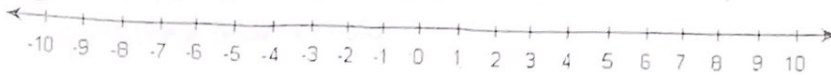


# NTI Day 1, Math, Grade 7,

## Topic: Integers



Examples:

Addition	Subtraction	Multiplication	Division
<p><i>Same signs:</i> Add &amp; keep sign <math>+6 + +5 = +11</math> <math>-8 + -2 = -10</math></p>	<p><i>Keep-Change-Opposite (Add the opposite)</i> <math>+10 - -8 = +10 + +8 = 18</math> <math>-5 - +12 = -5 + -12 = -17</math> <math>-20 - -8 = -20 + +8 = -12</math></p>	<p><i>Same signs:</i> Positive product <math>(+7)(+8) = +56</math> <math>(-2)(-6) = +12</math></p>	<p><i>Same signs:</i> Positive quotient <math>+42 \div +6 = +7</math> <math>-24 \div -8 = +3</math></p>
<p><i>Different signs:</i> Subtract &amp; take sign of larger value <math>+9 + -5 = +4</math> <math>-6 + +1 = -5</math></p>		<p><i>Different signs:</i> Negative product <math>(+9)(-9) = -81</math> <math>(-5)(+4) = -20</math></p>	<p><i>Different signs:</i> Negative quotient <math>+56 \div -7 = -8</math> <math>-50 \div +2 = -25</math></p>

Recall the order of operations:

- 1 - Parentheses (or grouping symbols)
- 2 - Exponents
- 3 - Multiplication / Division (left to right)
- 4 - Addition / Subtraction (left to right)

Find each answer.

1.  $-12 + -7 =$  \_\_\_\_\_

2.  $-25 + 18 =$  \_\_\_\_\_

3.  $2 + -25 =$  \_\_\_\_\_

4.  $-28 - -8 =$  \_\_\_\_\_

5.  $11 - -5 =$  \_\_\_\_\_

6.  $-21 - 4 =$  \_\_\_\_\_

7.  $(-9)(-8) =$  \_\_\_\_\_

8.  $(2)(-12) =$  \_\_\_\_\_

9.  $-35 \div -7 =$  \_\_\_\_\_

10.  $-48 \div +8 =$  \_\_\_\_\_

11.  $(-2)(+6)(-5) =$  \_\_\_\_\_

12.  $-30 + 24 \div 6 \cdot -2 =$  \_\_\_\_\_

13.  $16 \div 4 + 2 \cdot -8 =$  \_\_\_\_\_

14.  $-3(1-8) + 2^3 =$  \_\_\_\_\_

\*\* Practice your INTEGER RULES using websites and on-line games!! You really MUST know these!! \*\*

# Part A

Co-Curricular

# DAY 1

Return to Art, P.E.,  
Computers, Practical  
Living teacher.

Get a clean sheet of paper. Sketch the image large using the steps provided. Add a background. Shade the artwork or color it.

100pts

- Uses most of the paper
- Effort
- Colored or shaded
- Background

Part B Co-Curricular DAY 1

Return to Art,  
PE., Computers,  
Practical Living  
teacher

1

2

3

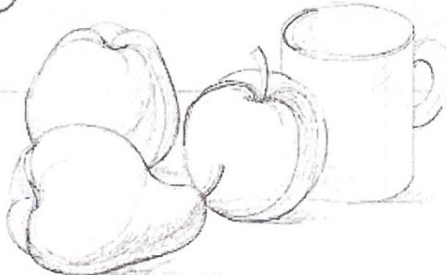
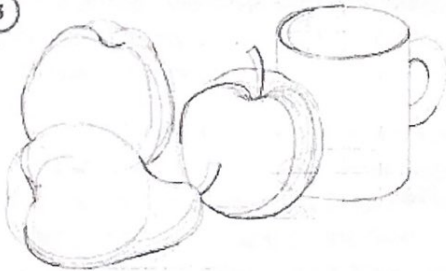
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7

8



## The Run [The Run Series, #1]

by ReadWorks



Dennis and Mac had been driving for almost a week, and they hadn't seen a single soul. They were worried. When they'd left the ranch, they'd thought maybe they'd run into someone, another survivor. But there was no one. The roads were almost empty. There was the occasional abandoned car, but that was it. They drove mostly on highways, to make better time. Mac wondered if they might not have better luck on the smaller country roads, but Dennis wouldn't have it. Those roads had curves and were thick with trees. There was no way of seeing danger coming. If someone wanted to spring a surprise on you, you wouldn't know it until it was too late.

When the plague came, Dennis and Mac had been working as ranch hands on a cattle farm. Both had just finished their first year of college. Dennis went to school on the East Coast, Mac on the West. They found that they were very similar people. They both studied hard and read a lot of books. But they also both liked being outdoors. At the end of a good day, they came home smelling of sweat and dirt. They quickly became friends.

