



2020

Erie Rise Leadership
Academy Charter School

Parent Lesson Plan

[PARENT LESSON PLAN]

6th Grade Week 3 April 6 - April 10

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INTRODUCTION

Hello Parents!

Included in this packet is a week's worth of printed ELA, Mathematics, and Science/Social Studies work for your students while they are at home. Each day is separated into the 3 content areas for the printed material. If you have access to the digital curriculum, a pacing guide is also provided outlining the digital component assigned for each specific day. If you need technology, please contact the school and we can make it available to you. Also remember, USATestPrep is always an option!

We know some of this material maybe be challenging, but try your best to complete it! Hopefully we will see you back in the classroom soon and will be able to go over all the information.

Printed materials may be turned into to the distribution centers once completed, but it is not a requirement.

Mrs. Will will be available on Youtube Live every day from 10AM-11AM to assist with curriculum questions and/or any resource questions for parents or students.

Stay safe and healthy everyone!

Missing seeing everyone's smiling face! Remember to wash your hands!

Educationally Yours ,
Mrs. Veronica Will

HELPFUL INFORMATION

Distribution Sites/Information

Food/Curriculum distribution will take place at:

Erie Rise Leadership Academy Charter School
1006 West 10th Street
Erie, PA 16502

Monday and Wednesday from 9AM until 12PM

Leadership Team

Mr. Terry Lang, CEO: 814 812-0503
Mrs. Veronica Will, Principal: 814 873-5158
Mr. Aubrey Favors, HR: 814 812-3026
Mr. Kirk Paskell, Transportation: 814 566-0002
Mr. Homer Smith, PR: 814 392-3413
Mrs. Pearl Jeffries, Social Services: 814 722-5056

DIGITAL LESSON PACING GUIDE

ConnectED Instructions

Please see attached instructions for accessing the digital curriculum.

USATestPrep Instructions

Please see attached instructions for accessing this test-prep site.

If you have access to high speed internet, below are the assignments the teachers have assigned for the various content areas:

Digital Pacing Guide

	Monday	Tuesday	Wednesday	Thursday	Friday
ELA/ Writing	ConnectEd StudySync Assignment: Monday April 6	ConnectEd StudySync Assignment: Monday April 7	ConnectEd StudySync Assignment: Monday April 8	ConnectEd StudySync Assignment: Monday April 9	ConnectEd StudySync Assignment: Monday April 10
Math	Lesson: Pearson Chapter 5 Lesson 3: Compare Ratios	Lesson: Pearson Chapter 5 Lesson 3: Compare Ratios	Lesson: Pearson Chapter 5 Lesson 3: Compare Ratios ZOOM Class Meetings 6G 1:00 pm 6B 2:00 pm	Lesson: Pearson Chapter 5 Lesson 3: Compare Ratios	Lesson: Pearson Chapter 5 Lesson 3: Compare Ratios
Science	USATestPrep Khan Academy	USATestPrep Khan Academy	USATestPrep Khan Academy	USATestPrep Khan Academy	USATestPrep Khan Academy
Social Studies	Lesson: Chapter 14: Intro to Chapter USA Test Prep Khan Academy	Lesson: Chapter 14: Place and Time USA Test Prep Khan Academy	Lesson: Chapter 13: Lesson 1 USA Test Prep Khan Academy	Lesson: Chapter 13 Lesson 2 USA Test Prep Khan Academy	Lesson: Chapter 13 Lesson 3 USA Test Prep Khan Academy

ELA PRINT MATERIAL

Writing: Spelling Words Packet

- Students can complete the packet at their own pace throughout the week.

Packet Includes:

- 20 Word Spelling List
- Spelling Bee Packet (see below for more information)
- Word scramble
- Alphabetical Order
- Finding the missing letter
- Find the correct spelling
- Create Sentences
- Define each word

The spelling bee packet gives the correct spellings and the definitions for the words on their list. Students may use this to complete their work, they will need to search for each word in the packet. Students may want to keep the spelling bee packet for future use.

Students may go on TypingClub or USATest Prep for more ELA practice.

Reading:

- Go to <https://connected.mcgraw-hill.com/connected/login.do>
- Login in using personal username and password
 - 6th Grade: Launch Study Sync
 - Launch Study Sync AGAIN
 - Click assignments in top/center of screen
 - Complete assignments daily by DATE
 - Don't forget to click SUBMIT when you've completed it

MATH PRINT MATERIALS

Day 1:

1. Complete Basic Facts - Create Flashcards, time how many they get correct in 5 mins
 - a. Your student will know what basic facts s/he is working on.
2. Read and work through the first two examples in the printed **Coach Book Lesson**
 - a. It should walk you step by step how to work each problem.
3. Work on Pearsonrealize.com
 - a. This will align with the Coach Book Lessons
4. Complete the online **USATestPrep** material
5. Play Prodigy
 - a. These questions always deal with what is done in class, what is ahead, and what your student needs work on.

Day 2:

6. Complete Basic Facts - Create Flashcards, time how many they get correct in 5 mins
 - a. Your student will know what basic facts s/he is working on.
7. Read and work through the first two examples in the printed **Coach Book Lesson**
 - a. It should walk you step by step how to work each problem.
8. Work on Pearsonrealize.com
 - a. This will align with the Coach Book Lessons
9. Complete the online **USATestPrep** material
10. Play Prodigy
 - a. These questions always deal with what is done in class, what is ahead, and what your student needs work on.

Day 3:

11. Complete Basic Facts - Create Flashcards, time how many they get correct in 5 mins
 - a. Your student will know what basic facts s/he is working on.
12. Read and work through the problems.
 - a. Frustrated? STOP! Try again tomorrow.
13. Class ZOOM Meetings 6G @ 1:00 and 6B @ 2:00
 - a. This will be the 1st attempt at online lessons
14. Complete the online **USATestPrep** material
15. Play Prodigy
 - a. These questions always deal with what is done in class, what is ahead, and what your student needs work on.

Day 4:

16. Complete Basic Facts - Create Flashcards, time how many they get correct in 5 mins
 - a. Your student will know what basic facts s/he is working on.
17. Read and work through the problems.
 - a. Frustrated? STOP! Try again tomorrow.
18. Work on Pearsonrealize.com
 - a. This will align with the Coach Book Lessons
19. Complete the online **USATestPrep** material
20. Play Prodigy
 - a. These questions always deal with what is done in class, what is ahead, and what your student needs work on.

Day 5:

21. Complete Basic Facts - Create Flashcards, time how many they get correct in 5 mins
 - a. Your student will know what basic facts s/he is working on.
22. Read and work through the problems.
 - a. Frustrated? STOP! Try again tomorrow.
23. Work on Pearsonrealize.com
 - a. This will align with the Coach Book Lessons
24. Complete the online **USATestPrep** material
25. Play Prodigy
 - a. These questions always deal with what is done in class, what is ahead, and what your student needs work on.

SCIENCE/SOCIAL STUDIES PRINT MATERIAL

Science: Understanding Technology (pages 116-123, printed)

- **Day 1:**
 - Read pages 116-117
 - Highlight or underline important information and vocabulary words
 - Answer interactive questions while reading
- **Day 2:**
 - Read pages 118-119
 - Highlight or underline important information and vocabulary words
 - Answer interactive questions while reading
- **Day 3:**
 - Read pages 120-123
 - Highlight or underline important information and vocabulary words
 - Answer interactive questions while reading
- **Day 4:**
 - Use the lesson pages to help complete the worksheet titled 'Review and Reinforce Understanding Technology'
- **Day 5:**
 - Use the lesson pages to help complete the worksheet titled 'Lesson Quiz Understanding Technology'
- **Online Work (completed throughout the week):**
 - USATestPrep Assignments
 - Khan Academy Assignments

Social Studies:

The textbook used in class is available online to use.

- **Day 1:**
 - Using either the online or print material, complete the Chapter 14 Introduction.
 - USA Test Prep assignments are due on Wednesday April 8th
 - Khan Academy material is due on Wednesday April 8th
 - Course material is also available online.
- **Day 2:**
 - Using either the online or print material, complete the Chapter 14: Place and Time material.
 - USA Test Prep assignments are due tomorrow, April 1st.
 - Khan Academy material is due tomorrow, April 8th
 - Course material is also available online.
- **Day 3:**
 - Using either the online or print material, complete the Chapter 14: Lesson 1 Material.
 - USA Test Prep assignments are due Friday, April 3rd.
 - Khan Academy Assignments are due Friday, April 10th.
 - Course material is also available online.
- **Day 4:**
 - Using either the online or print material, complete the Chapter 14: Lesson 2 Material.
 - USA Test Prep assignments are due tomorrow, April 3rd.

- Khan Academy Assignments are due tomorrow, April 10th.
- Course material is also available online.
- **Day 5:**
 - Using either the online or print material, complete Chapter 14: Lesson 3 Material.
 - USA Test Prep assignments are due today!
 - Khan Academy assignments are due today!
 - Course material is also available online.

Also, attached is a new power point assignment for all students if they have internet access. Please follow all directions and I will provide log-ins for google slides next week!

ADDITIONAL RESOURCES (EDUCATIONAL)

Included are a list of hand selected resources for students with internet to use at home.

<https://my.mheducation.com/login>

<https://www.usatestprep.com/>

<https://www.cdc.gov/flu/pandemic-resources/1918-commemoration/pandemic-timeline-1918.htm>



1

Understanding Technology



- What Is the Goal of Technology?
- How Does Technology Progress?
- What Are the Parts of a Technological System?

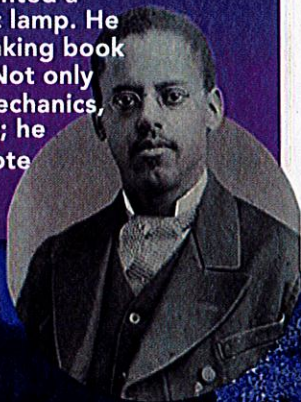


my planet DiARY

Lewis H. Latimer (1848–1928)
Renaissance Man

You probably know who Thomas Edison and Alexander Graham Bell are. But, do you know who Lewis H. Latimer is? He, too, was an inventor. Latimer was called a "Renaissance man" because he could do many things.

A son of escaped slaves, Latimer enlisted in the Union Navy at the age of 15. After the Civil War ended, Latimer taught himself mechanical drawing. He used the skill to draw the plans for Alexander Graham Bell's invention, the telephone. Later, Latimer took a job at the U.S. Electric Lighting Company, where he invented a different type of electric lamp. He also wrote a groundbreaking book about electric lighting. Not only was Latimer skilled in mechanics, but he was also an artist; he played the flute and wrote plays and poems.



Read the following questions. Write your answers below.

1. What skills did Latimer have that shaped his career?

2. Besides electric lights, name other inventions that are part of your daily life that didn't exist hundreds of years ago.

➤ **PLANET DIARY** Go to Planet Diary to learn more about understanding technology.



Do the Inquiry War What Are Some Examples of Technology?

Vocabulary

* technology engineer obsolete goal

Skills

- 🎯 Reading: Relate Text and Visuals
- 📌 Inquiry: Classify

▶ What Is the Goal of Technology?

When you hear the word *technology*, you may think of digital music players and cell phones. As you can see in **Figure 1**, technology includes more than modern devices. Trains and water faucets made life easier for people living in 1900. Ancient inventions, such as stone tools and the wheel, are examples of technology, too.

Meanings of Technology In addition to the devices that people build, technology refers to the knowledge and processes needed to make those things. Put simply, **technology** is the use of knowledge to solve practical problems. 📖 **The goal of technology is to improve the way people live.** For example, eyeglasses improve your ability to see. The Internet allows you to obtain information easily and quickly.

