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Building Background Knowledge and Supporting Vocabulary Development in English Language Learners/Multilingual Language Learners: Grade 5 Exemplars

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Grade 5: Esperanza Rising

https://www.engageny.org/resource/grade-5-ela-module-1-unit-2

Overview			
Background 1: The Great Depression of the 1930s	American Institutes for Research (AIR) developed this activity to provide students with background information on the Great Depression—the time period in which <i>Esperanza Rising</i> takes place.		
	INSTRUCTIONS FOR TEACHERS		
	 Turn to Expeditionary Learning: Grade 5: Module 1: Unit 2: Lesson 1. Before beginning the lesson, complete the background activity called "The Great Depression of the 1930s," which AIR has provided on the following pages. 		
Background 2: Historical Fiction	AIR developed this activity to provide students with background information on historical fiction before they read <i>Esperanza Rising</i> . The lesson provides a definition of historical fiction and examples that demonstrate why <i>Esperanza Rising</i> is historical fiction.		
	INSTRUCTIONS FOR TEACHERS		
	 Turn to Expeditionary Learning: Grade 5: Module 1: Unit 2: Lesson 1. Before beginning the lesson, complete the background activity called "Historical Fiction," which AIR has provided on the following pages. 		
Glossary of key vocabulary: Esperanza Rising	This glossary provides definitions and sample sentences for key vocabulary drawn from Chapters 1 and 2 of <i>Esperanza</i> <i>Rising</i> . The quartile from the list of the 4,000 most frequent words is also provided, where applicable. Glossed words include those identified in the Expeditionary Learning materials and those identified by AIR staff as key to understanding the text.		



Background 1: The Great Depression of the 1930s

The Great Depression of the 1930s

The book *Esperanza Rising* is about a young girl from Mexico. The story starts in 1924, when Esperanza lived on her family's farm in Mexico. She had a good life until her father was killed and their family lost everything. In the1930s, Esperanza and her family moved to the United States to work on farms in California. Before reading *Esperanza Rising*, we are going to learn about what happened in the United States and California during this time. In this lesson, we are going to learn about the Great Depression.

INSTRUCTIONS FOR STUDENTS

- Look at the guiding question.
- Read the text about the Great Depression.
- Use the glossary to help you understand new words.
- Answer the supplementary questions.
- Answer the guiding question.
- Discuss your answers with the class.

Guiding Question: What were the effects of the Great Depression?



A farm in Kansas during the "dust bowl" $(1936)^1$



A migrant farmworker's family $(1939)^2$

¹ <u>http://www.loc.gov/pictures/collection/fsa/item/fsa1998018503/PP/resource/</u>

² <u>http://www.loc.gov/pictures/item/fsa1998021557/PP/</u>



A closed bank (1939) ³	People waiting for food (1939) ⁴
	Glossary
The Great Depression was a time in history when the economy stopped working. A lot of people lost their jobs, their houses, and all of	charitable organizations – organizations that collect food and clothing to help people in need
their money. A lot of people were very poor.	dust storms – strong winds that carry loose sand and dirt
The Great Depression started in 1929. It lasted about ten years. The unemployment	economy – the system of making and spending money
rate was very high. Many companies closed. More than 11.3 million people lost their jobs. ⁵	Great Depression – a period of economic difficulty in the United States
Many banks closed. People could not get their money out of the banks. They lost all their money.	unemployment rate – the number of people not having a job
People did not have money for food. They were hungry. People stood in long lines to get food donated by charitable organizations . Some people broke the windows of grocery stores to get food for their families.	
During the "dust bowl," there was a severe lack of rain in some parts of the United States. Dust storms damaged many farms.	

 ³ <u>http://www.loc.gov/pictures/item/fsa2000009740/PP/</u>
 ⁴ <u>http://www.loc.gov/pictures/collection/fsa/item/fsa1997025609/PP/</u>
 ⁵ <u>http://www.globalresearch.ca/great-depression-level-unemployment-in-america/25098</u>



	Word Bank			
	banks	economy	companies	dust storms
	ten			
		Supplement	ary Questions	
1.	What was the Grea	t Depression?		
	The Great Depressi	on was a period in history	when the	_ stopped working.
	[EN, EM]			
	The Great Depressi	on was		[TR]
2.	How long did the C	Breat Depression last?		
	The Great Depressi	on lasted approximately _	years. [EN, EM]	
	The Great Depressi	on lasted		[TR]
3.	Why did people los	e their jobs?		
	People lost their jol	os because many	closed. [EN, E	EM]
	People lost their jol	os because		[TR]
4.	Why did people los	e their money?		
	People lost their me	oney because	closed. [EN, EM]	
	People lost their mo	oney because		[TR]
5.	What caused damag	ge to farms?		
	Farms were damage	ed by cau	sed by a severe lack of rain	n. [EN, EM]
	Farms were damage	ed by		[TR]
G	iding Question: W	That were the effects of the	Great Depression?	



Guiding Question: How did the Great Depressi	on affect Mexican farmworkers?
Mexican farm workers in California (1938) ⁶	Living conditions in the Mexican section of San Antonio, Texas (1939) ⁷
	Glossary
 The Great Depression was especially difficult for Mexican farmworkers. Before the Great Depression, Mexicans had been working on farms in California and Texas for many years. They were paid little money and they had to work very hard for many hours. During the Great Depression, there were very few jobs. White trade unions organized strikes. They complained that Mexican immigrants were taking their jobs. The U.S. government removed approximately 82,000 Mexicans from the United States. Workers with Mexican backgrounds (citizens and non-citizens) were sent to Mexico.⁸ 	<pre>complained – said they were not happy about something Great Depression – a period of economic difficulty in the United States immigrants – people who move to another country strikes – protests; work stoppages trade unions – organizations of workers</pre>

⁶ <u>http://www.loc.gov/pictures/item/fsa2000001774/PP/</u>
⁷ <u>http://www.loc.gov/pictures/item/fsa2000013844/PP/</u>
⁸ <u>http://www.uscis.gov/history-and-genealogy/our-history/historians-mailbox/ins-records-1930s-mexican-</u> repatriations



		Wor	d Bank	
	taking	little	hours	
		Supplement	ary Questions	
1.	. What kind of working	conditions did Mexica	an farmworkers experience?	
	Mexican farmworkers	were paid	money and had to work hard for many	
	[EN, EM]			
	Mexican farmworkers		[TR]	
2.	. Why were Mexican far	rmworkers sent to Me	xico?	
	Mexican farmworkers	were sent to Mexico b	because people said they were	_jobs
	from white American	workers. [EN, EM]		
	Mexican farmworkers	were sent to Mexico b	ecause	_
		[TR]		
G	Guiding Question: How did the Great Depression affect Mexican farmworkers?			