The ranch was a small, family-run operation, with only about 50 head of cattle. The family that ran it, the Greersons, would advertise in college newspapers in the spring. There were plenty of ranch hands in the area who needed work, but Bucky Greerson felt city kids could benefit from an exposure to country life. Young men would apply, and then the Greersons would hire about a half-dozen hands every spring to help them run cattle. It was tough work, but Dennis and Mac felt lucky to be picked.

The farm didn't have a TV or the Internet or a telephone. As a result, the first they heard of the plague was on the radio. Every night, the ranch hands liked to gather in the mess hall and play cards. While they played, they listened to the radio. The ranch was so far up in the hills that the radio only got one station. At night they listened to the station's best DJ, Petey "The Muskrat" Coltrain, who spun old bluegrass records. Sometimes, between records, The Muskrat told stories. Dennis and Mac thought he was hilarious.

One night, though, The Muskrat's radio show was very different. It couldn't have been more than six months ago, but to Dennis and Mac, thinking back on it now, it felt like another lifetime. The Muskrat had been playing a cheery Bill Monroe song, "Footprints in the Snow," when he cut out the record halfway through the chorus. The ranch hands stopped their game of Gin Rummy. They turned and looked at the radio. The Muskrat always played a record all the way through. What could be wrong?

"Folks," said the Muskrat. "I don't know how to tell you this, but I'm going to ask you to stay very calm. The manager of my station has just passed me a note. It seems that the local health authorities are

asking us radio folks to tell you, our listeners, that... well, a disease is spreading."

The ranch hands put down their cards. Dennis and Mac exchanged a glance.

"Now," The Muskrat said, his rich voice sounding uncharacteristically shaky, "they don't quite know what this disease is, but it's real bad. It's very contagious, and people who get it don't have a lot of luck recovering. Now, doctors are trying to figure out a cure, but there's been no luck yet. So, in the meantime, we're asking that you stay in your homes as much as possible and avoid public places until the disease dies down."

One of the ranch hands, a big, cocky boy named T.J., laughed. "Like heck I'm not going into town," T.J. chuckled. "I got a date." The other ranch hands stared at him. T.J. stopped laughing.

"Please, folks, do what the doctors say," The Muskrat pleaded. "I'm sure it'll just be for a few days." He was quiet for a moment. Then the ranch hands heard the sound of a turntable needle hitting the record, and an old Earl Scruggs song came on.

That was the beginning of it. For the next few days, the ranch went about its business. The Greersons told the boys not to worry, that this would all be over soon. They had enough food on the ranch to last months. In the meantime, there were plenty of new calves that needed branding. At night, everyone gathered around the radio and listened to updates. The news seemed only to get worse. More and more people were getting sick. The symptoms were strange. People would become violently ill, then fall into a long, deep sleep. The big cities - New York, Los Angeles, Chicago - had become like ghost towns. No one would go out into the street for fear of catching the disease.

The news kept getting worse until, finally, the radio station stopped transmitting. The Greersons called a meeting in the dining room of the main house. Everyone sat around the big dining room table where Ann Greerson served Sunday supper. After everyone was seated, Bucky Greerson stood up. He was a short, plump man with a droopy handlebar mustache. You wouldn't think it looking at him, but his voice boomed.

"Now," he said, "I know you're worried about your families, and I don't feel right chaining you here while you don't know what's become of your people. So, anyone who wants to leave is free to go. Ann and I will make do."

Dennis and Mac looked at each other. They'd talked about leaving but had tried to pretend they wouldn't need to. They had hoped the plague would be over soon, that the world would return to the way it was, that it had all been a strange hallucination. Now that they had the option to venture out into the world, to see how bad things really were, they weren't sure they wanted to know.

"By a show of hands," Bucky Greerson asked, "how many of you want to leave?"

Mac and Dennis looked around. They were the only two with their hands up.

The Greersons gave them enough food to last a couple weeks - corn bread and apples and cured ham and syrupy peaches in mason jars. Mac and Dennis packed up their things and loaded everything into Mac's truck, a sputtering old pickup. The Greersons and the ranch hands gathered around to see them off.

"Be safe, boys," said Ann Greerson, kissing them each on the cheeks and hugging them hard. "And

remember your manners." As Mac and Dennis pulled away, they saw her husband holding her, her body shaking with sobs.

A week later, Mac and Dennis had zigzagged through dozens of small towns and a few larger cities. What they found frightened them: every place was empty. Not a person was out. Sometimes, they would stop and knock on doors. No one would answer. If they went inside, they wouldn't find a single soul home. Sometimes they'd find the dinner table set, plates piled high with molding food. Every time they entered a new room, they both winced, thinking they'd find a dead body. But they never did. It was indescribably eerie.

Sometimes, if the place still got electricity, they'd try to use the phone. Every time, no matter what number they dialed, the same recorded message came on: "The number is not in service. Please check the number and try again."