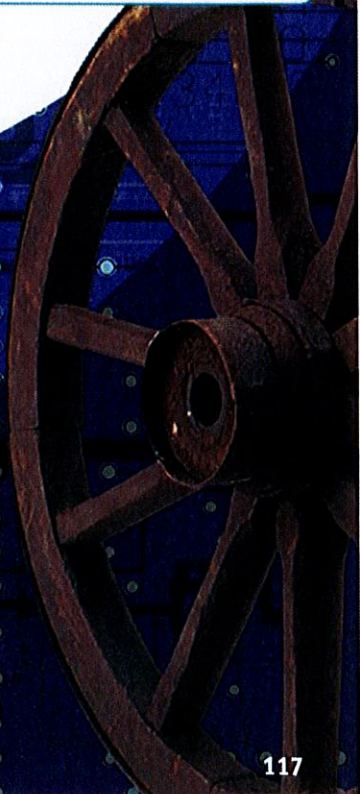
Wheel

FIGURE 1.....
Technology and You
Technology changes people's lives.
✍ **Infer** Tell how each object has improved the way people live.



Washing machine

Cell phone



▶ Areas of Technology Technology can be classified into at least six broad areas: communication, manufacturing, biological and chemical, energy and power, construction, and transportation. The biological and chemical area includes medical technology. Some products of these areas are shown in **Figure 2**.

The six areas of technology are often all involved in improving people's lives. For example, think about the technologies that bring a box of cereal to your table. Trains (transportation) carry grain from a farm to a factory. At the factory (construction), vitamins and minerals (biological and chemical) are added to the grain. The cereal is baked in an oven (energy and power) and then packaged (manufacturing). Trucks transport the boxes to markets, while the cereal is advertised on TV (communication). Finally, you buy the cereal.

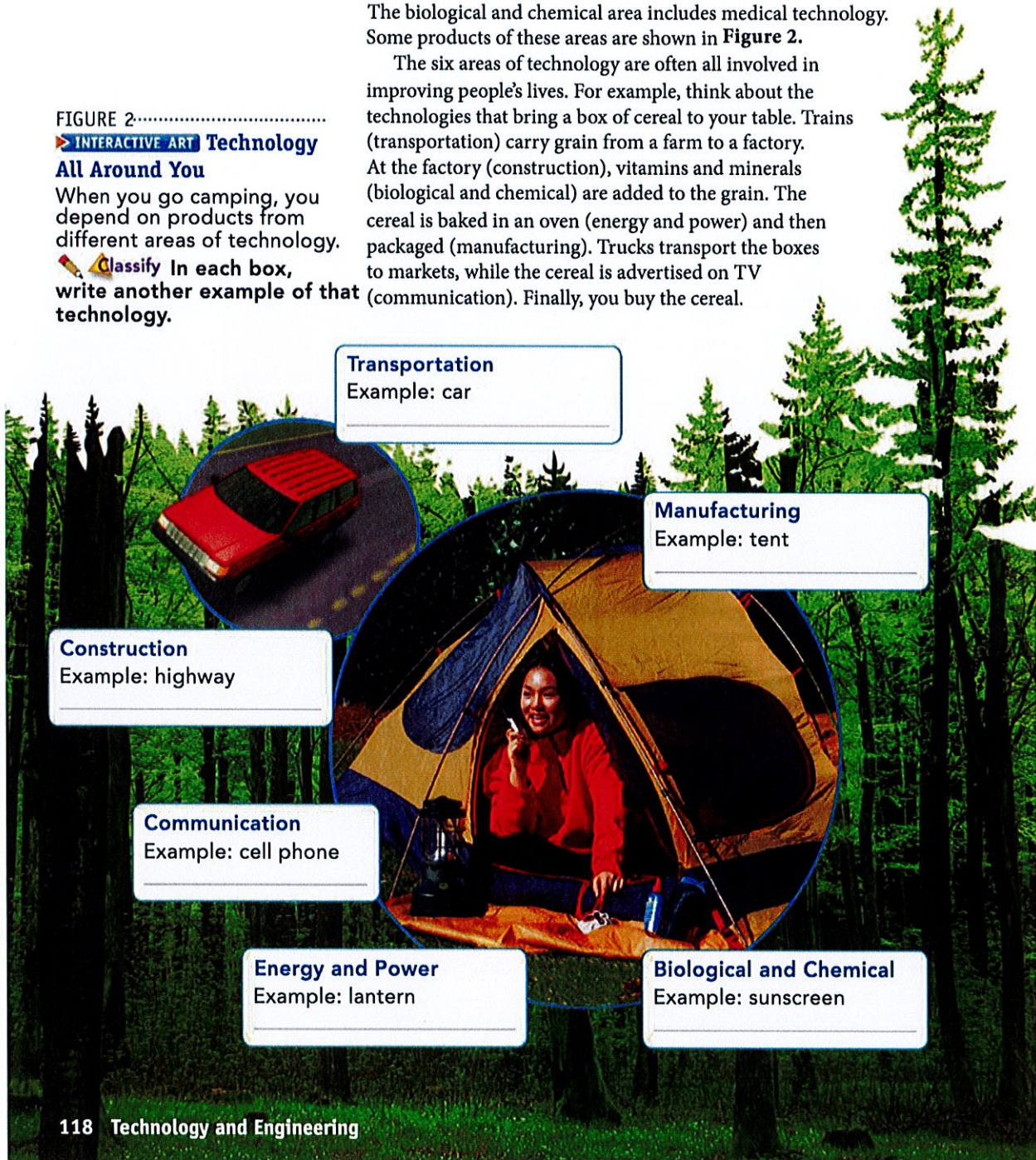
FIGURE 2.....

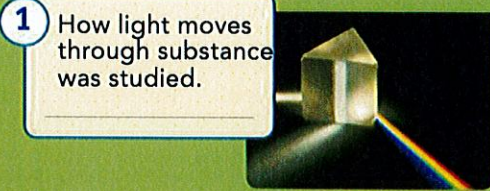
▶ INTERACTIVE ART Technology

All Around You

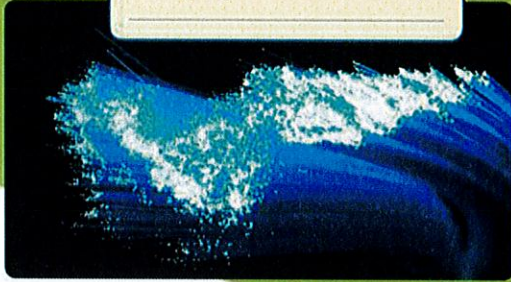
When you go camping, you depend on products from different areas of technology.

✏️ Classify In each box, write another example of that technology.

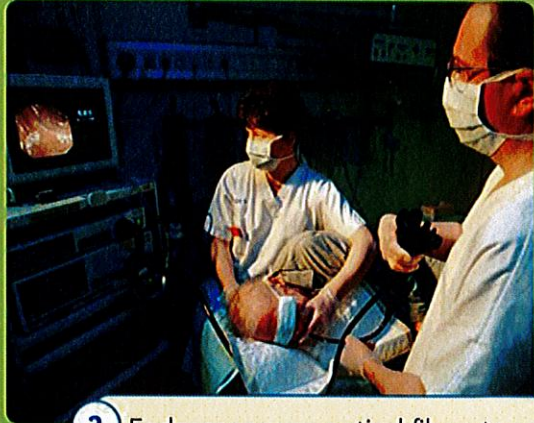




1 How light moves through substance was studied.



2 As a result, optical fibers, thin strands of glass or plastic that carry light, were developed.



3 Endoscopes use optical fibers to send images. Doctors use endoscopes to view organs within the human body.

Technology and Science Although science and technology are different, they often come together to reach a shared goal. Science is the study of the natural world to understand how it functions. People who study the natural world are called scientists. Technology changes the natural world to meet human needs or solve problems. An **engineer** is a person who uses both science and technology to solve problems.

Consider how a scientist and an engineer might view winds. A scientist might study how winds develop and how they affect the weather. An engineer might design a machine that uses wind to produce electricity. Despite these differences, science and technology often depend on each other and affect each other's progress. Look at **Figure 3** to see how science and technology interact.

FIGURE 3 Development of the Endoscope
The endoscope is an example of optical fiber technology. Both science and technology contributed to its development.

Apply Concepts each box, indicate whether the description relates to science, technology, or both.

Lab zone Do the Quick Lab Classifying.

Assess Your Understanding

1a. **Identify** What do people use to change the world to meet their needs—science or technology?

b. **Communicate** How does a telephone fulfill the goal of technology?

got it?


I get it! Now I know that the goal of technology is _____

I need extra help with _____


Go to **my science coach** online for help with this subject.

▶ How Does Technology Progress?

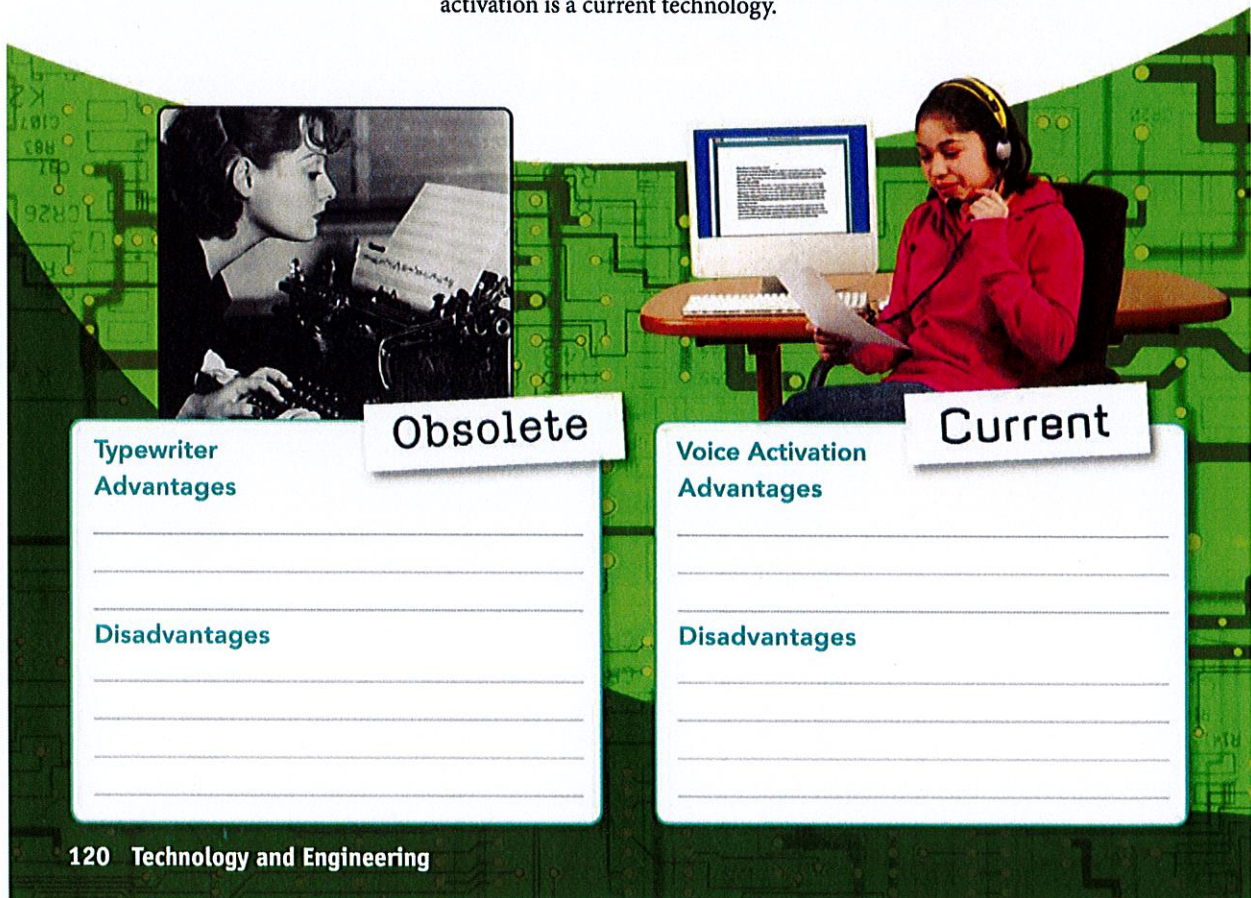
Technology is always changing. Suppose a digital music player you bought six months ago breaks. Chances are good that you will find a more up-to-date system when you shop for a new one.