Background 2: Historical Fiction

Historical Fiction				
The book <i>Esperanza Rising</i> is an example of historical fiction. The story is not real, but it is based on real places and events in history. We can learn about how people lived in the past by reading historical fiction.				
INSTRUCTIONS FOR STUDENTS				
• Look at the guiding question.				
• Read the text about historical fiction.				
• Use the glossary to help you understand new word	S.			
• Answer the supplementary questions.				
• Answer the guiding question.				
• Discuss your answers with the class.				
Guiding Question: In what ways is Esperanza Rising an	example of historical fiction?			
History is a description of real places, people, and	Glossary			
events from the past. Fiction is an imaginary story.	based on – related to			
Historical fiction is an imaginary story based on real	characters ^{*9} – people in a story			
places, people, and events from the past.				
	events – things that happen in a			
The book <i>Esperanza Rising</i> is historical fiction.	story			
The characters and plot in <i>Esperanza Rising</i> are not real. The main character is a Mexican girl named	Great Depression – a period of economic difficulty in the United States			
Esperanza. The book tells the story of Esperanza and her family when they moved to California to work on farms.	imaginary – not real; existing only in the mind			
	plot – actions in a story			
The setting is based on real events in history. The story takes place in Mexico and California in the 1930s during the Great Depression .	setting* – the place and time of a story			
Word Bank				
past imaginary	true Great Depression			
Supplementary Questions				
1. What is historical fiction?				
Historical fiction is an story based on real people or events in the				
[EN, EM]				

⁹ Words with an asterisk (*) are highlighted in the Expeditionary Learning lessons.



	Historical fiction is [TR]	
2.	Are the characters in the story Esperanza Rising real?	
	The characters in the story (are/are not) real. [EN, EM]	
	The characters are [TR]
3.	Is the plot of <i>Esperanza Rising</i> real?	
	The plot of the story (is/is not) real. [EN, EM]	
	The events in the story are	[TR]
4.	Is the setting of the story Esperanza Rising real?	
	The setting of the story (is/is not) real. [EN, EM]	
	The setting of the story is	[TR]
5.	What is the historical setting for Esperanza Rising?	
	The historical setting for Esperanza Rising is the	[EN,
	EM]	
	The historical setting is	[TR]
Respo fiction	onse to Guiding Question: <i>In what ways is Esperanza Rising an example of ?</i>	^c historical



Vocabulary word	Quartile	Definition	Sample sentence from the text
admired admiró	Q4	liked	Esperanza stood between Mama and Papa, with her arms linked to theirs, and admired the activity of the workers (pg. 6).
adored* <i>adoraban</i>	N/A	loved	Or without being surrounded by people who adored her (pg. 8).
alive viva	Q1	having life; not dead	"Our land is alive , Esperanza," said Papa, taking her small hand as they walked through the gentle slopes of the vineyard (pg. 1).
bandits* bandidos	N/A	robbers	"Mama, the neighbors warned him just last night about bandits " (pg. 11).
beacon* <i>rayo</i>	N/A	light	They hurried to the courtyard and watched a distant light, a small beacon of hope swaying in the darkness (pg. 21).
beat <i>ritmo</i>	Q2	a regular sound	The beat rushing in her ears (pg. 2).
blade cuchilla	Q4	a tool that cuts	The short blade was curved like a scythe, its fat wooden handle fitting snugly in her palm (pg. 4).
capricious caprichos	N/A	acting on impulse	But Esperanza loved her more for her capricious ways than for her propriety (pg. 13).
cautiously* cuidadosamente	N/A	taking care to avoid danger	Then she cautiously clipped the blown rose that had wounded her (pg. 9).
clusters racimos	N/A	small groups	The clusters were heavy on the vine and ready to deliver (pg. 5).
companion compañero	Q4	one who spends time with another	Alfonso, Hortensia's husband, was el jefe, the boss, of all the field workers and Papa's compañero, his close friend and companion (pg. 16).
complained se quejó	Q4	said she was not happy with something	Esperanza complained , "Must we always crochet to take our minds off worry?" (pg. 13).

Glossary of key vocabulary: Esperanza Rising¹⁰

¹⁰ The vocabulary in the glossary pertains to Chapters 1–2 of *Esperanza Rising*. Words with an asterisk (*) are highlighted in the Expeditionary Learning lessons.



Vocabulary word	Quartile	Definition	Sample sentence from the text
crochet* hooks agujas de ganchillo o croché	N/A	needles with a hook at one end	"Come, <i>mi nieta</i> , my granddaughter," said Abuelita, holding up yarn and crochet hooks (pg. 12).
deliver <i>entregar</i>	Q3	to produce	The clusters were heavy on the vine and ready to deliver (pg. 5).
discuss discutir	Q2	talk	They still had two more years to wait, but so much to discuss —the beautiful white gowns they would wear, the big celebrations where they would be presented, and the sons of the richest families who would dance with them (pg. 7).
distinguished* distinguida	Q4	dignified appearance	She looked very distinguished , wearing a respectable black dress, the same gold loops she wore every day (pg. 13).
distracted distraída	N/A	not paying attention	Distracted , Mama paced at the window, each step making a hollow tapping sound on the tile floor (pg. 18).
gathered reunido	Q2	brought together	Everyone who lived and worked on El Rancho de las Rosas was gathered at the edge of the field (pg. 4).
gazing* contemplando	N/A	looking at someone or something for a long time	Esperanza was six years old and loved to walk with her Papa through the winding rows, gazing up at him and watching his eyes dance with love for the land (pg. 1).
generations generaciones	Q2	groups of people born and living during the same time	He loved the land as Papa did and it had been the two of them, working side by side, who had resurrected the neglected rose garden that had been in the family for generations (pg. 16).
gentle slopes* ligeras pendientes	Q2 (gentle) Q3 (slopes)	small hills	"Our land is alive, Esperanza," said Papa, taking her small hand as they walked through the gentle slopes of the vineyard (pg. 1).
glanced ojeó	Q3	looked quickly	When she walked toward the arbors and glanced back at her parents, they both smiled and nodded, encouraging her forward (pg. 5).