Finally, the young men decided to make tracks to the nearest big city. It would be a full day of driving, but there had to be someone there. You can't abandon a whole city.

Dusk had come, and Mac was at the wheel. Dennis had been driving for the last eight hours and was taking a nap in the passenger seat. They were passing through a long, flat piece of pastureland when Mac saw a flicker of movement in the distance. He stopped the car, turned off the engine and shook Dennis awake.

"Look," Mac said excitedly. "I think someone's coming."

Dennis squinted his eyes. The flicker of movement was becoming larger. What had been a dot of motion became a long line, stretching across the horizon. Mac and Dennis strained to see.

"I think it's some people," said Dennis. "Let me get my binoculars."

He rustled in his backpack and pulled out his pair. Dennis put them to his eyes and looked through them. Mac heard him gasp.

"My gosh," whispered Dennis.

What he saw was people. Thousands of people. Hundreds of thousands, maybe a million. A swarm of people like the world had never seen. And the people were all running. They were running as fast as they could go, like something was chasing them, or like they were chasing something. As they grew closer, Dennis could just make out the people's faces. Their eyes were wild.

"Start the car," said Dennis.

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Ed. : *The tale continues in Part 2, "Refueling."*

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. What news do Dennis and Mac hear on the radio while at the ranch?

- A. There is a cattle farm that hires young men to work over the summer.
- B. Thousands of people are running as fast as they can across the country.
- C. There is a bad disease spreading among people.
- D. Food is getting moldy on dinner plates because people are not staying at home.

2. What is the sequence of events at the beginning of this story?

- A. The story begins after the disease has struck and then takes the reader back in time to a point before the disease.
- B. The story begins before the disease has struck and then takes the reader forward in time to a point after the disease has ended.
- C. The story begins as the disease is striking and then takes the reader back in time to a point before the disease.
- D. The story begins as the disease is striking and then takes the reader two years into the future.

3. The Muskrat says that the disease is "real bad."

What evidence in the story supports his statement?

- A. T.J. wants to go into town even though The Muskrat has advised people to stay in their homes.
- B. After The Muskrat warns people about the disease, an old Earl Scruggs song comes on the radio.
- C. The Greersons tell the boys not to worry, saying that the disease will end soon.
- D. The disease is very contagious, and doctors have not been able to figure out a cure.

4. Why do Dennis and Mac decide to drive to the nearest big city?

- A. They want to find a person.
- B. They are running out of food and need more.
- C. They see thousands of people running.
- D. They both like being outdoors.

5. What is this story mainly about?

- A. a married couple who own a ranch, the young men they hire to work for them one summer, and the music they listen to together
- B. two young men, a mysterious disease, and what happens when they go out to explore after the disease hits
- C. a radio DJ, the music he likes to play, and the effect that his song choices have on the people who listen to them
- D. a long line of people running through a flat piece of pastureland and what happens when two young men see them

6. Read the following sentence: "More and more people were getting sick. The **symptoms** were strange. People would become violently ill, then fall into a long, deep sleep."

What does the word **symptoms** mean?

- A. fears of getting sick
- B. signs of a disease
- C. serious injuries
- D. suggestions that doctors give to patients

7. Choose the answer that best completes the sentence below.

Dennis and Mac are frightened after leaving the ranch \_\_\_\_\_ the towns and cities they visit have no people in them.

- A. although
- B. as a result
- C. because
- D. however

8. What happens to people when they get sick with the disease described in the story?

9. What are the people Dennis and Mac see at the end of the story doing?

10. Is there a connection between the disease and the people Dennis and Mac see at the end of the story? Explain why or why not, using evidence from the story.



# SLEEPING

COULD A MASSIVE VOLCANO UNDERNEATH  
YELLOWSTONE NATIONAL PARK  
SOON RUMBLE TO LIFE?

LETTING OFF STEAM  
Steam rises off the  
Grand Prismatic  
Spring in Yellowstone  
National Park.