 **Technology progresses as people's knowledge increases and as new needs can be satisfied.**

Obsolete Technologies Over time, some products may become **obsolete**, or no longer used. For example, typewriters were used to make written documents through the 1980s. They were very noisy, and you could not easily change or save a typed document. With a personal computer, you can make changes easily and save documents. Its user-friendly features helped the personal computer to become popular and to make the typewriter obsolete.


Relate Text and Visuals
Identify the advantages and disadvantages of the obsolete and current technologies shown

Current Technologies Today, you do not always need a keyboard to type an essay. You can speak it. With voice activation technology, your spoken words appear on your computer screen. But you must speak clearly or the wrong words will appear. Voice activation is a current technology.



Obsolete

Typewriter Advantages

Disadvantages

Current

Voice Activation Advantages

Disadvantages



FIGURE 4.....

An Emerging Technology
A fingertip device that does the work of a computer mouse is an example of an emerging technology.

Communicate Talk with a partner about an emerging technology. Name it and list its advantages and disadvantages in the boxes below.

Emerging Technologies Emerging technologies are those that are just beginning to become widely available. For example, the fingertip device shown in **Figure 4** can take the place of a computer mouse. It can interpret your hand movements and communicate them to your computer just as a mouse does. However, emerging technologies may be expensive and may not work perfectly.

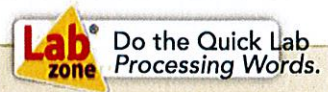
Coexisting Technologies Not all old technologies become obsolete. Pens and pencils coexist with current technologies because they still meet people's needs. Also, older, simpler technologies may be more useful than current ones in certain situations. For example, on a camping trip, a hand-operated can opener is more useful than an electric one!

Technology

Advantage

Disadvantage

Assess Your Understanding



2a. **Define** What is an obsolete technology?

b. **Infer** Why do you think computer products become obsolete so quickly?

got it?


I get it! Now I know that technology progresses because

I need extra help with

Go to [my science .com](http://myscience.com) **COACH** online for help with this subject.




▶ What Are the Parts of a Technological System?

When you hear the word *system*, what comes to mind? Maybe you think of your school system, or perhaps the solar system. All systems are made of parts that work together.  A technological system includes a goal, inputs, processes, outputs, and in some cases, feedback.

All technological systems have a particular goal, or purpose. An input is something that is put into a system in order to reach that goal. The process is a sequence of actions that the system undergoes as it moves toward that goal. An output is a result or product. If the system works correctly, the output should match the goal. Some technological systems have an additional component called feedback. Feedback is information a system uses to monitor the input, process, and output so that the system can adjust itself to meet the goal. In Figure 5 you can see a familiar technological system—an oven. An oven is a system that includes feedback.

apply it!

A digital music player is an example of a technological system.

1  **Classify** Determine which of the descriptions below is the goal, the input, the process, and the output.

- a. _____ Push the Play button.
- b. _____ The digital file is converted to sound waves.
- c. _____ Listen to a song.
- d. _____ The player plays the song.

2 **Sequence** Write the letter of the steps in the correct order. _____

3 **CHALLENGE** Name a technological system that you use that includes feedback. _____

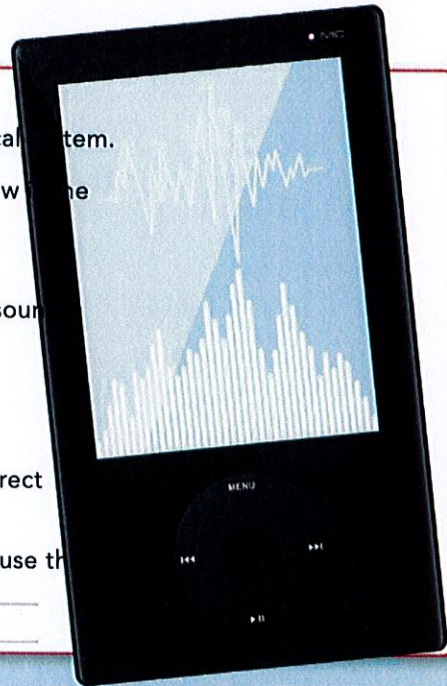


FIGURE 5.....

A System With Feedback

An oven is a technological system with a goal, inputs, processes, outputs, and feedback.

Evaluate Models and Systems Read each description. Above each description write the name of the system step it describes.



Do the Lab Investigation Investigating a Technological System.

Assess Your Understanding

3 **Review** How does a technological system adjust itself?

b. **Apply Concepts** An alarm clock is a technological system. Identify the output.

got it?

I get it! Now I know that the components of a technological system are _____

I need extra help with _____

Go to **my science** **COACH** online for help with this subject.

Review and Reinforce

Understanding Technology

Understanding Main Ideas
Answer the following questions in the spaces provided.

- 1. What is the purpose of technology?

- 2. How are the purposes of science and technology different?

- 3. What are two factors that cause technology to progress?

- 4. What are the components of a technological system?

Building Vocabulary
Match each term with its definition by writing the letter of the correct definition in the right column on the line beside the term in the left column.

- | | |
|-------------------|--|
| 5. ___ technology | a. a purpose |
| 6. ___ obsolete | b. the use of knowledge to solve practical problems |
| 7. ___ engineer | c. no longer used |
| 8. ___ goal | d. a person who uses both science and technology to solve problems |

Lesson Quiz

Understanding Technology

Write the letter of the correct answer on the line at the left.

1. ___ What do you call information a technological system uses to monitor and adjust itself to meet its goals?
A output
B process
C input
D feedback
2. ___ What is the goal of technology?
A to understand the natural world
B to improve how devices operate
C to improve how people live
D to understand how systems operate
3. ___ Technology no longer in use is said to be which of the following?
A current
B obsolete
C coexisting
D emerging
4. ___ What is another name for the purpose of a technological system?
A goal
B engineer
C process
D output

Fill in the blank to complete each statement.

5. A(n) _____ is made of parts that work together.
6. _____ technologies are those in use at the present time.
7. All technological systems include a(n) _____, inputs, processes, and outputs.
8. An engineer uses both _____ and technology to solve problems.
9. Technology is the use of _____ to solve practical problems.
10. Technologies that are just beginning to become widely available are called _____ technologies.

East Asia

Lesson 1: Physical Geography of East Asia

ESSENTIAL QUESTION

How does geography influence the way people live?

Terms to Know

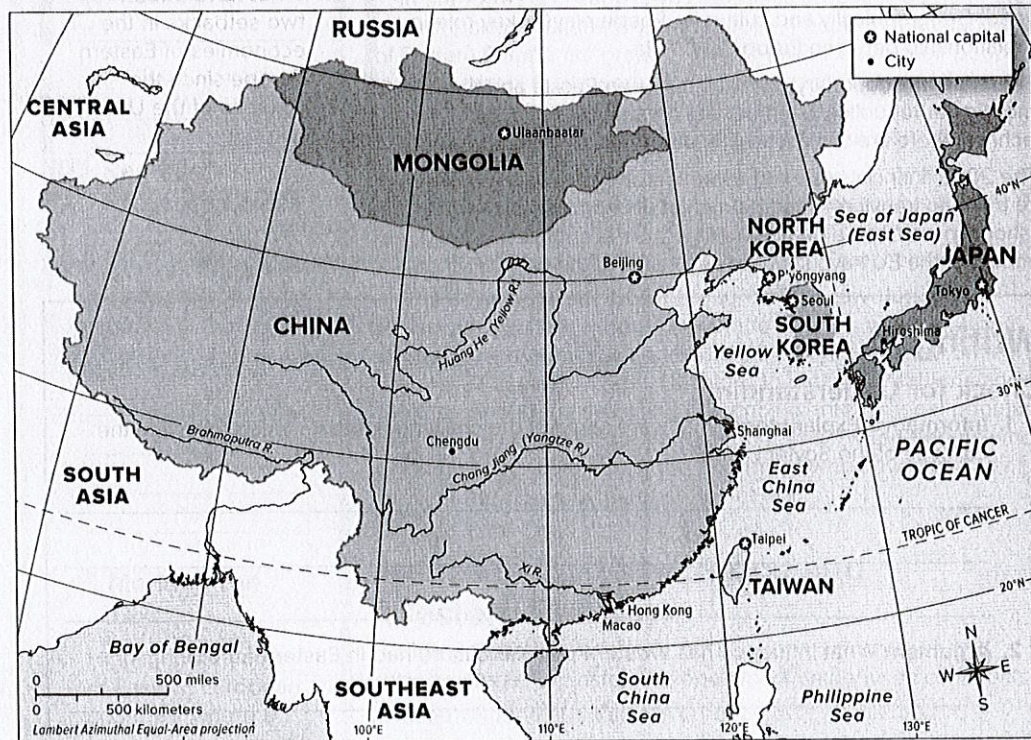
de facto actually; in reality

archipelago a group of islands

tsunami a giant ocean wave caused by an earthquake under the ocean floor

loess a fine-grained, fertile soil deposited by the wind

Where in the World: East Asia



East Asia

Lesson 1: Physical Geography of East Asia, *continued*

Landforms and Waterways

Guiding Question *What are the main physical features and physical processes in East Asia?*

East Asia is made up of six countries: China, Japan, Mongolia, North Korea, South Korea, and the de facto country of Taiwan. A **de facto** country is one that is not legally recognized. The region's largest country, China, is the world's fourth-largest country in land area.

Mainland East Asia, which includes China and Mongolia, can be divided into three subregions like steps. The highest step is the Plateau of Tibet. Much of it is more than 2.5 miles (4 km) above sea level. High mountains circle the plateau of Tibet. The Kunlun Shan range is on the north. On the south are the Himalaya, the tallest mountains in the world.

The middle step is north and east of Tibet and has lower mountains and plateaus. Much of the land to the north is desert or near desert. Land along the southern part is forested. There are deep canyons where the land descends from Tibet.

Low hills and plains form the third and lowest step, which covers most of the eastern third of China. Most Chinese people live on these plains.

In addition to the mainland, East Asia includes a large peninsula between the Yellow Sea and the Sea of Japan (East Sea). It is home to two countries, North Korea and South Korea. The peninsula is mountainous in the northeast. In the south and west, broad plains stretch between the mountains and the coast.

Japan is an **archipelago**, or chain of islands, along the eastern edge of the Sea of Japan. It is roughly 1,500 miles (2,414 km) long, and consists of four large islands and thousands of smaller ones. The islands of Japan are part of the Ring of Fire, which nearly encircles the Pacific Ocean. The islands were formed by volcanic eruptions millions of years ago. Mount Fuji, a beautiful, cone-shaped volcano, is a well-known symbol of Japan.

Japan is one of the most earthquake-prone countries in the world. When an earthquake occurs below or close to the ocean, it can cause a **tsunami**. This is a huge wave that gets higher as it approaches the coast. Tsunamis can wipe out coastal cities and towns.