Vocabulary word	Quartile	Definition	Sample sentence from the text
gowns trajes	N/A	long, formal dresses	They still had two more years to wait, but so much to discuss—the beautiful white gowns they would wear, the big celebrations where they would be presented, and the sons of the richest families who would dance with them (pg. 7).
grasped sujetó	N/A	took hold with her hands	When she reached the vines, she separated the leaves and carefully grasped a thick stem (pg. 5).
grief dolor	N/A	great sadness	A noise came from her mouth and slowly, her first breath of grief grew into a tormented cry (pg. 22).
harvest cosecha	Q3	collecting crops	"¡La cosecha!" said Papa. "Harvest!" (pg. 6)
honor honor	Q2	a special opportunity to do something that makes you proud	This job was usually reserved for the eldest son of a wealthy rancher, but since Esperanza was an only child and Papa's pride and glory, she was always given the honor (pg. 4)
host invitará	Q3	serve guests in a home	Abuelita might host a group of ladies for a formal tea in the afternoon, then after they had gone, be found wandering barefoot in the grapes, with a book in her hand, quoting poetry to the birds (pg. 13).
imagine imaginar	Q1	think of	Because she couldn't imagine living anywhere other than El Rancho de las Rosas (pg. 8).
knelt down arrodilló	N/A	put one or both knees on the floor	Esperanza smoothed her dress and knelt down (pg. 2).
lopsided* asimétricas		uneven	The tops of her mountains were lopsided and the bottoms of her valleys were all bunched up (pg. 14–15).
moment momento	Q1	a very short period of time	She swallowed her laughter and after a moment said, "I can't hear it, Papi" (pg. 2).
neglected abandonado	N/A	not given enough attention or care	He loved the land as Papa did and it had been the two of them, working side by side, who had resurrected the neglected rose garden that had been in the family for generations (pg. 16).



Vocabulary word	Quartile	Definition	Sample sentence from the text
opposite opuesto	Q2	completely different	Esperanza watched the two women look out into the dark and couldn't help but think that Hortensia was almost the opposite of Mama (pg. 15).
paced caminaba de un lado a otro	N/A	walked back and forth	Distracted, Mama paced at the window, each step making a hollow tapping sound on the tile floor (pg. 18).
palm palma	Q3	the inside part of the hand	The short blade was curved like a scythe, its fat wooden handle fitting snugly in her palm (pg. 4).
patient <i>paciente</i>	Q2	stay calm	You must be patient , Esperanza'' (pg. 2).
premonition* premonición	N/A	a sign; warning	She quickly wrapped her hand in the corner of her apron and dismissed the premonition (pg. 8– 9).
property* propiedad	Q1	a piece of land	Her father was a fruit rancher and they lived on the neighboring property (pg. 7).
propriety* decencia	N/A	appropriate behavior	But Esperanza loved her more for her capricious ways than for her propriety (pg. 13).
resentment* resentimiento	N/A	a feeling of anger about someone	They both knew that even though it was 1930 and the revolution in Mexico had been over for ten years, there was still resentment against the large landowners (pg. 12).
resounding* resonante	N/A	making a loud, clear sound	A resounding thud, thud, thud against her body (pg. 2).
searching <i>mirando</i>	Q2	looking	There she found Mama searching the horizon, too (pg. 10).
self- importance* <i>prepotencia</i>	N/A	an exaggerated sense of one's own value	In a moment of self-importance , Esperanza had told all of this to Miguel (pg. 18).
servants sirvientes	Q3	people whose job is to clean and cook	Esperanza's family, the house servants in their long white aprons, the <i>vaqueros</i> already sitting on their horses ready to ride out to the cattle, and fifty or sixty <i>campesinos</i> , straw hats in their hands, holding their own knives ready (pg. 4).



Vocabulary word	Quartile	Definition	Sample sentence from the text
shiver tiritar	N/A	to shake because you are afraid	And for that reason, Tío Luis's sudden kindness made her shiver with fear for Papa (pg. 20).
silent silenciosa	Q2	not speaking or making noise	She waited and lay silent , watching Papa's eyes (pg. 2).
stared <i>miró fijamente</i>	Q2	looked at for a long time	She stared at Papa, not wanting to say a word (pg. 2).
struggled se movía con dificultad	Q2	had difficulty	Esperanza struggled with her stitches (pg. 21).
stubbornly* obstinadamente	N/A	not changing her ideas	"No, I won't," Esperanza had said stubbornly (pg. 17).
superstition* superstición	N/A	a belief that is not based on a fact	"Bad luck," said Mama, confirming the superstition , but she half-smiled (pg. 10).
swept extendió	Q3	touched lightly	He swept his hand towards the grapevines, signaling Esperanza (pg. 5).
sympathetic* compasivo	N/A	shows understanding	Papa is sympathetic and has given land to many of his workers (pg. 12).
teasing burlas	N/A	making fun of	There was no teasing or laughing or talking about every little thing (pg. 18).
thumping* <i>ruido sordo</i>	N/A	beating; striking with a heavy, dull sound	And then she felt it. Softly at first. A gentle thumping . Then stronger (pg. 2).
tormented* tormentoso	N/A	painful	A noise came from her mouth slowly, her first breath of grief grew into a tormented cry (pg. 22).
twisted up enrollado	Q3	turned up	Esperanza's parents, Ramona and Sixto Ortega, stood nearby, Mama tall and elegant, her hair in the usual braided wreath that crowned her head, and Papa, barely taller than Mama, his graying mustache twisted up at the sides (pg. 5).
vicious* cruel	N/A	dangerous	She bent over to pick a red bloom, fully opened, and pricked her finger on a vicious thorn (pg. 8).
vineyard* viñedo	N/A	a field where grapes are grown	"Our land is alive, Esperanza," said Papa, taking her small hand as they walked through the gentle slopes of the vineyard (pg. 1).