**ESSENTIAL QUESTION:** How do processes inside Earth shape the world as we know it?

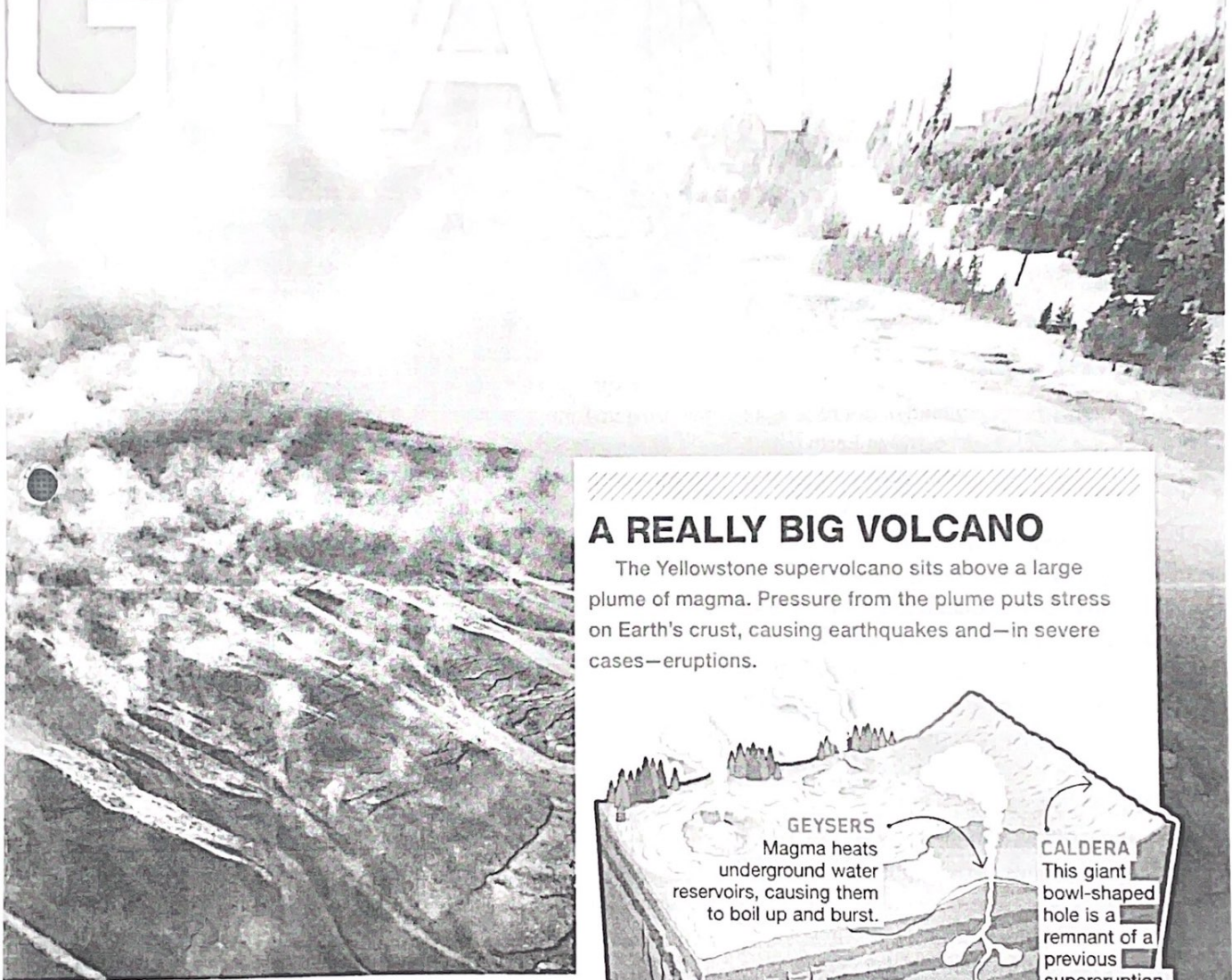
Each year, millions of visitors flock to Yellowstone National Park to marvel at its natural wonders. Inside the park, which spans parts of Wyoming, Idaho, and Montana, *geysers* spray boiling water high into the air next to multicolored hot springs. But Yellowstone's most unique feature isn't something people can see—it's buried 8 kilometers (5 miles) underground.

Gigantic chambers of *magma* lie hidden beneath

and dissolved gases churns underground, providing the heat that fuels Yellowstone's geysers and hot springs. But the magma chambers aren't just furnaces for the park's natural wonders. They're also the heart of a *supervolcano*—an extremely large volcano that, if it were to erupt, could change the face of Earth.

Scientists once believed supervolcanoes slowly built up from *dormancy*—a period of relative inactivity—to an eruption over thousands of years. But a recent study suggests that the time between dormancy and a supervolcano blowing its top could instead be decades.