Hundreds of miles southwest of Japan's main islands lies another large island, Taiwan. Like Japan, it was formed by volcanic activity. Mountains stretch the length of the island. On the western side of the island there is a gentler slope than on the steep eastern side. Broad plains spread across the western part of the island.

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Defining

1. What makes Taiwan a *de facto* country?



Identifying

2. What are the three geographic subregions of mainland East Asia?



Explaining

3. How did Japan's *archipelago* form?



Marking the Text

4. Read the text on the left. Highlight the names of the East Asian countries that are not found on the mainland.




Marking the Text

5. Underline the definition of a *tsunami*.

East Asia

Lesson 1: Physical Geography of East Asia, *continued*

 **Reading Progress Check**


6. What are some ways the people of East Asia depend on rivers?

 **Marking the Text**

7. Read the text on the right. Highlight the major factors that affect climates in East Asia.

 **Contrasting**

8. How do the climates of East Asia's island and peninsula areas differ from climates of the mainland areas?

 **Reading Progress Check**

9. How do the Himalaya affect the climate of the Plateau of Tibet?

Four seas sit along the eastern edge of East Asia. The South China Sea lies between southeastern China and Taiwan. The East China Sea lies between China and Japan. In the north, it meets the Yellow Sea, which is shaped by the Korean Peninsula and the northeastern coast of China. Farther north, Japan, the Korean Peninsula, and the Asian mainland nearly surround the Sea of Japan (East Sea).

East Asia's two most important rivers are the Huang He (Yellow River) and the Chang Jiang (Yangtze River). The Huang He gets its name from yellow-brown silt called **loess**. Silt deposited by floods has created a broad, fertile plain that has some of China's best farmland. These floods have also caused much damage and loss of life. The Chang Jiang is the longest river in Asia and China's principal waterway. It also provides water for rice farming.

Japan's major rivers are short, steep, and swift. Most of them generate hydroelectric power. The main rivers of the Korean Peninsula flow from inland mountains toward the Yellow Sea. North Korea's longest river, the Yalu, forms the country's border with China.

Climate

Guiding Question *What are the main factors that affect climate in different parts of East Asia?*

Climates in East Asia vary greatly because of several factors:

- **Latitude:** The region spans a great distance from north to south.
- **Elevation:** Two areas at the same latitude can have very different climates if one is higher than the other.
- **Air masses:** Cold, dry, polar air spreads from northern Asia in colder months. Warm, moist, tropical air spreads northward and eastward from the Pacific Ocean in warmer months.

Southeastern China is hot and rainy much of the year, with lush vegetation. To the north, there is more seasonal variation. Taiwan, Japan, and the Korean Peninsula are generally wetter and have milder temperatures than mainland areas at the same latitudes.

The climate in Mongolia and north-central and northwestern China is dry. Winters are bitterly cold. This region includes the Gobi Desert and the Taklimakan desert, as well as treeless grasslands.

The Plateau of Tibet in southwestern China also has a dry climate. The Himalaya block moist air flowing northward from the Indian Ocean. Because of the elevation, the plateau is cold and windy throughout the year.

East Asia

Lesson 1: Physical Geography of East Asia, *continued*

Natural Resources

Guiding Question *What mineral resources are most abundant in East Asia?*

China holds the greatest share of the region's resources. Japan is one of the world's leading industrial countries, but has few mineral resources. It must import many raw materials. Taiwan, another major industrial country, also has limited resources and must import minerals to meet demand.

Mineral Resources in East Asia	
China	tin, lead, zinc, iron ore, tungsten, other minerals
Japan	coal, copper, some iron ore, other minerals

The largest deposits of fossil fuels are in China. China is the world's largest producer of coal. It also has large oil and natural gas reserves under the South China Sea and in the Taklimakan desert in the far west. Despite these resources, China still cannot meet all of the energy needs of its growing economy. Both China and Japan use hydroelectric dams to produce electricity.

Eastern China was once covered by forests, but people cut trees down for heating, building, and to create farmland. Today, forests cover less than one-sixth of the country. More than half of Taiwan is covered in forests. However, much of the forested land is protected, so Taiwan must import wood. Almost two-thirds of Japan is forested. Logging is limited because the Japanese consider many forest areas to be sacred. In the Korean Peninsula, many trees have been cleared for farmland. About three-fourths of North Korea is forested.



Marking the Text

10. Highlight the names of two major industrial countries in East Asia that must import most of their raw materials.



Reading Progress Check

11. Why is it necessary for people in Taiwan and Japan to import wood products?

Writing

Check for Understanding

1. **Informative/Explanatory** Summarize the way mineral resources are distributed among the countries of East Asia.

East Asia

Lesson 2: History of East Asia

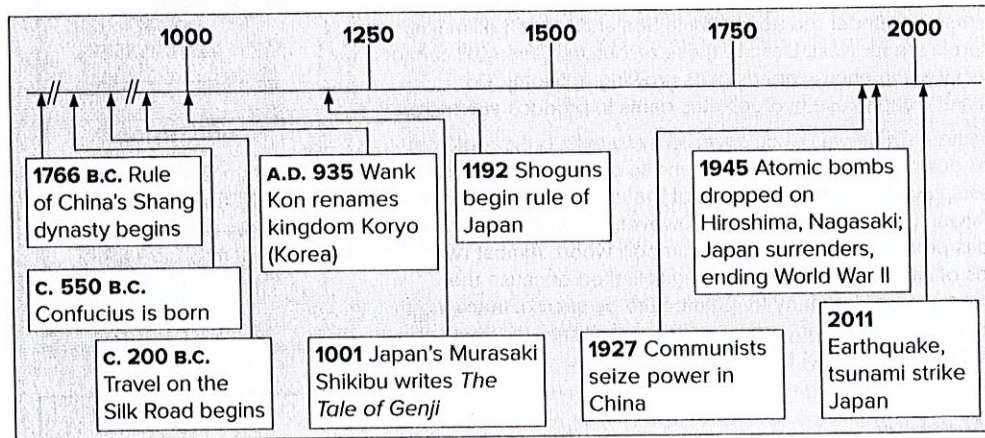
ESSENTIAL QUESTIONS

What makes a culture unique? • How do cultures spread?

Terms to Know

- dynasty** a line of rulers from a single family that holds power for a long time
- shogun** a military leader who ruled Japan in early times
- samurai** a powerful, land-owning warrior in Japan
- sphere of influence** area where a single foreign power has exclusive trading rights
- communism** a system in which the government controls the ways of producing goods

When did it happen?



Early East Asia

Guiding Question *What important inventions from East Asia spread across the rest of the world?*

Chinese civilization is over 4,000 years old. For many centuries until the early 1900s, emperors or empresses ruled China. A **dynasty**, or line of rulers, held power until it was overthrown. Then a new leader would start a new dynasty. Under the dynasties, China developed an advanced culture and conquered neighboring lands.

Defining

1. How did a new dynasty form?

East Asia

Lesson 2: History of East Asia, *continued*

The Chinese tried to keep out foreign invaders. Most of its borders were natural barriers such as seas, mountains, and deserts. To the north, the Chinese built the Great Wall for protection, beginning about 2,200 years ago. Over the centuries, it grew to stretch thousands of miles from the Yellow Sea in the east to the deserts in the west. It remains in place today.

A great thinker named Confucius believed in the importance of the family. He thought a ruler should lead as though he were the head of a family. He founded the belief system called Confucianism. Another thinker, Laozi, founded a belief system called Daoism. It taught that people should live in harmony with nature. A third belief system, Buddhism, came to China from India.

Under the Han dynasty (202 B.C.–A.D. 220), the arts and sciences flourished. The process of making paper was invented, and officials began keeping paper records. Han rulers encouraged trade along the Silk Road. This was a caravan route that stretched between China and Southwest Asia, into Europe and South Asia. The Chinese sent silk, tea, spices, paper, and fine porcelain west as far as the Mediterranean in exchange for wool, gold, and silver.

New inventions changed life for the Chinese people and became important around the world.

Chinese Inventions	
Printing	made producing books faster and easier
Gunpowder	used in explosives and fireworks
Magnetic compass	helped sailors find direction at sea

Korea was settled by people from northern Asia. In the 1200s, Mongols invaded China and Korea. They were driven out at the end of the 1300s and a new Korean dynasty came to power. It stayed in power until modern times. In the A.D. 300s Buddhism spread to Korea from China. Later, Confucianism became the major religion.

Korean writing used Chinese characters, and Korean artists and writers were inspired by Chinese art and literature. Korean rulers adopted Confucianism as a basis of government. In some periods China provided military protection, but in others Koreans feared Chinese invasion.

The Japanese islands were settled by people from Korea and China. Close ties with China led to a flow of ideas and culture that transformed Japan. The Japanese used the Chinese calendar and the Chinese system of writing. They adopted Chinese technology. Buddhism spread to Japan from Korea. There it mixed with a Japanese religion called Shinto.

 **Marking the Text**


- Highlight the names of three major belief systems that were important in China.

 **Drawing Conclusions**

- Besides physical goods such as silk and gold, what else might have been exchanged over the Silk Road?

 **Explaining**

- How did Buddhism spread across East Asia?

 **Reading Progress Check**

- What are some ways in which China influenced Japan?

East Asia

Lesson 2: History of East Asia, *continued***Analyzing**

6. What is the relationship between *samurai* and *shoguns*?

**Marking the Text**

7. Read the text on the right. Underline the sentence that explains what *spheres of influence* are.

**Reading Progress Check**

8. How was Korea affected by Japanese expansion?

**Marking the Text**

9. Read the text on the right. Underline the sentences that describe results of China's Great Leap Forward.

Japan was ruled by emperors. Over time, they began to lose power, and landowning families set up a feudal system. Under this system, nobles gave land to lesser nobles in exchange for their loyalty and military service. At the bottom of the social ladder were the peasants who farmed nobles' estates in exchange for protection. By the 1100s, a military leader called the **shogun** held the real power in Japan. He was supported by landowning warriors called **samurai**.

Change in East Asia

Guiding Question *How did increased contact with the West influence the region?*

Until the 1500s, East Asia was isolated from the rest of the world. By the 1890s, European governments and Japan had claimed large areas of China as **spheres of influence**. These are areas of a country where one foreign power has exclusive trading rights. Anger against foreign invaders helped lead to a revolution in 1911. By 1927, a new government was formed by the Nationalist Party, led by Chiang Kai-shek. The new government was challenged by Mao Zedong, who believed in **communism**, a system in which the government controls all means of production. After years of civil war, the Communists won power in 1949.

Around 1542, a Portuguese ship heading for China was blown off its course and landed in Japan. It was followed by more traders and Christian missionaries. By the early 1600s, Japan's rulers decided to isolate Japan. In 1854 the United States pressured the Japanese to open their country to foreign trade. Japan set out to transform itself into a modern industrial and military power and began to create an empire. By 1940, Japan controlled Taiwan, Korea, parts of mainland Asia, and some Pacific islands. This expansion was one reason that Japan fought the United States and its allies in World War II.

Modern East Asia

Guiding Question *What conflicts divided East Asian countries?*

After 1949, China became "two Chinas." On the mainland, the Communist government took over businesses and industry. It also took land and created state-owned farms. In the late 1950s, China introduced the Great Leap Forward to increase industrial output. Cities grew fast as peasants left the land to work in factories. A drop in food production and natural disasters led to widespread famine.

East Asia

Lesson 2: History of East Asia, *continued*

During China's Cultural Revolution in the 1960s, intellectuals and students were sent to the countryside to work in manual jobs. Mao hoped to get rid of cultural elements that did not support his idea of communism. After Mao's death in 1976, economic reforms have helped China become a rising global power.

