

## SINGLE SUBJECT DAILY LESSON – Jenna Munguia

TITLE OF LESSON <b>Outbreak: Smallpox in Latin America</b>	CURRICULUM AREA & GRADE LEVEL Spanish 2, Grades 9-10 ITU – First lesson in 2-week unit, “ <i>Epidemiology – Zombie Apocalypse</i> ”	DATE OF LESSON ITU – Class Session #1
<p><b>CA CONTENT STANDARD(S) ADDRESSED</b></p> <p>From World Language Content Standards for CA Public Schools K-12 – CA Department of Education (Posted 9/13/10)</p> <p><u>Content:</u></p> <p>3.0 Students acquire information, recognize distinctive viewpoints, and further their knowledge of other disciplines.</p> <p>3.1 Students address concrete and factual topics related to the immediate and external environment, including:</p> <p style="padding-left: 40px;">j. Significant historical events</p> <p><u>Cultures:</u></p> <p>3.2 Describe similarities and differences in the target cultures and between students’ own cultures.</p>	<p><b>CA ELD STANDARD(S) ADDRESSED</b></p> <p>From CA Department of Education ELD Standards for Grades 9-10 (Adopted 9/7/12)</p> <p>Part I – Interacting in Meaningful Ways</p> <p>A. Collaborative</p> <p style="padding-left: 20px;">1. Exchanging information/ideas (expanding)</p> <p style="padding-left: 40px;">Contribute to class, group, and partner discussions, sustaining conversations on a variety of age and grade appropriate academic topics by following turn-taking rules, asking and answering relevant, on-topic questions, affirming others, providing additional, relevant information, and paraphrasing key ideas.</p> <p>B. Interpretive</p> <p style="padding-left: 20px;">6. Reading/viewing closely (expanding)</p> <p style="padding-left: 40px;">a) Explain ideas, phenomena, processes, and relationships within and across texts (e.g., compare/contrast, cause/effect, themes, evidence-based argument) based on close reading of a variety of grade-appropriate texts, presented in various print and multimedia formats, using increasingly detailed sentences, and an increasing variety of general academic and domain-specific words.</p>	
<p><b>BIG IDEA ADDRESSED</b></p> <p>The World Health Organization describes smallpox in no uncertain terms: “Smallpox, which is believed to have originated over 3,000 years ago in India or Egypt, is one of the most devastating diseases known to humanity. For centuries, repeated epidemics swept across continents, decimating populations and changing the course of history”.</p> <p>Students will learn about smallpox in the context of its effect on Latin American society, particularly in relation to New World conquest. By comparing the smallpox epidemic to a zombie apocalypse, students will deepen their knowledge of how outbreaks can reshape society and have significant impact on culture.</p>	<p><b>ESSENTIAL QUESTIONS ADDRESSED</b></p> <p>What was the impact of the smallpox on Latin American society?</p> <p>How does disease spread?</p> <p>How might a smallpox epidemic be different or similar to a zombie pandemic?</p> <p>What can we learn about ourselves by thinking about how we might behave in a time of strife such as an apocalypse?</p>	
<p><b>OBJECTIVE(S) OR LEARNING GOAL(S)</b></p> <p>After reading a section of the smallpox text with a small group of classmates, SWBAT demonstrate their ability to read closely by completing a graphic organizer that identifies three main ideas from the passage and two new vocabulary words.</p> <p style="padding-left: 40px;">Objective type: cognitive, language</p> <p style="padding-left: 40px;">Standards addressed: Content 3.0, 3.1 (Content); Interacting in Meaningful Ways B.6a expanding (ELD)</p> <p>After completing the graphic organizer, SWBAT summarize the key ideas of their assigned section of the smallpox text by sharing orally with their classmates (jigsaw reading activity).</p> <p style="padding-left: 40px;">Objective type: cognitive, language</p> <p style="padding-left: 40px;">Standards addressed: Content 3.0, 3.1 (Content); Interacting in Meaningful Ways A.1 expanding (ELD)</p>	<p><b>ASSESSMENT(S)</b></p> <p>Formative, Informal: Students will complete a graphic organizer that identifies three main ideas and two new vocabulary words from their assigned section of the smallpox text.</p> <p>Formative, Informal: Students will teach a section of the smallpox text to their peers (jigsaw reading activity).</p> <p>Formative, Informal: Students will contribute to a class discussion about the similarities and differences between the smallpox epidemic that occurred in Latin America and a zombie apocalypse.</p>	

After learning about the smallpox epidemic in Latin America, SWBAT compare and contrast the event with a zombie apocalypse by contributing to a class discussion at the end of the lesson.

Objective type: cognitive, language

Standards addressed: Content 3.0, 3.1, Cultures 3.2 (Content); Interacting in Meaningful Ways A.1 expanding (ELD)

**PREDICTION OF LIKELY DIFFICULTIES STUDENTS MAY ENCOUNTER WITH THIS MATERIAL**

Some students might struggle with the vocabulary in the passage and need additional help understanding the meaning of the section they were assigned to present to their peers. A list of key vocabulary will be provided and dictionaries are available as needed. (content)

Students who take a more passive role or rely on other members of their “expert group” as they read their assigned section of text might have a difficult time teaching the section to their home group during the jigsaw reading activity. All students are responsible for filling out the graphic organizer so this should help maintain involvement. (process)