# GIANT



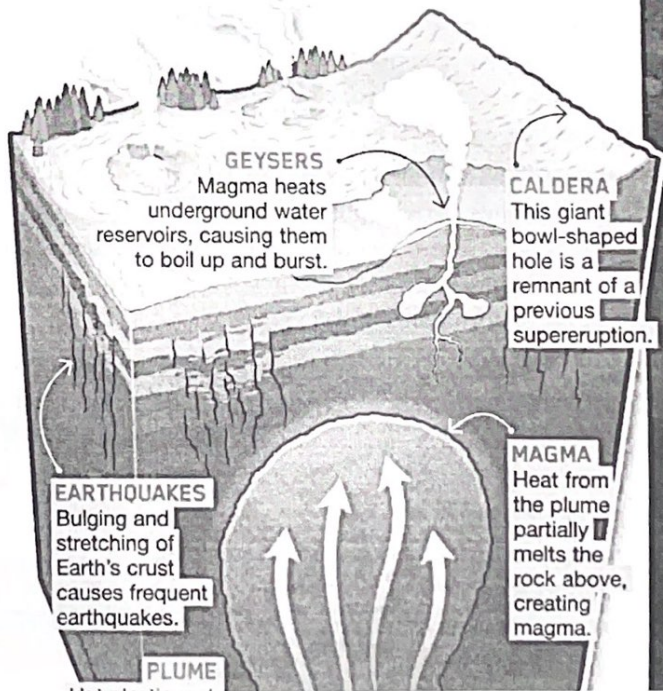
## A REALLY BIG VOLCANO

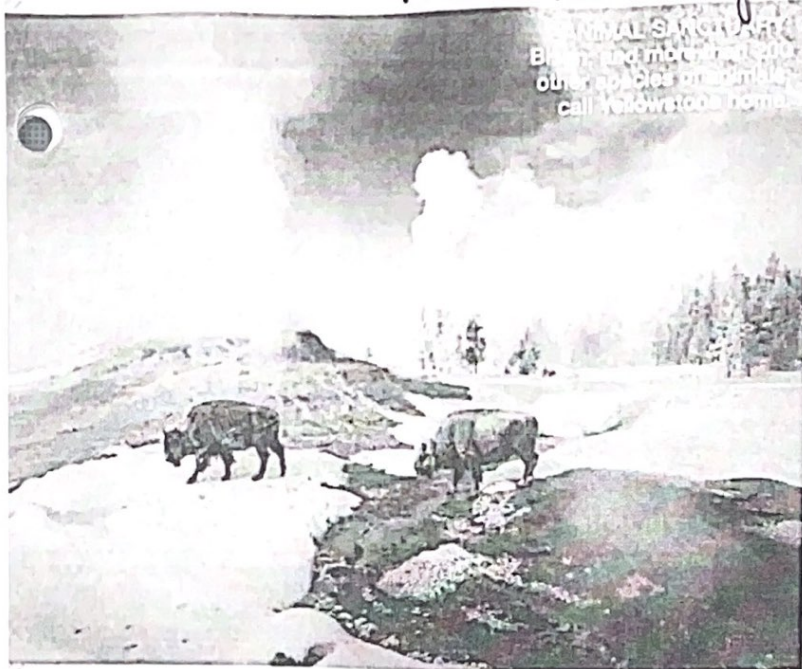
The Yellowstone supervolcano sits above a large plume of magma. Pressure from the plume puts stress on Earth's crust, causing earthquakes and—in severe cases—eruptions.

what's going on inside the Yellowstone supervolcano to better understand when and how it could erupt.

### SUPERSIZED ERUPTION

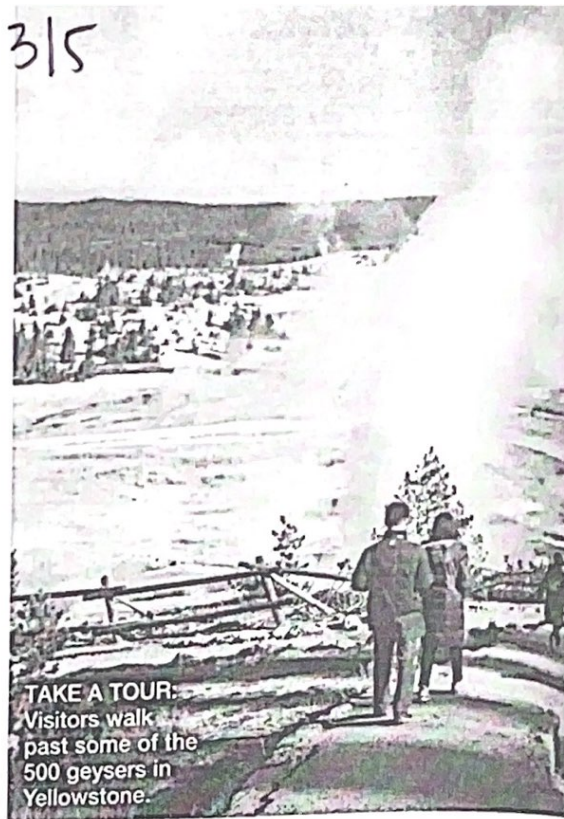
Yellowstone is just one of about 20 supervolcanoes scientists have found spread around the globe. "They're not the kind of volcano you see in a picture book," says Michael Poland, the scientist-in-charge at the Yellowstone Volcano Observatory. "There are no pointy mountains—they're all underground. But they're really,





Yellowstone formed over a *hot spot*, a column of hot rock and magma rising up from deep within Earth (see *A Really Big Volcano*, p. 15). Like a giant blowtorch, this fiery plume heats the rocks under Yellowstone until they melt. The resulting buildup of magma pushes up on Earth's *crust*, or outermost layer.