Taiwan's government limited the freedom of the people. By 1970, however, its leaders had introduced democratic reforms and developed an economy based on capitalism. The island became an economic powerhouse.

"Two Chinas"	
<i>People's Republic of China</i>	<i>Republic of China</i>
<ul style="list-style-type: none"> • Communist government • Located on mainland 	<ul style="list-style-type: none"> • Nationalist government • Located on Taiwan

Following World War II, Korea was divided. South Korea was supported by the United States. Communist North Korea had ties to China and the Soviet Union. War between the two broke out in 1950 when North Korea invaded South Korea. The war ended in 1953. South Korea has followed capitalism and built a strong economy. North Korea's economy is controlled by the government. Its people face many hardships because most resources go to the military.

After being defeated in World War II, Japan lost its overseas territories and military might. The government worked closely with businesses to plan the country's economic growth. The Japanese became leading producers of ships, cars, cameras, and computers. By the 1990s, Japan was a global economic power.



Contrasting

10. How do North Korea and South Korea differ?



Reading Progress Check

11. What led to the growth of China's economy beginning in the 1970s?

Writing

Check for Understanding

1. **Informative/Explanatory** Why did Europeans want access to China and Japan?

2. **Informative/Explanatory** What led to the creation of "two Chinas"?

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East Asia

Lesson 3: Life in East Asia

ESSENTIAL QUESTIONS

Why do people trade? • How does technology change the way people live?

Terms to Know

urbanization growth of a city into nearby areas

megalopolis a huge city or cluster of cities with an extremely large population

trade deficit occurs when the value of a country's imports is higher than the value of its exports

trade surplus occurs when the value of a country's exports is higher than the value of its imports

What Do You Know?

In the first column, answer the questions based on what you know before you study. After this lesson, complete the last column.

Now . . .		Later . . .
	How have East Asia's cities changed in recent decades?	
	What belief systems do East Asians practice today?	
	What have been the effects of rapid economic growth in East Asia?	

? Identifying

1. What actions has China taken to slow the rate of population growth?

The People

Guiding Question *Which areas in East Asia have the highest population densities?*

Most people in East Asia live crowded together in river valleys, basins, deltas, or on coastal plains. The lands and climates there are favorable to agriculture and industry. These are some of the most densely populated areas on Earth.

China has had a large population for much of its history. By the middle of the 1900s, explosive population growth was causing many problems. In 1979, government policies encouraging families to have no more than one child helped slow China's growth. The 2010 census showed a population of 1.37 billion people. The east is much more densely populated than the west and northwest.

East Asia

Lesson 3: Life in East Asia, *continued*

Population growth in other parts of East Asia also slowed at the end of the 1900s. Japan's low birthrate means that the average age of the population has increased. Nearly one-fourth of the population is 65 or older. Since the mid-1990s, Japan has encouraged more births. Soon the country could face a shortage of workers and have to allow more foreign workers into the country.

Throughout China's history, most of its people lived off the land as farmers. Economic reforms in the late 1970s, however, caused a surge of **urbanization**. Millions of peasants left their farms and moved to cities. Today, nearly half of the country's people live in cities. Shanghai is China's largest city. There are dozens of Chinese cities with population greater than 1 million.

Shanghai	11 million
Beijing	7 million
Hong Kong	5 million

Urbanization began earlier in other East Asian countries. In Japan, two-thirds of the people live in cities. The cities of Tokyo, Osaka, Nagoya, and Yokohama form a **megalopolis**, or supersized urban area, along the coast. Greater Tokyo, Japan's largest city, is home to 32 million people. As South Korea industrialized, more people moved to cities. Now, 83 percent of South Koreans live in urban areas. The capital, Seoul, has more than 10 million people. Across East Asia, the standard of living in cities is generally higher than that in rural areas.

Culture in East Asia

Guiding Question *What are some of the cultural differences among East Asian countries?*

In each East Asian country, most people are ethnically similar and speak the national language. The official language in China is Mandarin, but many dialects are spoken.

People practice many religions and belief systems. Buddhism is practiced throughout the region, often alongside other religions. The governments of China and North Korea limit religious practice, believing that religion has no place in a communist country. In recent decades this policy has been relaxed somewhat in China.

A number of art forms have long been popular in East Asia. Artists in China, Korea, and Japan paint the rugged landscapes of their countries. Their works reflect a special reverence for nature.

? Describing

2. How is Japan trying to compensate for the rise in the average age of its people?

A/C Defining

3. What caused China's rapid *urbanization*?

Pencil Marking the Text

4. Read the text on the left. Highlight the names of the cities that make up Japan's *megalopolis*.

✓ Reading Progress Check

5. How can a country's growth rate influence its economy?

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East Asia

Lesson 3: Life in East Asia, *continued*

? Identifying

6. What is calligraphy?

⚙ Analyzing

7. How have East Asian and Western popular culture influenced each other?

✎ Marking the Text

8. Highlight the names of two American sports that are popular in East Asia in yellow. Highlight the names of two popular Asian sports in blue.

✓ Reading Progress Check

9. Why is religious activity limited in China?

Ceramics and pottery have been important parts of East Asian art since prehistoric times. Weaving, carving, and lacquerwork are also important. In China and Japan, calligraphy—the art of turning the written word into beautiful images—is considered one of the highest art forms. East Asians have strong literary and theatrical traditions. Japan and China are famous for their traditional forms of theater.

East Asians have also developed new forms of expression. Today, Japan is known for anime, a type of animation. Comic books and cartoons using this style are popular all over the world. South Korean “K-pop” music is popular with the young in Japan and other countries. It has its roots in dance and electronic music from the West.

People in East Asia enjoy many pastimes. Millions practice traditional martial arts such as tai chi and tae kwon do. American baseball is popular in Japan, Taiwan, and South Korea. American basketball is a top sport in China.

The family has traditionally been the center of social life in East Asia. In rural areas, different generations of one family may share a home. As more people have moved into urban areas, some traditional attitudes have begun to change. East Asian cultures place a high value on education. Teachers are respected, and children are expected to work hard.

Rice and noodles are staples in the diets of most East Asians, but cuisine varies widely in the region. There are many varieties of Chinese cooking. Japanese foods often include seafood and tofu. Mongolian meals often feature meat and dairy products.

Holidays are important in East Asia. Families gather to remember ancestors and celebrate on New Year’s in Japan and China (where it is called Spring Festival). In Korea the Harvest Moon Festival is similar to Thanksgiving in the United States.

Current Issues in East Asia

Guiding Question *How do East Asian economies affect economies around the world?*

Recent rapid economic growth has transformed East Asia. Today, only the United States has a larger economy than China and Japan. With growth have come problems. In China, factories, coal-burning power plants, and the growing number of cars and trucks have led to air pollution. Rapid urban growth has eaten up valuable farmland, and many cities face water shortages.

East Asia

Lesson 3: Life in East Asia, *continued*

Japan has similar issues. Polluted air has caused acid rain and other problems, but Japan has tried to protect the environment. Earthquakes are a constant threat. In 2011 an earthquake in Japan killed thousands of people and damaged several nuclear power plants. It disrupted trade and manufacturing around the world.

Many of the goods manufactured in East Asia are shipped to the United States and Europe. Trade between China and the United States is not balanced. In 2010 the U.S. trade deficit with China rose to \$273 billion.

trade surplus
occurs when a country **exports** more than it **imports**

trade deficit
occurs when a country **imports** more than it **exports**

Japan and China have tried to address the challenges of population growth. However, China has fewer young adult workers due to its "one-child" policy. To fix this, in 2015 the Chinese government began allowing families to have two children.

Political differences are another challenge. Japan is in dispute with Russia over ownership of the Kuril Islands north of Japan. North Korea's efforts to build nuclear weapons have drawn harsh criticism from several countries. Both China and North Korea face questions about human rights. China continues to be pressured for its views on Tibet and Taiwan. China also faces a growing income gap between people in urban and rural areas.

? Identifying

10. Give two reasons why North Korea has faced international criticism.

✓ Reading Progress Check

11. How might an earthquake in Japan affect the economies of other parts of the world?

Writing

Check for Understanding

1. **Informative/Explanatory** What effects might urbanization have on traditional family life in East Asia?

2. **Informative/Explanatory** What negative effects has economic growth had in East Asia?

At Home Power Point!

DIRECTIONS: Make sure that all the information is included in the slide show!

For your topic: Choose a famous person from Europe or Asia!

I will provide usernames and passwords next week so students can begin their slide show!

SLIDE 1: Who is the person that you chose? (A picture)

SLIDE 2: Where is the person from? When was the person born?

SLIDE 3: THREE facts about the person's family...

SLIDE 4: THREE things that your person did at a young age

SLIDE 5: TWO jobs that your person had at some point

SLIDE 6: What is your person doing right now?

SLIDE 7: Why is your person recognized as being famous?

SLIDE 8: How much money is the person worth?

SLIDE 9: What are TWO charities that your person has contributed to?

SLIDE 10: Pictures of the person's company or what they are doing

SLIDE 11: Do you think this person should be famous? 1 reason why or why not?

SLIDE 12: Is this person famous in The United States?



Scripps National Spelling Bee

Vocabulary List for Difficulty Level Two Bee

2019-2020

1.	disembark	<i>(verb)</i>	to leave or go ashore from a ship.
2.	earthquake	<i>(noun)</i>	a trembling or shaking of the earth that accompanies crustal movements.
3.	brought	<i>(verb)</i>	conveyed or carried along from one place to another.
4.	gallop	<i>(noun)</i>	the natural three-beat gait of a horse.
5.	dinosaur	<i>(noun)</i>	a member of a group of extinct reptiles.
6.	ancient	<i>(adjective)</i>	existing from a long ago period or date.
7.	tapestry	<i>(noun)</i>	a heavy textile woven by hand used for hangings or curtains.
8.	delivery	<i>(noun)</i>	an instance of the physical transfer of a shipment.
9.	attagirl	<i>(interjection)</i>	— used to express encouragement or approval to a woman or girl.
10.	salamanders	<i>(plural noun)</i>	various small amphibians that resemble lizards but don't have scales, are covered with a soft moist skin, live in moist dark places, pose no harm to humans, and feed on small animals such as aquatic worms and insects.
11.	usual	<i>(adjective)</i>	in accordance with the normal custom, usage or habit.
12.	challenge	<i>(noun)</i>	a thing which one can devote energy or effort to.
13.	cahoots	<i>(plural noun)</i>	secret agreement : collusion.
14.	oozing	<i>(verb)</i>	moving slowly or without notice.
15.	Mars	<i>(noun)</i>	the planet that is fourth from the sun and is noted for its apparent red color.
16.	pelican	<i>(noun)</i>	a large web-footed bird with long wings and a very large bill having a throat pouch in which it catches fish.
17.	drastic	<i>(adjective)</i>	notably vigorous or severe.
18.	yoga	<i>(noun)</i>	a group of exercises for achieving well-being and control of mind and body.
19.	burlap	<i>(noun)</i>	a coarse heavy plain-woven fabric typically made from hemp or jute that is used for bagging and wrapping items.
20.	blazer	<i>(noun)</i>	a single-breasted sports jacket usually with bright stripes or in a solid color that has a notched collar and patch pockets.
21.	trombone	<i>(noun)</i>	a brass instrument that consists of a long cylindrical metal tube that ends in a bell and has a movable slide which makes musical sounds.
22.	trembling	<i>(verb)</i>	quaking due to fear or another emotion.
23.	calmed	<i>(verb)</i>	made peaceful : induced quiet and peace in place of agitation or passion.
24.	police	<i>(noun)</i>	the department of the government which is concerned with maintaining public order, safety and health, and which has the power to enforce laws.
25.	certain	<i>(adjective)</i>	given to or marked by complete conviction and assurance.
26.	barograph	<i>(noun)</i>	an automatic instrument which is used to record variations in atmospheric pressure.