Vocabulary word	Quartile	Definition	Sample sentence from the text
wealthy rico	Q3	having a lot of money; rich	This job was usually reserved for the eldest son of a wealthy rancher, but since Esperanza was an only child and Papa's pride and glory, she was always given the honor (pg. 4).
winding* rows líneas serpenteantes	Q4 (winding) Q2 (rows)	long, curving lines	Esperanza was six years old and loved to walk with her Papa through the winding rows , gazing up at him and watching his eyes dance with love for the land (pg. 1).
worry preocupación	Q2	fear	Darkness would settle quickly and a feeling of uneasiness and worry nagged at her (pg. 9).



The Most Beautiful Roof in the World

https://www.engageny.org/resource/grade-5-ela-module-2a

Overview			
Background 1: The Rainforest	American Institutes for Research (AIR) developed this activity to provide background about rainforests, and the plants and animals that inhabit it.		
	INSTRUCTIONS FOR TEACHERS		
	 Turn to Expeditionary Learning: Grade 5: Module 1: Unit 2: Lesson 1. Before beginning the lesson, complete the background activity called "The Rainforest," which AIR has provided below. 		
Background 2:	AIR developed this activity to familiarize students with the		
Picture Walk	pictures in the book <i>The Most Beautiful Roof in the World</i> . ELLs/MLLs will need to connect the pictures with the text to assist them with reading comprehension. To complete this lesson, students must use the book. Have the students number the pages in the book starting with the first page of text.		
	INSTRUCTIONS FOR TEACHERS		
	 Turn to Expeditionary Learning: Grade 5: Module 1: Unit 2: Lesson 1. Follow the instructions for the Opening and Work Time Part A. Complete the background activity called "The Rainforest," which AIR has provided below. Follow the instructions for Work Time Parts B and C, Closing and Assessment, and Homework from the Expeditionary Learning materials. 		
Glossary of key vocabulary: The Most Beautiful Roof in the World	This glossary provides definitions and sample sentences for key vocabulary drawn from <i>The Most Beautiful Roof in the</i> <i>World</i> (Module 2A: Unit 2: Lessons 1–7). The quartile from the list of the 4,000 most frequent words is also provided, where applicable. Glossed words include those identified in the Expeditionary Learning materials and those identified by AIR staff as key to understanding the text.		



Background 1: The Rainforest

The Rainforest

The book *The Most Beautiful Roof in the World* is an informational text that tells how Meg Lowman explored and studied a rainforest in Belize. In preparation for reading *The Most Beautiful Roof in the World*, we are going to learn about rainforests, and the plants and animals that live there.

INSTRUCTIONS FOR STUDENTS

- Look at the guiding question.
- Read the text about the rainforest in Belize.
- Use the glossary to help you understand new words.
- Answer the supplementary questions.
- Answer the guiding question.
- Discuss your answers with the class.

Guiding Question: *What is a rainforest?*

Belize is a country in Central America. It shares borders with Mexico in the north, with Guatemala on the west and south, and the Caribbean ocean on the east.



Glossary

jungle – land covered with many trees, vines, and bushes

explored – traveled to discover or search for something

wildlife – animals that live in their natural home

species^{*11} – a group of living things that are the same

tropical – living in hot, wet climate areas

reptiles – animals whose body temperature depends on the air or water around it

¹¹ Words with an asterisk (*) are highlighted in the Expeditionary Learning lessons.



They have many trees and plants very clowith little space in between. With little space in between. Weg Lowman explored the Blue Creek in The Blue Creek is home to a many forms It has many species of tropical trees, plan flowers. It is home to many insects, birds and other animals. The plants and animal the forest depend on each other to survive	n Belize. s of wildlife. nts and s, reptiles, ls that live in				
	Word Bank				
Central America plants	reptiles	trees			
insects rain	plants	warm			
Mexico Guatemala					
Supplementary Questions					
1. Where is Belize?					
Belize is a country in	·				
2. What countries share a border with B	elize?				
Belize share borders with	Belize share borders with and [EN, EM]				
Belize share borders with [TR]					
3. What is the climate of a rainforest?					
Rainforests are and g	get a lot of	[EN, EM]			
Rainforests are		[TR]			
4. What does a rainforest look like?					



	A rainforest has many	and	with very little space between
	them. [EN, EM]		
	A rainforest is		[TR]
5.	What forms of wildlife live in the rain	nforest?	
	Rainforest has many plants,		and flowers. It is home to many types of
	, birds, and		[EN, EM]
	Wildlife in the rainforest includes		[TR]
R	esponse to Guiding Question: What is	s a rainf	orest?



Background 2: Picture Walk

Picture Walk

In preparation for reading *The Most Beautiful Roof in the World*, we are going to look through the pictures in the book and answer some questions. The pictures will help us become familiar with the plants and wildlife that Meg Lowman studied in the book *The Most Beautiful Roof in the World*. The pictures in the book help us to understand as we read.

INSTRUCTIONS FOR STUDENTS

- Look at the picture in the book.
- Read the sentence(s) about the picture.
- Use the glossary to help you understand new words.
- Answer the questions.
- Discuss your answers with the class.