A supervolcano's magma chambers can remain dormant for millions of years, says Poland. But the hot spot can suddenly begin pumping large amounts of magma into the

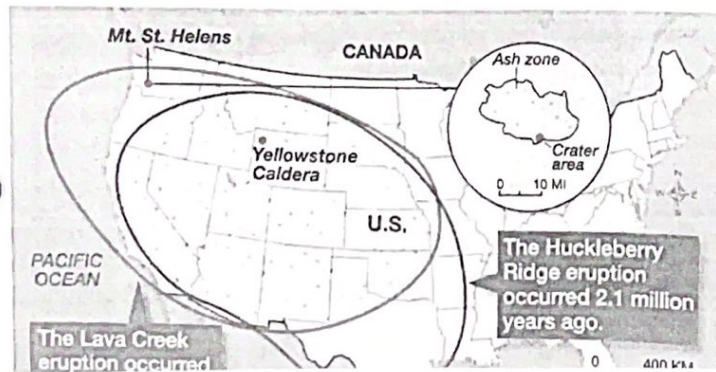


system, causing the pressure inside the chambers to increase. And when the pressure becomes too high for the crust to contain, the supervolcano can erupt.

No one can predict the timing or size of the next supereruption at Yellowstone, but it's possible that the fallout could cover much of the U.S. in a layer of ash several inches to several feet deep (see *Blast Zone*, left). Volcanic particles spewed into the atmosphere could temporarily block sunlight and cool Earth by several degrees for as long as a decade. The resulting *volcanic winter* could make it hard to grow food—leading to food shortages and mass migrations of people and animals.

## BLAST ZONE

Two previous supereruptions at Yellowstone—the Huckleberry Ridge and Lava Creek eruptions—blanketed a large area of the U.S. in a layer of ash. By comparison, the 1980 eruption of Mount St. Helens—one of the most devastating eruptions in recent U.S. history—produced an ash zone only 19 miles wide.



## DIGGING INTO THE PAST

Scientists have examined the *geologic record* around Yellowstone. From this layer of rock left behind by sediment and volcanic activity, they learned about some of the volcano's past supereruptions. The oldest happened 2.1 million years ago, leaving a *caldera*, or crater, more than 97 km (60 mi) across—about twice as wide as Rhode Island. Most recently, an eruption 630,000 years ago ejected about 2,500 times more magma than the 1980 eruption of Mount St. Helens in Washington State, which left a...

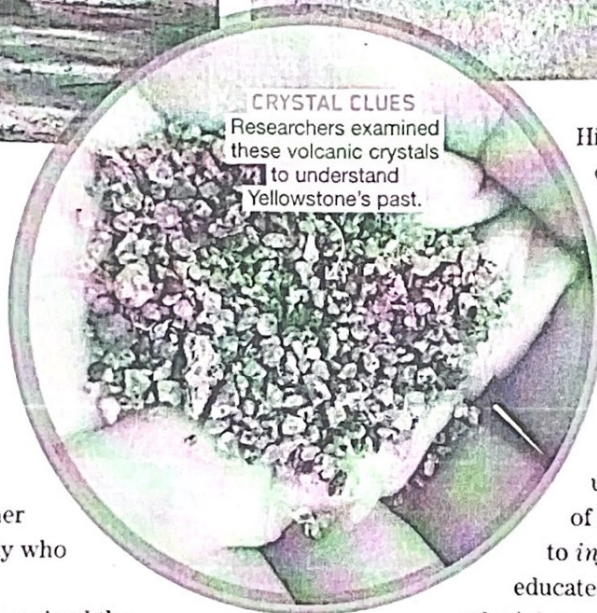
7 scienc Day 1 4/5



**CLOSE WATCH:** Scientists use these solar-powered GPS monitors to measure volcanic activity at Yellowstone.



**CRYSTAL CLUES**  
Researchers examined these volcanic crystals to understand Yellowstone's past.



samples of ash and volcanic crystals, which form as magma cools, from deposits on Earth's surface. "The volcanic crystals reveal information about how the supereruption happened, as well as over what time frame," says Hannah Shamloo, a researcher from Arizona State University who worked on the project.

The researchers closely examined the crystals' layers with a *scanning electron microscope*. This instrument uses beams of negatively charged particles called *electrons* to scan an object's surface to determine its composition and structure. The outermost layer of the crystals formed during the time it took for magma to begin building beneath the supervolcano until its eruption. Shamloo and her colleagues expected to see that this layer grew over hundreds of thousands of years. Instead, it appeared that the layer had formed in a matter of decades. The scientists concluded that the supervolcano went from dormancy to eruption much more quickly than originally thought.

## NATURAL DISASTER

His team keeps a constant eye out for signs that could indicate Yellowstone might be ready to blow. To do so, Poland and his team use a variety of instruments to *infer*, or make educated guesses about, what's happening inside the volcano's magma chambers below.