This list includes 225 challenging upper elementary words. If you learn the spellings and meanings of these words, you will be well prepared for your classroom bee. If you would like to be well prepared for a school spelling bee, ask your teacher for the 450-word School Spelling Bee Study List, which includes the words listed here in addition to the words at the One Bee and Three Bee levels of difficulty.

27.	charred	<i>(verb)</i>	partly burned on the outside.
28.	Pakistan	<i>(geographical entry)</i>	a country in southern Asia which borders the Arabian Sea.
29.	pressure	<i>(noun)</i>	the burden of mental or physical distress.
30.	surmised	<i>(verb)</i>	guessed : formed an opinion without substantial proof or certain knowledge.
31.	teak	<i>(noun)</i>	the hard, strong, durable, yellowish brown wood of a tall East Indian timber tree which is highly resistant to insect attack and warping and is used for shipbuilding.
32.	transit	<i>(noun)</i>	the public transportation of people by bus, subway train or other local system of conveyance.
33.	cannonade	<i>(noun)</i>	a noisy persistent attack (as of questions).
34.	appetite	<i>(noun)</i>	the desire to eat when food is available.
35.	luggage	<i>(noun)</i>	suitcases, bags used for travel or other articles used to carry a traveler's belongings.
36.	ramparts	<i>(plural noun)</i>	protective barriers.
37.	vinyl	<i>(noun)</i>	any of a group of tough durable plastics based on resins that are used especially in the forming of films and sheeting, flooring, and sound records.
38.	anemometers	<i>(plural noun)</i>	tools used to gauge the speed of the wind.
39.	dainty	<i>(adjective)</i>	characterized by beauty that is delicate in nature.
40.	buckle	<i>(verb)</i>	to secure two loose ends of something (such as a belt) with one end having a fastening and the other a catch.
41.	vividly	<i>(adverb)</i>	intensely, sharply, keenly.
42.	briny	<i>(adjective)</i>	salty.
43.	pavement	<i>(noun)</i>	the surface of a public thoroughfare which is artificially covered.
44.	garnet	<i>(noun)</i>	a brittle material which is typically red in color and occurs mainly in crystals.
45.	furrow	<i>(verb)</i>	to cultivate or till as if with a plow.
46.	sprawl	<i>(verb)</i>	to lie or sit with arms and legs stretched out : to spread out.
47.	museum	<i>(noun)</i>	a building or institution which is devoted to the gathering, care, study and display of objects of lasting interest and value.
48.	wren	<i>(noun)</i>	any of various small brown singing birds.
49.	legend	<i>(noun)</i>	someone having a special status as a result of possessing extraordinary qualities that are typically partly real and partly mythical.
50.	transistor	<i>(noun)</i>	an electronic device made of a small block of a semiconductor with three electrodes on it and that conducts electrons moving in one direction to the opposite direction.



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51.	amplify	<i>(verb)</i>	to expand, extend or enlarge a statement or idea by adding details or illustration.
52.	security	<i>(noun)</i>	freedom from care, anxiety or fear.
53.	refrain	<i>(noun)</i>	a phrase or verse that recurs regularly typically within a poem or song.
54.	tactics	<i>(plural noun)</i>	methods : systems of procedure.
55.	shepherd	<i>(noun)</i>	a man employed in tending, feeding and guarding sheep.
56.	Angus	<i>(noun)</i>	any of a breed of hornless black or red beef cattle originally from Scotland.
57.	mulish	<i>(adjective)</i>	stubborn, inflexible or uncompromising.
58.	rivalry	<i>(noun)</i>	competition.
59.	siblings	<i>(plural noun)</i>	two or more people with the same parents.
60.	chestnut	<i>(noun)</i>	any of a genus of deciduous trees or shrubs native to temperate regions of the northern hemisphere that have a fruit consisting of a single nut.
61.	minivan	<i>(noun)</i>	a small multipurpose vehicle with rear or side doors and side panels with windows that is used to transport passengers.
62.	plaid	<i>(adjective)</i>	having a cross-barred multicolored pattern.
63.	tissue	<i>(noun)</i>	an aggregate of cells together with their intercellular substance that form one of the structural materials out of which the body of a plant or an animal is made.
64.	scoundrel	<i>(noun)</i>	a bold selfish person who is equipped with low ethical standards.
65.	amino	<i>(adjective)</i>	relating to or containing the group NH ₂ united to a radical other than an acid radical.
66.	menthol	<i>(noun)</i>	an alcohol that occurs naturally in peppermint oil and Japanese mint oil and can be made artificially.
67.	Tabasco	<i>(trademark)</i>	– used for a condiment sauce made from capsicum berries.
68.	obvious	<i>(adjective)</i>	easily perceived by the mind.
69.	pulse	<i>(noun)</i>	a regular wave of distension in the arteries that is a result of blood progressing through an artery at each contraction of the ventricles of the heart.
70.	cottage	<i>(noun)</i>	a small house typically used in the summer.
71.	garland	<i>(noun)</i>	a wreath of leaves or flowers that is worn on the head or used for decoration.
72.	gnaw	<i>(verb)</i>	to bite or chew on with the teeth.
73.	comfort	<i>(noun)</i>	enjoyment in physical or mental well-being.
74.	caroling	<i>(verb)</i>	traveling outside in a group to sing Christmas songs on Christmas Eve.
	OR carolling		



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75.	foolishness	<i>(noun)</i>	the state of lacking seriousness : folly.
76.	constellation	<i>(noun)</i>	any of the 88 configurations of stars.
77.	sundering	<i>(verb)</i>	breaking or forcing apart.
78.	juncture	<i>(noun)</i>	a seam or joint.
79.	exploits	<i>(verb)</i>	takes undue advantage of.
80.	rabble-rouser	<i>(noun)</i>	a person who stirs up the masses of the people (such as to violence or hatred).
81.	profound	<i>(adjective)</i>	hard to understand or comprehend.
82.	wreath	<i>(noun)</i>	a crown or band of intertwined flowers or leaves worn or given as a mark of honor.
83.	profile	<i>(noun)</i>	a representation of something in outline.
84.	untoward	<i>(adjective)</i>	unfortunate or unlucky.
85.	memorial	<i>(adjective)</i>	commemorative.
86.	industrial	<i>(adjective)</i>	of or belonging to a department of a craft, business or manufacture.
87.	barrier	<i>(noun)</i>	an object or objects that serve to separate or keep items apart.
88.	gratingly	<i>(adverb)</i>	with an irritating or harsh effect or sound.
89.	brayed	<i>(verb)</i>	made a loud harsh cry — used of a donkey.
90.	Harlem	<i>(geographical entry)</i>	section of New York City in northern Manhattan that was a center of African American culture in the 1920s.
91.	messenger	<i>(noun)</i>	someone who delivers a written or oral communication : a courier.
92.	beacons	<i>(plural noun)</i>	fires placed on a hill or tower that are used to communicate signals.
93.	generation	<i>(noun)</i>	development, rise.
94.	coverage	<i>(noun)</i>	the amount of reporting given to a news event.
95.	deters	<i>(verb)</i>	turns aside or discourages from acting.
96.	Nepal	<i>(geographical entry)</i>	landlocked country in Asia in the Himalayas on the northeast border of India.
97.	disinfectant	<i>(noun)</i>	a chemical used to destroy vegetative forms of damaging microorganisms.
98.	campaign	<i>(noun)</i>	a period of continuous and often competitive activity in any seasonal occupation or industry.
99.	starvation	<i>(noun)</i>	the instance of suffering from extreme hunger.
100.	gamma	<i>(noun)</i>	the third letter of the Greek alphabet.
101.	spleen	<i>(noun)</i>	an abdominal organ that plays a role in the maintenance of blood volume, the production of blood cells, the recovery of material from worn-out blood cells and the production of antibodies.



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102.	utensils	<i>(plural noun)</i>	tools or instruments used in a kitchen.
103.	depot	<i>(noun)</i>	a bus station.
104.	incident	<i>(noun)</i>	an uncommon happening.
105.	brambles	<i>(plural noun)</i>	prickly and rough vines or shrubs.
106.	trifecta	<i>(noun)</i>	a bet in which the bettor selects the first, second and third finishers in a contest or race in the correct order.
107.	shingle	<i>(noun)</i>	coarse and rounded detritus found on the seashore and which is different from regular gravel due to its large size.
108.	mason	<i>(noun)</i>	a skilled artisan who builds using stone, brick or concrete.
109.	avoid	<i>(verb)</i>	to stay clear of : to keep away from.
110.	static	<i>(adjective)</i>	stable, stagnant.
111.	samples	<i>(plural noun)</i>	portions to represent a whole.
112.	modern	<i>(adjective)</i>	contemporary : relating to the present time.
113.	chalk	<i>(noun)</i>	the prepared form of a soft limestone, earthy in texture and white, gray or buff in color used for marking or drawing.
114.	concentrate	<i>(verb)</i>	to bring all one's powers, faculties or activities to bear.
115.	proud	<i>(adjective)</i>	elated : highly pleased.
116.	expiration	<i>(noun)</i>	termination, close, extinction.
117.	batteries	<i>(plural noun)</i>	level of enthusiasm or energy.
118.	centuries	<i>(plural noun)</i>	time spans of 100 years.
119.	differed	<i>(verb)</i>	varied : changed from time to time.
120.	fearsome	<i>(adjective)</i>	arousing from fright or terror.
121.	fiercest	<i>(adjective)</i>	characterized by the most furious unrestrained vehemence or zeal.
122.	residence	<i>(noun)</i>	the place where one lives or has their home.
123.	abated	<i>(verb)</i>	lessened : decreased in force.
124.	scattering	<i>(verb)</i>	spreading widely and randomly by throwing about.
125.	toppled	<i>(verb)</i>	tumbled down : fell from top-heaviness.
126.	vane	<i>(noun)</i>	a movable device used to show the direction of the wind.
127.	vortices	<i>(plural noun)</i>	tornadoes : quickly moving and spiraling columns of air.
128.	turbulent	<i>(adjective)</i>	tempestuous or stormy.
129.	obstacles	<i>(plural noun)</i>	things that hinder progress or stand in the way.



This list includes 225 challenging upper elementary words. If you learn the spellings and meanings of these words, you will be well prepared for your classroom bee. If you would like to be well prepared for a school spelling bee, ask your teacher for the 450-word School Spelling Bee Study List, which includes the words listed here in addition to the words at the One Bee and Three Bee levels of difficulty.