	Word Bank					
above	ve snake down			pieces		
bark	coiled	gree	en	walkways		
birds	canopy	infla	atable	bromeliads		
lower	top	mid	dle			
colors	plants	red				
	Supple	mentary Qu	uestions			
Look at the pic	ture on page 12.			Glossary		
			canopy* – t	he highest layer of		
Read the senter	nces: "The crowns of thes	e trees	branches in a			
	ne canopy in the layer kno					
	avilion is to the canopy as	s a roof is	crowns* – te	op cover		
to a ceiling."			layer – section			
 What is the pavilion of the rainforest? The pavilion is the layer the canopy. [EN, EM] 						
The pavilion	n is					
[TR]						
Look at the pictures on page 16.Glossary						
Read the sentences: "Spider monkeys prefer the middle layers of the canopy . The capuchins are often found in the lower levels, and the howler			tone	out loudly and with a deep he highest layer of		
often found in the lower levels, and the nowier			branches in a	a forest		



	onkeys that bellow at dawn like distant foghorns e at the very top."	layers – sections				
2.	2. Where do the spider monkeys live?					
	Spider monkeys prefer the	layers of the canopy. [EN, EM]				
	Spider monkeys	[TR]				
3.	Where do the capuchins live?					
	Capuchins are often found in the	levels of the canopy. [EN,				
	Capuchins	[TR]				
4.	Where do the howler monkeys live?					
	Howler monkeys live at the very	of the canopy. [EN, EM]				
Howler monkeys [TR]						
Lo	ok at the picture on page 20.	Glossary				
Read the sentences: "Meg climbs higher into the		canopy* – the highest layer of branches in a forest				
lig	nopy . Suddenly, through the avenues of emerald ht, like winged rainbows , two macaws sweep rough the canopy ."	rainbow – an arc of light with many colors				
		sweep – fly				
		winged – having wings				
5.	What are macaws?					
	Macaws are Their wings have many [EN, EM]					
	Macaws are	[TR]				
Lo	ook at the picture on page 22.	Glossary				
Re	ad the sentences: "Epiphytes, unlike vines or	canopy* – the highest layer of branches in a forest				
lianas, usually start growing from the canopy		bark – the outside cover of a tree				
	wn. They need the tree for support. They root on e bark or soil found on the tree."	soil – the top layer of the earth's surface; dirt				



	vines – plants having a long, thin, woody stem that climbs up a tree				
6. What is special about the epiphytes?					
Epiphytes are plants that start growing from the t or soil found on the tree. [EN, EM]	op canopy They root on the				
Epiphytes are	[TR]				
Look at the picture on the bottom right of page 23.	Glossary				
Read the sentences: "The leafcutter ants do their	canopy* – the highest layer of branches in a forest				
farming in reverse, trudging up to the canopy day and night to cut dime-size disks. They hoist the	chambered – divided into sections				
pieces overhead and carry them back down to the underground chambered caverns."	hoist – raise or lift				
7. What do you see in the picture at the bottom righ	t of page 23? The picture shows				
leafcutter ants carrying of leave	s. [EN, EM]				
The picture shows					
[TR]					
Look at the picture at the bottom right of page 24. Glossary					
Read the sentences: "Bromeliads have spiky leaves, which form a fibrous hollow tank. The outer leaves are bright green, but often the inner leaves are fiery red and erupt like tongues of flame from a volcano."					
8. What type of plant do you see in the picture on the	ne bottom right of page 24?				
I see a [ALL]				
9. What colors are the leaves of the plant?					
The leaves are and	[ALL]				
Look at the picture at the top left of page 25.	Glossary				
Read the sentence: "Maybe the frog and its tadpoles have been eaten by the little venomous snake she spots coiled among the outer leaves."	coiled – wound into many connected rings tadpoles – a young frog				



	venomous – able to give poison with its bite				
10. What do you see in the picture at the top left of p	bage 25?				
I see a [ALL]					
11. How is the snake described in the text?					
The snake is described as being	among the outer leaves. [EN, EM]				
The snake was	[TR]				
Look at the pictures on pages 32 and 33.	Glossary				
Read the sentences: "Keep on climbing." "At last they reach the walkway."	walkway – bridge; place to walk				
12. How does Meg get from one tree to another?					
Meg climbs up the trees. Meg uses high to get from one tree to					
another. [EN, EM]					
Meg uses					
[TR]					
Look at the picture on page 34.	Glossary				
Read the sentence: "In Cameron there was an	canopy* – the highest layer of branches in a forest				
immense inflatable raft that a dirigible floated over the rainforest canopy and settled upon the	crown* – top cover				
emergent crown of trees."	floated – rested on the surface of a tree without falling				
	immense – very large; huge				
	inflatable * – able to be filled with air				
13. What do you see in the picture on page 34?					
I see an immense raf	t. [EN, EM]				
I see	[TR]				



Vocabulary Word	Quartile	Definition	Sample sentence from the text
acid-free* <i>libre de ácido</i>	N/A	not containing any harmful acid	Finally Meg glues them down on special acid - free paper.
aerial roots raíces aéreas	Q2 (roots)	roots above the ground	Just outside the cave, over the surface of the water, epiphytes drop their aerial roots from one hundred feet (thirty meters) overhead.
altered* alterados	N/A	changed	When a tree falls, the stump rots, bark loosens, and new creatures move in and take over the altered habitats.
anole anole	N/A	a small lizard	The palm viper coiled in the buttressed roots of the acacia tree might hear them, but more meaningful is the flick of an anole's tail on a nearby philodendron leaf.
ascending* ascender	N/A	climbing; rising	For a human being, ascending to the canopy is not easy.
balances* se equilibra	N/A	holds steady	She stops, balances on a staple, and looks straight up.
bank* orilla	Q1	land at the edge of a river	The main stem of the Y spans nearly hundred feet (thirty meters) across Blue Creek to the bank .
base* base	Q1	bottom part	And this does not include the approximately ten days every month she spends at the base of trees looking up.
biomass* biomasa	N/A	the total amount of living things in a particular environment	They knew that the canopy was the "powerhouse" of the rainforest, the place where most photosynthesis occurs and where 95 percent of the biomass , the living things of the rainforest is produced.
bristles <i>esté lleno de</i>	N/A	is covered with	She wants to observe a mature one that fairly bristles with plant life.
buttressed tree roots raíces apuntaladas de árboles	Q1 (tree) Q2 (roots)	tree roots that extend above ground supporting the tree	And the immense buttressed tree roots are covered with thin veils of bright orange lichen.
canopy* <i>follaje</i>	N/A	the highest layer of branches in a forest	Meg wants to know about the relationships between plants and insects in the canopy .