Devices called *seismographs* measure energy waves caused by earthquakes. And GPS sensors placed around the park give Poland's team information about *ground deformation*—how volcanic activity causes the land to shift.

Earthquakes and ground movement are common in such a geologically active area. It would take drastic changes for Poland to become concerned. Even if Yellowstone erupted, he says, it wouldn't be world-ending.

"I get letters and emails from students who are scared about supervolcanoes," says Poland. "But let me be clear—a supereruption is very rare, and there's no sign of it happening soon. A supereruption would be devastating to the

## CORE QUESTION

How do geologists know what occurred during Yellowstone's past

Name: \_\_\_\_\_



# READING BETWEEN THE LINES

In "Sleeping Giant" (p. 14), you read about how scientists are studying a supervolcano beneath Yellowstone National Park. The researchers use both *observations* and *inferences* to understand what happened to the volcano in the past and to predict what will happen in the future. Study the definitions of these terms in the box below. Then use them to identify which of the following statements about the Yellowstone supervolcano are observations (O) and which are inferences (I).

**Observation:** a statement about information obtained through one's senses

**Inference:** a conclusion that is based on reasoning and evidence that is already known



- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>_____ 1. Unlike typical volcanoes, the Yellowstone supervolcano isn't shaped like a pointy mountain.</p> <p>_____ 2. A caldera more than 97 kilometers (60 miles) across formed in Yellowstone.</p> <p>_____ 3. Earthquakes in Yellowstone may be caused by the movement of magma deep underground.</p> <p>_____ 4. An increase in ground deformation is a sign that the supervolcano may erupt soon.</p> <p>_____ 5. The 1980 eruption of Mount St. Helens spread ash over an area 30 km (19 mi) wide.</p> | <p>_____ 6. Magma chambers beneath the ground provide the heat that fuels the geysers and hot springs in Yellowstone.</p> <p>_____ 7. Energy waves from earthquakes travel through the ground around Yellowstone.</p> <p>_____ 8. Ash from a previous Yellowstone eruption spread over half of the continental U.S.</p> <p>_____ 9. Boiling-hot water sprays from geysers on the surface of Yellowstone National Park.</p> <p>_____ 10. Ash from a future supervolcano eruption in Yellowstone could create a volcanic winter.</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



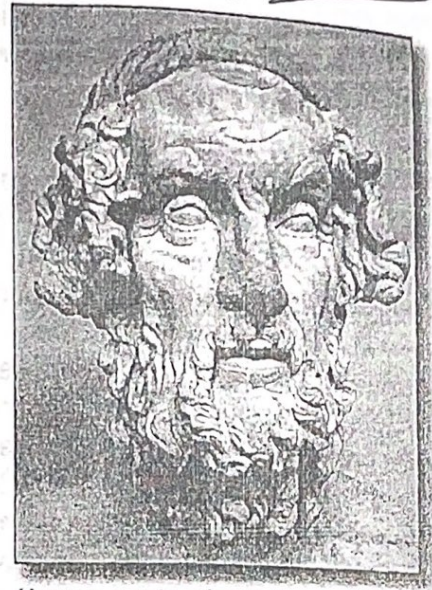
Name: \_\_\_\_\_

## The Rise of Hellenic Civilization

### The Dark Ages

During the four centuries B.C. following the Mycenaean civilization, Greece fell into a period of decline. The prosperity and wealth of the Mycenaean period had gone. The flourishing arts, monumental architecture, and knowledge of writing disappeared. Trade declined, and the Mycenaean palaces were abandoned. The period is known as the "**Dark Ages**," and it lasted from about 1200 to 750 B.C.

Homer, who wrote about the heroic deeds of Mycenaean kings in the *Iliad*, also described the events within the social and political background of this dark period. Agriculture had returned to a simple level of **subsistence**. Every man owned and cultivated his own small plot of land for individual survival. The king was no longer the supreme and authoritative ruler, but was advised in regard to what action should be taken by a small group of nobles or aristocrats. The **monarchy** of the Mycenaean period, where the king was supreme, was replaced by a "rule of a few men," called an **oligarchy**. A small group of wealthy nobles had all the power.



Homer wrote about the period in Greek history known as the Dark Ages.

Another significant change that occurred at the beginning of this period was the introduction of iron for making tools and weapons. Accordingly, this period is also known as the "**Iron Age**."

### The Ionian Migrations

One major event that characterizes the "Dark Ages" was a migration of Greeks across the Aegean Sea. Thucydides, a fifth century B.C. Greek historian, called this the **Ionian Migrations**. (See map on page 18.) Three groups of Greeks, based on dialects they spoke, moved to and settled on the western coast of **Asia Minor** (modern-day Turkey). The Dorians, who spoke Doric, settled in the southern part; the Ionians, who spoke Ionic, inhabited the middle part; and the Aeolians, who spoke Aeolic, went to the northern part of the area. The Greeks living in this coastal area were later to be the cause of conflict between the Greeks and the Persians.

