance of Places

INSTRUCT: The article presents the reader with detailed information regarding the significance of public squares across the globe. Distribute the *Cultural Significance of Places: Fairs and Squares* graphic organizer. Tell students they will use information from the article to record each specific public square's location, description, and events/landmarks.

ASSESS: Have the class peer-review the worksheet in small groups. Then have the groups discuss which public square from the article they would most like to visit and why.

EXTEND

Geography: Have students review the article and highlight all of the geographical locations. Supply pairs of students with a map of the world and have them label the countries and the corresponding public squares. Challenge teams to use books and the internet to research and label three more countries and their notable public squares. Students should tag the location with the name of the square and a brief description that includes any historical events and landmarks.

Fairs and Squares

Cultural Significance of Places Use information from the article to complete the chart below. Include details.

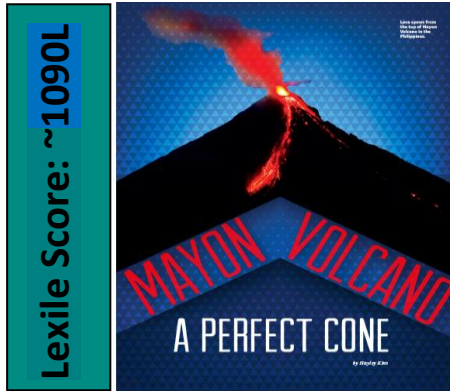
Public Square	Location	Description	Events/Landmarks
Red Square			
Grand-Place			
Piazza Navona			
Tiananmen Square			

Mayon Volcano:

A Perfect Cone

pp. 20–23, Expository Nonfiction

Mayon Volcano sits towering above southeastern Luzon in the Philippines. Students will learn how this perfectly conical, rumbling volcano has created a rich ecosystem and a resilient population.



RESOURCES

- Distinguishing Fact and Opinion: Magnificent Mayon

OBJECTIVES

- Students will learn about the Mayon Volcano's balanced, precise conical shape.
- Students will distinguish between fact and opinion.
- Students will use a mathematical formula to determine the volume of a cone.

KEY VOCABULARY

- **deities** (p. 21) gods or goddesses
- **emitted** (p. 22) released or discharged something
- **incomparable** (p. 23) better than any other; having no equal

ENGAGE

Conversation Question: How do shapes influence the physical world?

Remind students that an object has symmetry if it can be divided into two identical halves. Have students look around the classroom and name objects that have symmetry. Next, ask students where symmetry can be found in nature (butterfly wings, leaves, spider webs, etc.). Surprise students with the grandest example of all: the Mayon Volcano. Distribute the article for reading.

INTRODUCE VOCABULARY

Display the following statements and underline the key vocabulary words. Review how to infer the meanings of new terms by using context clues and background knowledge. Then have partners work together to determine the meaning of each term. Reveal definitions.

1. The temple was built for religious activities, such as praying to deities.
2. The smoke emitted by the burning toast made the fire alarm go off.
3. Canned fruit can never match the incomparable taste of fresh fruit.

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. What caused Mayon Volcano's perfectly smooth symmetry?
2. What is the spiritual significance of the Mayon Volcano for the Bicolano people?
3. Why is the land around Mayon Volcano ideal for farming?
4. What destruction did the eruption of 1814 cause?
5. How have people and the government prepared for future eruptions?

CONCEPT/SKILL FOCUS: Fact and Opinion

INSTRUCT: Review with the class that it is important to be able to make distinctions between facts and opinions in order to determine the credibility of information. (**facts:** can be proven, true for everyone; **opinions:** can't be proven, personal judgment) Instruct students to review the article and to classify each statement on the *Distinguishing Fact and Opinion: Magnificent Mayon* worksheet as a fact or an opinion.

ASSESS: After reviewing answers, have students choose one fact and one opinion from the worksheet and explain WHY it is a fact or opinion.

EXTEND

Mathematics: A cone is a three-dimensional figure, meaning it is possible to calculate the volume, as the figure has a length (base), a width, and a height. The formula for determining the volume of a cone is: $V = \frac{1}{3}h\pi r^2$. Have students calculate the volume of a cone using the following information: **height**=12 inches, **radius**=5 inches (**Answer:** 314.16 cubic inches)

Magnificent Mayon

Distinguishing Fact and Opinion Locate and underline each of the sentences below in the article. Then mark each statement as FACT (**F**) or OPINION (**O**). *Helpful Hint:* Facts can be proven. Opinions are personal judgments.

- _____ 1. Most consider the 1814 eruption of Mayon Volcano to be the most destructive in history.
- _____ 2. Mayon is a stratovolcano, a volcano that forms from the buildup of slow-flowing lava.
- _____ 3. Mayon and its surrounding national park have been nominated to become a World Heritage Site.
- _____ 4. It is said that the mountain mysteriously formed over Magayon's burial place.
- _____ 5. PHIVOLCS determine the volcano's alert level, from 0 to level 5.
- _____ 6. A photo taken of Mayon's ash cloud during a 2018 eruption depicts two tragic figures embracing.
- _____ 7. Mayon Volcano's aesthetic value as a perfect cone-shaped volcano is incomparable.
- _____ 8. Only the bell tower of the Cagsawa church survived the 1814 eruption at Mayon.
- _____ 9. The Mayon Volcano is one of the most active in the world and has erupted more than 60 times since 1616.
- _____ 10. Mayon's conical beauty stands above the rest.