Glossary of key vocabulary: The Most Beautiful Roof in the World¹²

¹² The vocabulary pertains to *The Most Beautiful Roof in the World: Exploring the Rainforest Canopy*. Words with an asterisk (*) are highlighted in the Expeditionary Learning lessons.



Vocabulary Word	Quartile	Definition	Sample sentence from the text
ceaseless* incesante	N/A	continuous and unending	Within the tangled vines under the rotting bark of fallen trees, caught in the slime and mold of decaying vegetation and fungi, life teems with ceaseless energy.
chatterings* parloteos	N/A	quick; short sounds	They could only wonder about the canopy, brilliantly lit, noisy with bird life and the chatterings of monkeys.
cliffs* <i>peñascos</i>	Q3	high, steep surfaces of rocks	They must be as skillful as any mountaineer, perhaps more so, for the cliffs they ascend are made not of rocks but of leaves and branches of enormous elasticity.
coati coatí	N/A	a small animal related to the raccoon	In the understory, above the chameleon, a frog slaps its sticky padded feet on a palm frond and freezes—are these the sounds of its enemy, the coati ?
conservation* conservación	Q4	the protection of forests from harm	Meg's lab is at the Marie Selby Botanical Gardens, a rainforest research center in Sarasota, Florida, where she is director of research and conservation .
considered* considerado	Q1	thought of	Blue Creek is considered one of the most humid places on the entire planet.
consumed consumidas	N/A	eaten	Or does the fact that a branch's new leaves are being consumed stimulate the tree to produce more?
creek arroyo	Q3	a small river	Once across, the arms of the Y diverge into two separate walkways that tie into trees on the opposite bank of the creek .
crowns* copas	N/A	top cover	The crowns of these trees extend above the canopy in the layer known as the pavilion.
decaying* <i>decadente</i>	N/A	breaking down by a slow, natural process	Within the tangled vines under the rotting bark of fallen trees, caught in the slime and mold of decaying vegetation and fungi, life teems with ceaseless energy.
discarded descartados	N/A	thrown away	If they are not, the disks are discarded and the ants must turn around and climb one hundred or more feet (thirty meters) into the canopy again in search of the right kind of leaf.
elasticity elasticidad	N/A	flexibility	They must be as skillful as any mountaineer, perhaps more so, for the cliffs they ascend are made not of rocks but of leaves and branches and enormous elasticity .



Vocabulary Word	Quartile	Definition	Sample sentence from the text
emergent*growth crecimiento superior	Q1 (growth)	highest layer	From the emergent growth to the floor of the rainforest is a drop of 150 feet (46 meters) or more.
environmentalist* ambientalista	N/A	someone who works to protect the natural environment	John Audubon, the famous naturalist and bird painter, has always been considered a great artist but today is regarded as an irresponsible environmentalist .
Epiphytes <i>Epífitas</i>	N/A	plants that grow on other plants	Epiphytes , unlike vines or lianas, usually start growing from the canopy down.
exclusion* experiment experimento de exclusión	Q2 (experime nt)	a test to discover something new (in the test, some species are included and some species are not included)	With the mesh bags Meg is going to begin an exclusion experiment.
excretes excreta	N/A	gets rid from the body	They often begin when a bird excretes a seed from overhead, or as in this case, when the ants drag in bits of plant materials.
fascinated* fascinado	N/A	attracted and held the attention and interest of	Since Meg was six, she has been fascinated by the natural world.
fearless* intrépidos	N/A	without fear; brave	Such scientists, however, must be strong, fearless , and physically fit as well as smart and hard-working.
foliage* <i>follaje</i>	N/A	leaves	When viewed from below, the canopy appears to be one big maze of tangled vines and foliage , but within the canopy there are a variety of distinct regions.
footholds <i>puntos de apoyo</i>	N/A	places where feet may be placed when climbing	These are the footholds .
foraging buscando	N/A	searching for food	Or the pair might be foraging in the surrounding mahogany and kapok trees for fruit and nuts.
frontier* frontera	Q4	limits of knowledge in a particular field	The rainforest canopy has been linked to an undiscovered continent, a kind of last frontier .
fungi hongos	N/A	mushroom	In the dark damp maze of tunnels and caves, the leaves begin to grow mold and fungi , which in turn feed the ants.



Vocabulary Word	Quartile	Definition	Sample sentence from the text
funnel shape forma de embudo	Q1 (shape)	a cone shape (wide at one end and narrow at the other end)	Through some mysterious power, the web is being drawn back into a funnel shape .
galls <i>agallas</i>	N/A	abnormal bumps	There might also be galls on a leaf to be noted.
glucose glucosa	N/A	a type of sugar that is found in plants	The little ant farmers tend them night and day, and in return they feed off the glucose and proteins that the plants contain in their succaries, the sugary deposits made by the plants' metabolic processes.
habitats* hábitats	N/A	places where plants or animals live	When a tree falls, the stump rots, bark loosens, and new creatures move in and take over the altered habitats .
hatching eclosión	N/A	coming out of an egg; being born from an egg	She will compare these figures and notations with what she already knows about the hatching periods of certain insect populations.
herbarium* <i>herbario</i>	N/A	collection of dried plants	Each preserved plant is carefully tagged and labeled and then put in the herbarium , a plant library.
herbivory* herbívoros	N/A	animals that eat plants	She is especially interested in herbivory , leaf and plant eating insects and other animals.
howler monkeys monos aulladores	N/A	monkeys that make a long, loud, sad sound	The capuchins are often found in the lower levels, and the howler monkeys that bellow at dawn like distant foghorns live at the very top.
interlocking entrelazadas	N/A	connecting so that the individual parts affect each other	There are many such interlocking relationships within the rainforest, and ants play a major role.
interrupt interrumpen	Q3	stop happening for a time	It is necessary for a scientist not only to observe ongoing processes but to ask new questions that might only be answered by setting up experiments that often interrupt natural processes.
intrigued* intrigada	N/A	interested	When Meg was ten years old, she was intrigued by two women: Rachel Carson, one of the first environmentalists, who studied and wrote about the delicate relationships in the web of life, and Harriet Tubman, the most famous "conductor" of the Underground Railroad.
inventory inventario	N/A	list	It is her aim to try to inventory , or count, the different species of plants and insects, starting from the ground up.