### Hellenic Civilization

By the middle of the eighth century B.C., Greece had recovered from its darkest period in history, and a new civilization emerged. This was called the **Hellenic** (or Greek) civilization. Trade once again began to flourish. The alphabet was introduced into Greece from Phoenicia, a seafaring state located in today's Lebanon. Because the alphabet contained no vowels, vowels were added to adapt to the Greek language. Most importantly, a new political institution emerged, which typified the rest of Greek political history—the **city-state** or **polis**. Because Greece is a very mountainous region, small independent political units developed rather than a large political union. Another factor in the development of city-states was the Greeks' love for freedom and independence. Each city-state was autonomous with its own laws and constitution, leaders and army, system of taxation, and sometimes its own coinage system. The largest and most important of Greek city-states were Athens in Attica, Sparta in the Peloponnese, and Thebes in Boeotia.

Until about 650 B.C., most city-states were ruled by the aristocrats. They had an oligarchic form of government. The political power was in the hands of a few wealthy families who owned the

best land and abused the majority of the city-state's citizens who were poor farmers. Sometimes these farmers got into debt and were forced to work for the aristocrats to pay off their debts. Some even became slaves.

### Greek Colonization

Starting about 750 B.C., due to poverty and insufficient farming land, these poor farmers began to leave their homelands and seek new opportunities elsewhere. Other reasons for emigration, even though less important, were trade, personal adventure, and political refuge. A phase of "Greek colonization" was launched. (See inset map on page 18.) Colonies were set up along the coasts of southern Italy and Sicily (known as Magna Graecia or Greater Greece), France, Spain, and along the coast of the northern Aegean and Black Seas. Some important colonies include Syracuse (Sicily), Phaestum and Cumae (Italy), Massalia (modern Marseille, France), and Byzantium on the Black Sea (modern Istanbul). The Greek city-states that took part in this colonization process were mostly Athens, Corinth in the Peloponnese, Eretria and Chalkis on the island of Euboea, and the Greek-Asiatic cities of Miletus and Phocaea. The Greek colonies became city-states of their own and were politically and economically independent. The only ties that remained with their mother city-states were cultural and religious. By 600 B.C. the Greeks had spread their people and ideas throughout the regions of the Mediterranean and Black Seas. This Greek influence was later to have a profound effect on Roman culture.

### Tyrannies

One of the results of Greek colonization was the emergence of a new social class of people the middle class or merchants, who had become wealthy through industry and trade. This new middle class also wanted a share in the political power of the city-states. Consequently, at home in Greece, the discontent of the poor was solved in another way. Tyrants, men from the new middle class, came to power in many city-states between 650 and 500 B.C. with the support of the people. This type of government is called a **tyranny**. A Greek **tyrant**, however, unlike today's tyrant, was not a brutal ruler, but a ruler who had not taken power according to the constitution. In fact, most Greek tyrants were good rulers and brought many benefits, such as power and wealth, to the city states. Coinage was introduced, trade and colonization were encouraged, and athletic, musical and dramatic contests were established. One notable tyrant was Peisistratus of Athens (560–52 B.C.), who embellished the city with monuments, stimulated trade and industry, and helped the poor farmers. He increased the prestige of Athens.

A very important change that took place during this time, and one which may also have helped the rise in power of tyrants, was the development of an infantry army. A new type of heavily armed soldier called a **hoplite**, placed within a tight formation, called a **phalanx**, fought many successful battles for the next three centuries.

### Democracy

The rule of tyrannies did not last very long, however, because some of the tyrants in power became too authoritarian. Instead, the governments of the city-states became once again oligarchies or changed to a new form of rule, **democracy**. Democracy, or "rule by the people," was first developed in Athens. Sparta, on the other hand, retained a form of oligarchic rule. The other Greek city-states followed the lead of either Athens or Sparta.



Hoplite

7th Social Studies NT1 #1

# Knowledge Check

Name: \_\_\_\_\_

## Matching

- 1. subsistence
- 2. monarchy
- 3. oligarchy
- 4. tyranny
- 5. democracy
- 6. city-state
- 7. hoplite
- 8. phalanx
- 9. Hellenic

- a. rule by the people
- b. rule by a man who had not taken power according to the constitution
- c. rule by a few wealthy men
- d. rule by a king
- e. Greek
- f. farming a small plot of land for individual survival
- g. a tight formation of soldiers
- h. a heavily armed Greek soldier
- i. a small independent political unit based around a city; polis

## Multiple Choice

10. During the Dark Ages, Greeks migrated across the Aegean Sea to \_\_\_\_.
- a. Italy      b. Asia Minor      c. Egypt      d. Massalia
11. During the Greek colonization period, what new social class of people emerged?
- a. slaves      b. aristocrats      c. upper class      d. middle class

## Constructed Response

12. Why did the Hellenic civilization develop the political institution of the city-state or polis? Use details from the reading selection to support your answer.

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