

## WORD STUDY LESSON 25

#### **Roots**

**Directions:** Review the roots and their meanings in the chart. Then, read each sentence. Circle the word in the sentence that contains one of the roots. Underline the context clues in the sentence that can help define the word you circled.

ROOT	MEANING	ROOT	MEANING
act	to do	miss/mit	send or let go
aud	hear	path	feeling, suffering
dict	to say	port	carry
geo	Earth	scribe/scrip	write
man/manu	hand	vac	empty

- 1. The beautiful rugs at the market are manufactured completely by hand.
- 2. What message did the author inscribe when she signed your book?
- 3. The study of the physical features of the Earth is known as geography.
- 4. The empty house was vacant for many years.
- 5. I was able to listen to the audio of the speech, but I couldn't access the video.
- 6. The radio station transmitted an emergency message about an approaching storm.
- 7. Aaron contradicted himself, going against what he originally said.
- 8. My teammates offered me support when I sprained my ankle, carrying me off the field.
- 9. When you have sympathy for others, you have common feelings.
- 10. As the lead actor in the play, Gina has a lot to do.

## FLUENCY | LESSON 25



#### **Unpredictable Fire in the Sky**

Until the sixteenth century when Galileo made an important discovery, people thought the sun was a constant, predictable heavenly body. People knew the sun would rise in the east and set in the west. People counted on the sun to determine a day's beginning and end and even learned to tell time by it. Galileo, however, determined that the sun was not just a consistent and unchanging ball of light; instead, he noticed unexplainable spots on the sun's surface.



Scientists still study sunspots today, trying to determine what effect, if any, they may have on Earth. Of course, you cannot look directly at the sun, but if you were to look through a telescope with the proper sun filters, sunspots would look like dark swirls of iron around a magnet. Interestingly, what look like tiny dots on the sun can be as large as 50,000 miles wide. That means some sunspots are larger than Earth!

Studying sunspots is a constant effort because they are not permanent. In fact, the average lifespan of a sunspot is about one week. Though scientists are not sure how these spots are created, they have some ideas based on the facts they do know about the sun. The sun is made up of enormous quantities of hydrogen and helium gases that are always in motion. The hotter gases in the sun's center move toward the surface as the colder surface gases sink inward. Scientists say that the extreme difference between the interior gases that are as hot as 40 million degrees and the surface gases that range between 6,000 and 10,000 degrees cause the gases to move. This cyclical movement creates a magnetic field that in some way creates the spots.

The intensity of the magnetism varies. When the magnetic field is stable, the number of sunspots decreases. When the field is active, hundreds of sunspots can be seen. Roughly every 11 years, a peak called a solar maximum is reached, during which violent electrical storms that interrupt radio waves and disrupt TV signals occur.

Life on Earth is completely dependent on the sun, regardless of its predictability. It influences our weather, which, in turn, affects life in general, providing Earth with all that it needs to function efficiently.



## COMPREHENSION | LESSON 25

### **Cause-and-Effect Relationships**

**Directions:** Refer to the passage "Unpredictable Fire in the Sky" to complete the chart. Then, answer the question below.

CAUSE	EFFECT
	People no longer thought the sun was a constant, unchanging ball of light.
Sunspots are not permanent.	
There is an extreme temperature difference between the interior gases and the surface gases.	
	The number of sunspots increases.
A solar maximum happens every 11 years.	
How does the structure of the passage he	lp you understand the ideas?

## **VOCABULARY | LESSON 25**



#### **Content Vocabulary**

**Directions:** Read the vocabulary words. Then, find each word in the Glossary and write its definition.

1.	concoction
2.	sacred
3.	fermenting
_	
4.	longevity
5.	suppressant
6.	enhancing



# LEARNING LOG | LESSON 25

### **Learning Log**

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# WORD STUDY | LESSON 26



#### **Roots**

**Directions:** Review the roots and their meanings in the chart. Then, add a root to the prefix or suffix below to create a new word that completes each sentence.

ROOT	MEANING	ROOT	MEANING	
act	to do	miss/mit	send or let go	
aud	hear	path	feeling, suffering	
dict	to say	port	carry	
geo	Earth	scribe/scrip	write	
man/manu	hand	vac	empty	

1.	What medicine did the doctor pre	for the infection?
2.	Listen carefully because the teacher will only	ate each
	sentence one time.	
3.	Theer carried our bags to the roo	om.
4.	We will help the teacher set up the exhibit after the	other students are
	dised from class.	
5.	His quiet and hushed voice was nearly in	ible.
6.	The wordscript refers to somethi	ng that is written by hand
7.	After the residents euated, the to	wn was empty.
8.	We helped the children do an art	ivity after reading them a
	story.	



#### **Unpredictable Fire in the Sky**

Until the sixteenth century when Galileo made an important discovery, people thought the sun was a constant, predictable heavenly body. People knew the sun would rise in the east and set in the west. People counted on the sun to determine a day's beginning and end and even learned to tell time by it. Galileo, however, determined that the sun was not just a consistent and unchanging ball of light; instead, he noticed unexplainable spots on the sun's surface.



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# COMPREHENSION | LESSON 26



### **Cause-and-Effect Relationships**

**Directions:** Refer to the passage "Chocolate: Sweet Satisfaction" to complete the chart. Then, answer the question below.

CAUSE	EFFECT
Aztecs believed that chocolate was sacred.	
	The cacao tree only grows in the tropics, almost exclusively within 10 degrees of latitude of the Equator.
Blossoms on the cacao tree ripen for five to six months.	
	People feel calm, relaxed, and have a reduced sensitivity to pain.
Chocolate contains a chemical that humans release when they fall in love.	
How does the structure of the passage hel	p you understand the ideas?



suppressant

## VOCABULARY LESSON 26

longevity

#### **Content Vocabulary**

**Directions:** Complete each sentence with a vocabulary word from the box below. You may refer to the Glossary, if needed.

sacred

		fermenting	enhancing	concoction	
1.		grandmother owes her		to eating h	ealthy
2.	We	used a variety of frozen fi	•		
3.	Dr. :	Jackson prescribed a coug	gh	to hel	p
4.		nbers.	ceremony w	as attended by many	church
5.	Yogu in m	urt gets its texture as a re nilk.	esult of bacteria		
	-	ou feel that belonging to experience at school?	drama club is		

# LEARNING LOG | LESSON 26



### **Learning Log**

rite your idea letter and en			sentence w





### **Syllabication**

**Directions:** Divide the following words into syllables. Then, read each word.

WORD	WORD DIVIDED INTO SYLLABLES
predict	
geocentric	
transcribed	
manufacture	
portable	
evacuate	
admit	
interact	
empath	
audience	



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## COMPREHENSION | LESSON 27

#### Cause-and-Effect Relationships: Your Turn to Write

**Directions:** Write a paragraph in which you discuss cause-and-effect relationships from the passage "Chocolate: Sweet Satisfaction." Include information about at least three important details and their causes, as well as how this information helps you understand the ideas in the passage. Make sure you begin each sentence with a capital letter and end each sentence with a punctuation mark. Check your spelling when you are finished writing.





#### **Content Vocabulary Review**

**Directions:** Write a sentence for each vocabulary word. Each sentence should reflect details from the passage "Chocolate: Sweet Satisfaction."

1.	concoction
2.	sacred
3.	fermenting
4.	longevity
5.	suppressant
6.	enhancing



# LEARNING LOG | LESSON 27

### **Learning Log**

lls? Write	Think abou your ideas er and end	on the lin	es below	. Make sı	are you be	gin each s	