Vocabulary Word	Quartile	Definition	Sample sentence from the text
leafcutter ants hormigas cortadoras de hojas	N/A	ants that cut pieces of leaves	The leafcutter ants do their farming in reverse, trudging up to the canopy day and night to cut dime-size disks.
lianas* lianas	N/A	tropical, high- climbing, woody vines	For those creatures that swing or glide or climb, there are the "emerald highways" strung together by vines and lianas that lace the tops of the trees together into a web for commuting life.
lichen liquen	N/A	small, slow growing plant	And the immense buttressed tree roots are covered with thin veils of bright orange lichen .
lungless sin pulmones	N/A	without lungs	She recognizes it as a very rare lungless salamander.
lycopods licopodios	N/A	low-growing green plants that look like large moss	Continuing to count, Meg finds ten ferns of three different species and forty-one lycopods , or mosses, of which there are five different species.
machinery <i>maquiaria</i>	Q2	system	Meg Lowman believes that science is the machinery that runs the earth.
metabolic <i>metabólicos</i>	N/A	food changed into energy or used to make cells and tissues	The little ant farmers tend them night and day, and in return they feed off the glucose and proteins that the plants contain in their succaries, the sugary deposits made by the plants' metabolic processes.
mesh* malla	N/A	a material made of fiber woven to form open spaces, as in a net	With the mesh bags Meg is going to begin an exclusion experiment.
minings* <i>minerías</i>	N/A	digging in mines	"Leaf number four is zero percent, with three minings ," Meg calls out to a graduate student assistant, who writes the figure down in a notebook.
mold <i>moho</i>	Q3	a soft substance that grows on the surface of wet things	In the dark damp maze of tunnels and caves, the leaves begin to grow mold and fungi, which in turn feed the ants.
moss musgo	Q4	a small green plant without flowers	But it was not only moss that she had to look for.
mountaineer montañero	N/A	person who climbs mountains	They must be as skillful as any mountaineer , perhaps more so, for the cliffs they ascend are made not of rocks but of leaves and branches and enormous elasticity.
navigated <i>caminaba</i>	N/A	Made her way; walked	Meg read that she often navigated by feeling for the moss that grew on the north sides of trees.



Vocabulary Word	Quartile	Definition	Sample sentence from the text
nutrients nutrientes	Q3	a substance that plants, animals, and people need to live and grow	Scientists think that the ant gardens themselves may be of benefit to more than just the ants, that these gardens help the tree itself by allowing it to capture more solar energy and to trap atmospheric nutrients that slip off a bare trunk.
obstacles obstáculos	N/A	problems	Since the mid-1980s better technology has been developed, offering new ways for scientists to overcome the natural obstacles of gravity, ants, and thorns.
opportunistic* oportunistas	N/A	seeking or taking advantage of situations to serve one's own ends	It is the very diversity of the rainforest that allows life to thrive everywhere, to spring back with a rush of opportunistic species to fill the gaps.
pavilion* <i>pabellón</i>	N/A	highest layer	The crowns of these trees extend above the canopy in the layer known as the pavilion .
permit* <i>permiso</i>	Q3	an official document that shows that a person is allowed to do something	She has a special permit that allows her to collect many rare specimens, some of which are brought back and continue to grow in the Selby greenhouses.
photosynthesis <i>fotosíntesis</i>	N/A	process by which a green plant turns water and carbon dioxide into food when exposed to light	They knew that the canopy was the "powerhouse" of the rainforest, the place where most photosynthesis occurs and where 95 percent of the biomass, the living things of the rainforest, is produced.
pickling encurtiendo	N/A	preserving with salt and a liquid	These she must carefully preserve by pickling or pressing.
pioneer* pionera	Q4	first to do something	Meg, was a pioneer field naturalist, one of the first women field naturalists in this country.
pitfall traps trampas pitfall	N/A	holes in the ground to trap small animals	The boys begin by helping one of Meg's graduate research assistants dig pitfall traps within the square.
platform* <i>plataforma</i>	Q3	a flat, raised surface used as a place to stand	She is climbing to the first observation platform , 110 feet (33.5 meters) above the ground.
powerhouse* central de energía	N/A	great energy, strength, or power	They knew that the canopy was the "powerhouse" of the rainforest, the place where most photosynthesis occurs and where 95 percent of the biomass, the living things of the rainforest, is produced.



Vocabulary Word	Quartile	Definition	Sample sentence from the text
proteins proteinas	Q3	chemical compounds found in all living things and necessary for life	The little ant farmers tend them night and day, and in return they feed off the glucose and proteins that the plants contain in their succaries, the sugary deposits made by the plants' metabolic processes.
regurgitate regurgitarán	N/A	pour back out; spit out	When they return to their young, they will regurgitate this food into the mouths of their chicks.
relationships* <i>relaciones</i>	Q2	connections	Meg wants to know about the relationships between plants and insects in the canopy.
research investigación	Q1	the study and collecting of information	Meg's lab is at the Marie Selby Botanical Gardens, a rainforest research center in Sarasota, Florida, where she is director of research and conservation.