130.	continental	<i>(adjective)</i>	being the portion of the United States located on the continent of North America.
131.	deportment	<i>(noun)</i>	behavior or conduct.
132.	exhibits	<i>(plural noun)</i>	exhibitions or displays.
133.	agricultural	<i>(adjective)</i>	relating to or used in the science or art of working the soil, harvesting crops and raising livestock.
134.	momentous	<i>(adjective)</i>	weighty : of great importance.
135.	disturbance	<i>(noun)</i>	an interruption of quiet or peace.
136.	wily	<i>(adjective)</i>	crafty : full of deceitful cunning.
137.	rookie	<i>(noun)</i>	a member who is new to an athletic team.
138.	transparencies	<i>(plural noun)</i>	matters for displaying which are made on glass, thin cloth, paper or film and which are viewed by the help of light shining through the matter.
139.	hazmat	<i>(noun)</i>	a substance that is shipped and which would be dangerous to life or the environment if released without proper precaution.
140.	Antarctic	<i>(adjective)</i>	relating to the South Pole or the region surrounding it.
141.	perfume	<i>(noun)</i>	a fluid containing essences of flowers or synthetics which is used for its scent.
142.	plaiting	<i>(noun)</i>	braiding : the interweaving of three or more strands of hair.
143.	writers	<i>(plural noun)</i>	people who practice the act of literary or journalistic composition in words as a job.
144.	series	<i>(noun)</i>	a group of three or more things or events succeeding in order and having a relationship to each other.
145.	audience	<i>(noun)</i>	those present at a stage or film production or viewing of a televised program.
146.	insubstantial	<i>(adjective)</i>	imaginary : lacking substance.
147.	staggered	<i>(verb)</i>	swayed or tottered when standing or walking.
148.	assistance	<i>(noun)</i>	aid given to the needy, usually in monetary form.
149.	sanitized	<i>(verb)</i>	made hygienic through sterilization or cleaning.
150.	diminished	<i>(verb)</i>	decreased.
151.	organist	<i>(noun)</i>	someone who plays any of several large musical instruments which produce sustained tones by means of a keyboard.
152.	operator	<i>(noun)</i>	someone in charge of a telephone switchboard.



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153.	Louisiana	<i>(geographical entry)</i>	a state in the southern United States.
154.	perpetual	<i>(adjective)</i>	constant or indefinitely.
155.	blustery	<i>(adjective)</i>	stormy.
156.	molars	<i>(plural noun)</i>	teeth which are adapted for grinding due to having rounded or flattened surfaces.
157.	arrange	<i>(verb)</i>	to put in the correct or desired order.
158.	dissolved	<i>(verb)</i>	passed into an act by which a solid, liquid or gaseous substance is mixed typically with a liquid.
159.	extremely	<i>(adverb)</i>	in an intense manner.
160.	plastic	<i>(noun)</i>	any of a large group of materials of high molecular weight that usually contain a synthetic or semisynthetic organic substance, that are molded into objects of all sizes and shapes.
161.	multiplication	<i>(noun)</i>	a mathematical operation in which the first number is repeated as many times as there are units in the second number.
162.	middle	<i>(noun)</i>	the part halfway between two points.
163.	reasonable	<i>(adjective)</i>	not absurd or ridiculous : being in agreement with right thinking.
164.	closet	<i>(noun)</i>	a recess or cabinet used to hold china, clothing or other utensils.
165.	investigation	<i>(noun)</i>	study or research.
166.	accident	<i>(noun)</i>	an event that occurs by chance.
167.	discussion	<i>(noun)</i>	a consideration of a question typically occurring in informal debate.
168.	confused	<i>(verb)</i>	confounded : failed to distinguish between two or more parties.
169.	microwave	<i>(verb)</i>	to cook or heat food in an oven that prepares the food with short electromagnetic waves.
170.	gabled	<i>(adjective)</i>	furnished with the vertical triangular portion of the end of a building.
171.	settle	<i>(verb)</i>	seat : to cause to sit.
172.	somber	<i>(adjective)</i>	dejected in appearance or mood : gloomy.
	OR sombre		
173.	tampered	<i>(verb)</i>	interfered with so as to change for the worse.
174.	loyal	<i>(adjective)</i>	devoted to a person : faithful.
175.	remarkable	<i>(adjective)</i>	worthy of being noticed.
176.	joists	<i>(plural noun)</i>	the small timbers or iron or steel beams that are arranged in a parallel fashion stretching from wall to wall in a building.
177.	scrambling	<i>(verb)</i>	moving with urgency.



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178.	inspector	<i>(noun)</i>	a police officer ranking below a superintendent.
179.	distressed	<i>(adjective)</i>	overcome with pain or grief.
180.	smudge	<i>(noun)</i>	a splotch or smear.
181.	throttle	<i>(verb)</i>	to choke : to stop the breathing of by any means.
182.	perfection	<i>(noun)</i>	flawlessness : freedom from defect.
183.	capable	<i>(adjective)</i>	marked by general efficiency and by adequate resourcefulness, skill and reliability.
184.	gadgets	<i>(plural noun)</i>	typically small devices that are often considered novelties and that are found especially on pieces of machinery.
185.	channel	<i>(noun)</i>	a band of frequencies able to accommodate a single television or radio communication.
186.	chisel	<i>(noun)</i>	a tool consisting of a metal bar with a sharpened edge at one end used for working on the surface of materials by chipping or carving.
187.	chimney	<i>(noun)</i>	a vertical structure incorporated into a building that carries off smoke, fumes or gases.
188.	minnow	<i>(noun)</i>	a very small fish that can grow up to three inches long and that is common in streams.
189.	domain	<i>(noun)</i>	a large subdivision of the Internet denoted by an abbreviation consisting of computers or sites with a common purpose or a common location.
190.	shuffle	<i>(verb)</i>	to slide the feet back and forth without lifting them.
191.	carpenter	<i>(noun)</i>	a person whose career is to build or repair with wood.
192.	pruners	<i>(plural noun)</i>	a tool which is used to remove dead branches or leaves from vegetation.
193.	parcel	<i>(noun)</i>	a package.
194.	squawk	<i>(verb)</i>	to emit a loud harsh cry.
195.	Sheetrock	<i>(trademark)</i>	— used to describe a plasterboard formed of gypsum between two surfaces of hard paper.
196.	trowel	<i>(noun)</i>	a hand tool with a blade that is used to apply, spread, shape and smooth any loose material.
197.	nervous	<i>(adjective)</i>	originating in or affected by the nerves.
198.	spirit	<i>(noun)</i>	any supernatural being such as an apparition or elf.
199.	equator	<i>(noun)</i>	the circle of the celestial sphere whose plane runs perpendicular to the axis of Earth.
200.	evidence	<i>(noun)</i>	something submitted legally to a tribunal as a means of realizing the truth of any alleged matter of fact under investigation before it.
201.	solar	<i>(adjective)</i>	related to the sun and its effects on Earth and other planets.
202.	explore	<i>(verb)</i>	to search or look into.
203.	distance	<i>(noun)</i>	the amount of separation between two points.
204.	fault	<i>(noun)</i>	responsibility for failure.



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205.	colonists	<i>(plural noun)</i>	someone who settles in a new country.
206.	prudence	<i>(noun)</i>	wisdom shown in the exercise of self-control and reason.
207.	assembly	<i>(noun)</i>	a meeting scheduled for an entire student body and faculty of a school held for recreational, administrative or educational reasons.
208.	sheriff	<i>(noun)</i>	an important county officer in the United States who is typically elected by the people.
209.	tarry	<i>(verb)</i>	to dawdle or procrastinate.
210.	entity	<i>(noun)</i>	something that has an objective or physical reality and distinct character.
211.	archives	<i>(plural noun)</i>	repositories for documents of historical value.
212.	commotion	<i>(noun)</i>	noisy confusion.
213.	vacancy	<i>(noun)</i>	an empty office or post.
214.	beatboxing	<i>(noun)</i>	a musical style comprised of solo vocal imitation of percussion.
215.	mutate	<i>(verb)</i>	to undergo a significant alteration.
216.	commonplace	<i>(noun)</i>	a comment or remark lacking in originality.
217.	gingerbread	<i>(noun)</i>	a cake made with molasses and ginger which is then cut in fancy shapes and frosted.
218.	dispute	<i>(verb)</i>	to wrangle : to argue with persistence.
219.	episode	<i>(noun)</i>	a part of a television or radio serial presented in one period.
220.	confection	<i>(noun)</i>	a delicacy.
221.	autographs	<i>(plural noun)</i>	handwritten signatures.
222.	petite	<i>(adjective)</i>	little or small.
223.	station	<i>(noun)</i>	a post or position of duty.
224.	withers	<i>(plural noun)</i>	the ridge on a horse that falls between the shoulder bones.
225.	hunky-dory	<i>(adjective)</i>	fine.

Spelling Bee Study Guide

Ms. Ritz

*Test date April 10, 2020

1. Gallop
2. Pelican
3. Dainty
4. Museum
5. Tissue
6. Obvious
7. Foolishness
8. Utensils
9. Samples
10. Fearsome
11. Obstacles
12. Rookie
13. Perfume
14. Audience
15. Diminished
16. Middle
17. Dissolved
18. Settle
19. Chimney
20. Equator

Unscramble each of the words.

Gallop	Pelican	Dainty	Museum
Tissue	Obvious	Foolishness	Utensils
Samples	Fearsome	Obstacles	Rookie
Perfume	Audience	Diminished	Dissolved
Middle	Settle	Chimney	Equator

Answers

- 1) allogg _____
- 2) sodvlised _____
- 3) selett _____
- 4) upmfere _____
- 5) meuusm _____
- 6) ielapcn _____
- 7) qretaou _____
- 8) yidnat _____
- 9) luisestn _____
- 10) seuits _____
- 11) iidhiesndm _____
- 12) nhicyme _____
- 13) uvosoib _____
- 14) olnfsosehis _____
- 15) lidmed _____
- 16) aepsmsl _____
- 17) orekio _____
- 18) ueaicdne _____
- 19) eearmsfo _____
- 20) stoelscba _____

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____

Find each word.

Gallop	Pelican	Dainty	Museum
Tissue	Obvious	Foolishness	Utensils
Samples	Fearsome	Obstacles	Rookie
Perfume	Audience	Diminished	Dissolved
Middle	Settle	Chimney	Equator

N W T X M S A D R D C G G H F
 P E L I C A N S E K D A A L W
 R Q F Y S H P V E E U X L M Z
 N O C F O Q L A H T S S L U J
 V D O G E O S S U S T X O S T
 B R A K S A I A E D J L P E I
 E I R S I N R N M Q I K E U S
 Q P I Q I E H S P P E E W M S
 U D Z M A S Y S O E L X N B U
 A T I S I E U P Z M R E C C E
 T D W L N O X E V G E F S Y E
 O Y O M I D A I N T Y X U B T
 R O I V M I D D L E R W X M G
 F H B E O B S T A C L E S G E
 C O A X J Q D U T E N S I L S

Order the words from A to Z.

Obstacles	Perfume	Museum	Obvious
Audience	Middle	Pelican	Equator
Dainty	Dissolved	Diminished	Settle
Samples	Gallop	Chimney	Rookie
Utensils	Foolishness	Tissue	Fearsome

Answers

1) _____

2) _____

3) _____

4) _____

5) _____

6) _____

7) _____

8) _____

9) _____

10) _____

11) _____

12) _____

13) _____

14) _____

15) _____

16) _____

17) _____

18) _____

19) _____

20) _____

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

16. _____

17. _____

18. _____

19. _____

20. _____

Fill in the missing letters to create words from your spelling list.

Gallop	Pelican	Dainty	Museum
Tissue	Obvious	Foolishness	Utensils
Samples	Fearsome	Obstacles	Rookie
Perfume	Audience	Diminished	Dissolved
Middle	Settle	Chimney	Equator

Answers

- 1) _ i _ i _ i _ h e _
- 2) m u s _ u _
- 3) p e _ _ _ m e
- 4) _ a _ n _ y
- 5) o _ _ _ _ l e s
- 6) s e t _ _ e
- 7) _ _ o k i _
- 8) _ _ d d _ e
- 9) _ e _ r _ o m e
- 10) _ a _ p l _ _
- 11) _ o o _ i _ _ n e _ s
- 12) _ b v _ o _ _
- 13) e _ u a _ o _
- 14) _ i s _ _ _ v e d
- 15) _ i s s u _
- 16) _ a l _ o p
- 17) p _ l _ _ a _
- 18) _ t _ _ s _ l s
- 19) _ u _ i _ n _ e
- 20) c _ _ _ n _ y

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____

Define each word.