Vocabulary Word	Quartile	Definition	Sample sentence from the text
rotting podrida	N/A	slowly decaying	Within the tangled vines under the rotting bark of fallen trees, caught in the slime and mold of decaying vegetation and fungi, life teems with ceaseless energy.
salamander* <i>salamandra</i>	N/A	small animal that looks like a lizard with smooth skin and that lives both on land and in water	A rare and mysterious tree salamander slinks unto the petals of an orchid.
samples* muestras	Q2	small parts of something that shows what the whole is like	When Meg is at Selby Gardens, she busily sorts, classifies, and prepares samples of plants, flowers, and insects she has brought back from her exploration in rainforest canopies all over the world.
saplings <i>plántulas</i>	N/A	young trees	There are forty-one saplings four or five feet in height struggling toward the filtered light.
scent aroma	N/A	smell	She had to know how to find a swamp to plunge into when slave-hunting dogs bore down; the sulfurous mud and slime could disguise a human scent and confuse the dogs.
screech chillan	N/A	a loud and very high sound	The birds fly in silence, but the spider monkeys screech in alarm.
seedling vástagos	N/A	plants grown from a seed	Meg counts at least six different kinds of seedling plants here, ranging from orchids to cacti.
shifting cambiante	Q3	moving; changing in position	The space between the branches changes with each new grip, making a shifting geometry against the sky of sliding rectangles, split- second parabolas, and drifting squares.
shrubbery arbustos	N/A	a group of plants with woody stems	Next Meg needs to sample the kind of insect life that lives just above the ground in the shrubbery .
skillful* hábiles	N/A	do something well	They must be as skillful as any mountaineer, perhaps more so, for the cliffs they ascend are made not of rocks but of leaves and branches of enormous elasticity.
snapshots* imágenes	N/A	quick views	The sweeps, the beating trays, the pitfall traps, and the counting of seedlings are all ways for Meg to take " snapshots " of diverse rainforest life.



Vocabulary Word	Quartile	Definition	Sample sentence from the text
solitariness soledad	N/A	without others; loneliness	But despite the solitariness of her work, the lonely hum of the computer, and the clicking of the keys, in the back of her mind is the consoling knowledge of other scientists and pioneers.
sonar sonar	N/A	a way to find things underwater by using sound waves	And far ahead, in the canopy, a fruit bat cocks its sonar toward the dark little cabin one hundred feet below as it swoops through the night dropping a seed here, a seed there.
species* especies	Q2	a group of living things that are the same	Within a 16-foot (five meter) square there can be upward of two hundred different species of plants.
specimens* especímenes	N/A	samples	She has a special permit that allows her to collect many rare specimens , some of which are brought back and continue to grow in the Selby greenhouses.
springs back <i>repliega</i>	Q1	returns to its original shape	The web springs back , and at its trembling center is a small insect.
staples grapas	N/A	pieces of metal in the shape of a u	Metal staples project from the tree trunk.
starvation inanición	N/A	dying from not eating	She had to know which berries and nuts could be eaten, which could make the difference between starvation and survival.
stimulate estimula	N/A	makes more active	Or does the fact that a branch's new leaves are being consumed stimulate the tree to produce more?
suction-cup ventosa	N/A	a round piece of rubber that sticks to surfaces	Because of their rareness and inaccessibility in the canopy, these salamanders with their suction-cup feet are one of the canopy's most mysterious inhabitants.
sweeping <i>barrido</i>	Q4	cleaning with a brush	Sweeping is another technique for sampling insects in the column.
synchronized* sincronizados	N/A	caused to happen at the same time	She has a hunch that the hatchings are synchronized to occur when certain leaves flush, or first grow, and are at their most tender for eating.
tadpoles renacuajos	N/A	young frogs	Poison dart frog tadpoles swim high above the forest floor in the tanks of bromeliads.
teems* pulula	N/A	full of	Within the tangled vines under the rotting bark of fallen trees, caught in the slime and mold of decaying vegetation and fungi, life teems with ceaseless energy.



Vocabulary Word	Quartile	Definition	Sample sentence from the text
tended atendidas	Q2	cared for	This, in fact, is the foundation for the little tree- top farms so carefully tended by several different species of ants.
tendrils zarcillos	N/A	long, thin, leafless twisting stem or extension	They appear to be almost hanging, with their tendrils of plant roots and vines swaying in the still air.
thrive* prosperar	N/A	grow	It is the very diversity of the rainforest that allows life to thrive everywhere, to spring back with a rush of opportunistic species to fill the gaps.
timeless* eterno	N/A	lasting forever	The rainforest is a timeless , uncharted world, where mysteries abound and new or rare species appear like undiscovered islands.
treetops* copas de los árboles	N/A	leafy heads of trees; the highest parts of trees	During the past ten years Meg has spent at least five days a month in the treetops , which adds up to six hundred days.
uncharted* inexplorado	N/A	not recorded or located on a map, chart or plan	The rainforest is a timeless, uncharted world, where mysteries abound and new or rare species appear like undiscovered islands.
upward* <i>más</i>	Q2	to a higher number	Within a 16-foot (five-meter) square there can be upward of two hundred different species of plants.
varieties* variedad	N/A	a number of different things	In this shadowed world, pierced occasionally by slivers of sunlight, are more varieties of living things than perhaps any other place on earth.
vegetation* vegetación	Q4	plants	Within the tangled vines under the rotting bark of fallen trees, caught in the slime and mold of decaying vegetation and fungi, life teems with ceaseless energy.
venomous venenosa	N/A	poisonous; deadly	Maybe the frog and its tadpoles had been eaten by the little venomous snake she spots coiled among the outer leaves.
vials ampollas	N/A	small containers	Meg gets out one of her insect vials filled with alcohol she always carries.
vines lianas	Q4	plants having long, thin, woody stems that climb up a support	Within the tangled vines under the rotting bark of fallen trees, caught in the slime and mold of decaying vegetation and fungi, life teems with ceaseless energy.
wonder* preguntarse	Q1	think about something with curiosity	They could only wonder about the canopy, brilliantly lit, noisy with bird life and the chatterings of monkeys.

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