Gallop
Tissue
Samples
Perfume
Middle

Pelican
Obvious
Fearsome
Audience
Settle

Dainty
Foolishness
Obstacles
Diminished
Chimney

Museum
Utensils
Rookie
Dissolved
Equator

1) Audience (Part of Speech) _____

2) Samples (Part of Speech) _____

3) Museum (Part of Speech) _____

4) Obstacles (Part of Speech) _____

5) Equator (Part of Speech) _____

6) Perfume (Part of Speech) _____

7) Obvious (Part of Speech) _____

8) Pelican (Part of Speech) _____

9) Settle (Part of Speech) _____

10) Middle (Part of Speech) _____

11) Fearsome (Part of Speech) _____

12) Foolishness (Part of Speech) _____

13) Dainty (Part of Speech) _____

14) Dissolved (Part of Speech) _____

15) Chimney (Part of Speech) _____

16) Tissue (Part of Speech) _____

17) Diminished (Part of Speech) _____

18) Rookie (Part of Speech) _____

19) Gallop (Part of Speech) _____

20) Utensils (Part of Speech) _____

Write each word 4 times (twice lowercase, twice UPPERCASE).

Gallop	Pelican	Dainty	Museum
Tissue	Obvious	Foolishness	Utensils
Samples	Fearsome	Obstacles	Rookie
Perfume	Audience	Diminished	Dissolved
Middle	Settle	Chimney	Equator

1) Dissolved	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
2) Audience	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
3) Foolishness	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
4) Chimney	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
5) Perfume	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
6) Samples	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
7) Dainty	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
8) Fearsome	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
9) Equator	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

10) Settle

_____	_____	_____	_____
-----	-----	-----	-----
_____	_____	_____	_____

11) Gallop

_____	_____	_____	_____
-----	-----	-----	-----
_____	_____	_____	_____

12) Museum

_____	_____	_____	_____
-----	-----	-----	-----
_____	_____	_____	_____

13) Tissue

_____	_____	_____	_____
-----	-----	-----	-----
_____	_____	_____	_____

14) Obstacles

_____	_____	_____	_____
-----	-----	-----	-----
_____	_____	_____	_____

15) Rookie

_____	_____	_____	_____
-----	-----	-----	-----
_____	_____	_____	_____

16) Middle

_____	_____	_____	_____
-----	-----	-----	-----
_____	_____	_____	_____

17) Obvious

_____	_____	_____	_____
-----	-----	-----	-----
_____	_____	_____	_____

18) Pelican

_____	_____	_____	_____
-----	-----	-----	-----
_____	_____	_____	_____

19) Diminished

_____	_____	_____	_____
-----	-----	-----	-----
_____	_____	_____	_____

20) Utensils

_____	_____	_____	_____
-----	-----	-----	-----
_____	_____	_____	_____

Solving Unit Rate Problems

GETTING THE IDEA

A **rate** is a comparison, or ratio, of two quantities with different units. For example, a store sells 3 T-shirts for \$15. The comparison \$15 to 3 T-shirts is a rate. This rate can also be written as $\frac{\$15}{3 \text{ T-shirts}}$.

When a rate compares a quantity to one unit of another quantity, the rate is a **unit rate**.

The rate $\frac{\$15}{3 \text{ T-shirts}}$ is *not* a unit rate because the rate compares the cost to more than one T-shirt. In a unit rate, the second quantity (or denominator) should be 1 unit.

A speed limit is a unit rate. For example, the speed limit of 55 miles per hour compares the distance to 1 hour. A speed of 55 miles per hour is equivalent to traveling 55 miles in each 1-hour time span. This rate can also be written as $\frac{55 \text{ miles}}{1 \text{ hour}}$.

$\frac{\$15}{3 \text{ T-shirts}}$	$\frac{55 \text{ miles}}{1 \text{ hour}}$
Not a Unit Rate	Unit Rate

Every rate can be written as a unit rate.

Example 1

Darin rode his bicycle 24 miles in 3 hours. Shana rode her bicycle 12 miles in 2 hours. Which of the following ratios represents a rate?

$\frac{24 \text{ miles}}{12 \text{ miles}}$	$\frac{24 \text{ miles}}{3 \text{ hours}}$	$\frac{3 \text{ hours}}{2 \text{ hours}}$	$\frac{12 \text{ miles}}{2 \text{ hours}}$
---	--	---	--

Strategy Determine the ratios that have different units.

A rate compares two quantities with different units.

The ratio $\frac{24 \text{ miles}}{12 \text{ miles}}$ compares two quantities that have the same units, so the ratio is not a rate.

The ratio $\frac{24 \text{ miles}}{3 \text{ hours}}$ compares two quantities that have different units, so the ratio is a rate.

The ratio $\frac{3 \text{ hours}}{2 \text{ hours}}$ compares two quantities that have the same units, so the ratio is not a rate.

The ratio $\frac{12 \text{ miles}}{2 \text{ hours}}$ compares two quantities that have different units, so the ratio is a rate.

Solution The ratios $\frac{24 \text{ miles}}{3 \text{ hours}}$ and $\frac{12 \text{ miles}}{2 \text{ hours}}$ are rates.

Example 3

Changing bikes 36 miles in 3 hours. How many miles per hour does she travel?

Strategy Use an equation.

Step 1 Write a rate that compares distance to time.

$$\frac{\text{Distance}}{\text{Time}} = \frac{36 \text{ miles}}{3 \text{ hours}}$$

Step 2 Write an equation.

The unit rate is the number of miles per 1 hour. The given rate and the unit rate are equivalent.

$$\frac{36 \text{ miles}}{3 \text{ hours}} = \frac{? \text{ miles}}{1 \text{ hour}}$$

Step 3 Use division to find the missing number.

Because $3 \text{ hours} \div 3 = 1 \text{ hour}$, write an equivalent rate by dividing 36 miles by 3:

$$\frac{36 \text{ miles} \div 3}{3 \text{ hours} \div 3} = \frac{12 \text{ miles}}{1 \text{ hour}}$$

Solution Changing travels $\frac{12 \text{ miles}}{1 \text{ hour}}$, or 12 miles per hour.

Note that in both Examples 2 and 3, the unit rate can be found by dividing the numerator by the denominator and simplifying the fraction. The unit rate for $\frac{\$15}{3 \text{ T-shirts}}$ is $15 \div 3 = 5$ dollars per T-shirt.

The unit rate for $\frac{36 \text{ miles}}{3 \text{ hours}}$ is $36 \div 3 = 12$ miles per hour. This is because the quotient can be written as a fraction over a denominator of 1.

To find a unit rate, write the ratio as a fraction and divide the numerator by the denominator.

Example 4

Kaylie spent \$36 for 5 DVDs. Write the unit rate as a fraction and as a decimal.

Strategy Use division to write the unit rate as a fraction and as a decimal.

Step 1 Write the rate as a fraction. Then divide to find the unit rate.

$$\frac{\$36}{5 \text{ DVDs}} = \frac{\$36 \div 5}{5 \text{ DVDs} \div 5} = \frac{\$7.20}{1 \text{ DVD}}$$

Step 2 Write the unit rate as a decimal.

$$\frac{\$7.20}{1 \text{ DVD}}, \text{ so it costs } \$7.20 \text{ per DVD.}$$

Solution The unit rate is $\frac{\$7.20}{1 \text{ DVD}}$ or \$7.20 per DVD.

COACHED EXAMPLE

A water pump can pump 250 gallons from a pool in 5 minutes.

- (a) What is the unit rate of the pump in gallons per minute?
(b) How long will it take to pump 450 gallons from the pool?

(a) The unit rate compares _____ to _____.

The given rate is _____ gallons in _____ minutes.

Write the given rate as a fraction.

gallons

minutes

Divide the numerator by the denominator to find the unit rate.

_____ ÷ _____ = _____

The unit rate is _____.

(b) Use the _____ rate to write an equation to solve the problem.

$$\frac{\text{input} \text{ gallons}}{1 \text{ minute}} = \frac{450 \text{ gallons}}{? \text{ minutes}}$$

Multiply the numerator and denominator by _____ to find the equivalent fraction.

$$\frac{\text{input} \times \text{input} \text{ gallons}}{\text{input} \times 1 \text{ minute}} = \frac{450 \text{ gallons}}{\text{input} \text{ minutes}}$$

It takes _____ minutes to pump 450 gallons from the pool.

The unit rate of the pump is _____ gallons per minute. It takes _____ minutes to pump 450 gallons of water from the pool.

- 7 Cassie drives 165 miles in 3 hours. What describes the unit rate?
- A. Cassie drives 50 miles per hour.
 - B. Cassie drives 55 miles per hour.
 - C. Cassie drives 60 miles per hour.
 - D. Cassie drives 65 miles per hour.
- 8 Nick walked 6 miles in 2 hours. At that rate, how many miles can Nick walk in 3 hours?
- A. 3
 - B. 4
 - C. 9
 - D. 12
- 9 Troy made 60 bagels in a half-hour. How many bagels did Troy make each minute?
- A. 2
 - B. 30
 - C. 60
 - D. 120
- 10 Ashonda constructed 15 triangles in $\frac{1}{4}$ hour. How many triangles did Ashonda construct per minute?
- A. 1
 - B. 4
 - C. 30
 - D. 60
- 11 There are 90 sixth-grade students at a middle school. There are 6 sixth-grade teachers. What is the unit rate as a fraction?
- A. $\frac{1 \text{ student}}{15 \text{ teachers}}$
 - B. $\frac{15 \text{ students}}{1 \text{ teacher}}$
 - C. $\frac{1 \text{ student}}{30 \text{ teachers}}$
 - D. $\frac{30 \text{ students}}{1 \text{ teacher}}$
- 12 Takashi ran 200 yards in 40 seconds. Ana ran 150 yards in 25 seconds. Who ran faster and by how much?
- A. Ana ran faster by 1 yard per second.
 - B. Ana ran faster by 50 yards per second.
 - C. Takashi ran faster by 1 yard per second.
 - D. Takashi ran faster by 50 yards per second.
- 13 Doug was on a train that traveled 72 miles in 6 hours. What describes the unit rate?
- A. The train traveled at a rate of 9 miles per hour.
 - B. The train traveled at a rate of 12 miles per hour.
 - C. The train traveled at a rate of 32 miles per hour.
 - D. The train traveled at a rate of 66 miles per hour.

21 Dave is baking a cake. The recipe calls for 2 cups of sugar, 3 eggs, and 5 cups of flour. What unit rate of cups of flour per egg does the recipe call for?

- A. 5 cups of flour per 3 eggs
- B. 5 cups of flour per 2 cups of sugar
- C. $\frac{3}{5}$ cup of flour per egg
- D. $\frac{5}{3}$ cups of flour per egg

22 Jesse, Naomi, Ana, and Jose entered a hot-dog-eating contest to raise money for charity. Their charities received \$10 for each hot dog they could eat in 15 minutes. Jesse ate 25 hot dogs. Naomi ate at a rate of 90 hot dogs per hour. It took Ana an average of 45 seconds to eat each hot dog. Jose ate 1.5 hot dogs per minute. Who raised the most money?

- A. Jesse
- B. Naomi
- C. Ana
- D. Jose

23 It is 2 P.M. and Phong is driving 45 miles per hour to get to his sister's college graduation. The graduation ceremony starts at 5 P.M., and the college is 156 miles away.

Part A

If Phong continues to drive at 45 miles per hour, will he arrive in time? Explain and show your work.

Part B

What is the minimum speed Phong needs to drive to arrive in time for the graduation? Show your work.