**INSTRUCTIONAL STRATEGIES: *What the Instructor does to help students cope with the difficulties in order to succeed***

STEPS (Fill in each box with specific information)	LEARNING STYLE(S) ADDRESSED	REASONS/RATIONAL ES
<p><b>Anticipatory Set (“Into”)</b></p> <p>1. Instructor introduces topic of study by displaying an image of the smallpox epidemic in Latin America on the projector screen and leading a class discussion. Instructor writes student observations on the white board and facilitates the discussion with questions such as ‘What do you see here?’ And ‘What might be the purpose?’ (5 min)</p>	<p>Auditory, Linguistic, Visual</p>	<p>Building background through anticipatory activity. Use of visual display to prompt student engagement with the topic of study. Use of thought-provoking questions assist students to formulate ideas about the topic and the upcoming content of the lesson. Writing observations on white board provides reference for remainder of lesson.</p>
<p><b>Instruction (“Through”)</b></p> <p>2. Instructor passes out the reading handout and has students individually preview the text. (2 min)</p> <p>3. Instructor directs students to work with a partner and write down three things that they think they will learn from the text (predict). Instructor clarifies that students can do this</p>	<p>Visual</p> <p>Linguistic, Psychomotor, Interpersonal</p>	<p>Preview &amp; predict literacy activity. Continue to build background by having students familiarize themselves with the text and make predictions about what they will learn. Appeal to student learning preferences and</p>

**STUDENT ACTIVITIES: *What the students do***

STEPS (Fill in each box with specific information)	LEARNING STYLE(S) ADDRESSED	REASONS/RATIONAL ES
<p><b>Anticipatory Set (“Into”)</b></p> <p>1. Students join class discussion about image that is displayed on the projector screen, adding observations and ideas as the instructor writes on the white board. (5 min)</p>	<p>Auditory, Linguistic, Visual</p>	<p>Opportunity for students to see a visual depiction of the smallpox epidemic. Collaborative discussion promotes in-depth thinking about what the students observe about the piece of art.</p>
<p><b>Instruction (“Through”)</b></p> <p>2. Students individually preview the text about smallpox. (2 min)</p> <p>3. Students work with a partner and write down three things that they think they will learn from the text (predict). Format of writing (complete sentences, note form, or pictures) varies based on student preference. (3 min)</p>	<p>Visual</p> <p>Linguistic, Psychomotor, Interpersonal</p>	<p>Time to preview the text allows students to gain a level of comfort and familiarity with it before starting to read. Preview &amp; predict activity allows students to start thinking about what they will learn and discussing these ideas with their</p>

<p>4. using complete sentences, note form, or pictures, whichever they prefer. (3 min)</p> <p>5. Instructor then has partners share their list with another pair of students and choose one idea to share with the class. (3 min)</p> <p>5. Instructor has a representative from each group of pairs share with the class one thing they think they will learn from the text. Instructor adds these predictions to the white board. (3 min)</p>	<p>Linguistic, Psychomotor, Interpersonal</p> <p>Linguistic, Auditory, Visual</p>	<p>interests by giving them options for writing down their predictions. Provide opportunity for collaboration and group decision-making. Ideas written on board can be referred to at the end of the lesson.</p>	<p>4. Partners share their list with another pair of students, choose one idea to share with the class, and decide who will share the idea. (3 min)</p> <p>5. One representative from each group of pairs shares with the class one thing they think they will learn from the text. (3 min)</p>	<p>Linguistic, Psychomotor, Interpersonal</p> <p>Linguistic, Auditory, Visual</p>	<p>classmates. Establish context for upcoming jigsaw reading activity.</p>
<p><b>Guided Practice (“Through”)</b></p>					
<p>6. Instructor divides students into groups by counting off one through five, explaining that each group will read the text as a “cooperative team” (home group). Instructor then assigns a specific section of the text to each group member based on their ability (order of difficulty, easiest to hardest: section 2, 5, 1, 4, 3). Instructor hands out graphic organizer. (3 min)</p>	<p>Auditory</p>	<p>Jigsaw reading activity supports literacy development by breaking down text into smaller sections for analysis and discussion. Assignment of text sections (paragraphs) by readiness level allows for differentiation. Graphic organizer provides a structure for organizing the main ideas and new vocabulary in the passage and can be used to help students teach their home group.</p>	<p>6. Students count off one through five, join the other students who were assigned to their home group, and receive the assigned section of text that they will be responsible for. Students receive graphic organizer. (3 min)</p>	<p>Auditory</p>	<p>The “random” groupings will put students together based on the seating chart (strategic).</p>
<p>7. Instructor directs students to move and join the other students who have the same section of text. Instructor directs these “expert teams” to read their section of text together, explaining that each student must fill out a graphic organizer that they will use to teach their original “cooperative team” about the section of text that they read (jigsaw text reading). Instructor will collect the graphic organizers as students exit the room. Instructor paces activity and lets students know how much time remains. (15 min)</p>	<p>Auditory, Linguistic, Interpersonal, Psychomotor, Visual</p>		<p>7. Students move and join their peers who have the same section of text. As “expert teams,” they read the section of text together and each student fills out a graphic organizer that they will use to teach their original “cooperative team” about what they read (jigsaw text reading). Students fill in three key ideas and two new vocabulary words. Students use dictionary as needed to look up words they do not know. (15 min)</p>	<p>Auditory, Linguistic, Interpersonal, Psychomotor, Visual</p>	<p>Peer support as students read their section of text and work together as they fill out their graphic organizers. Vocabulary list will help students understand more obscure words and provide support for English Learners.</p>

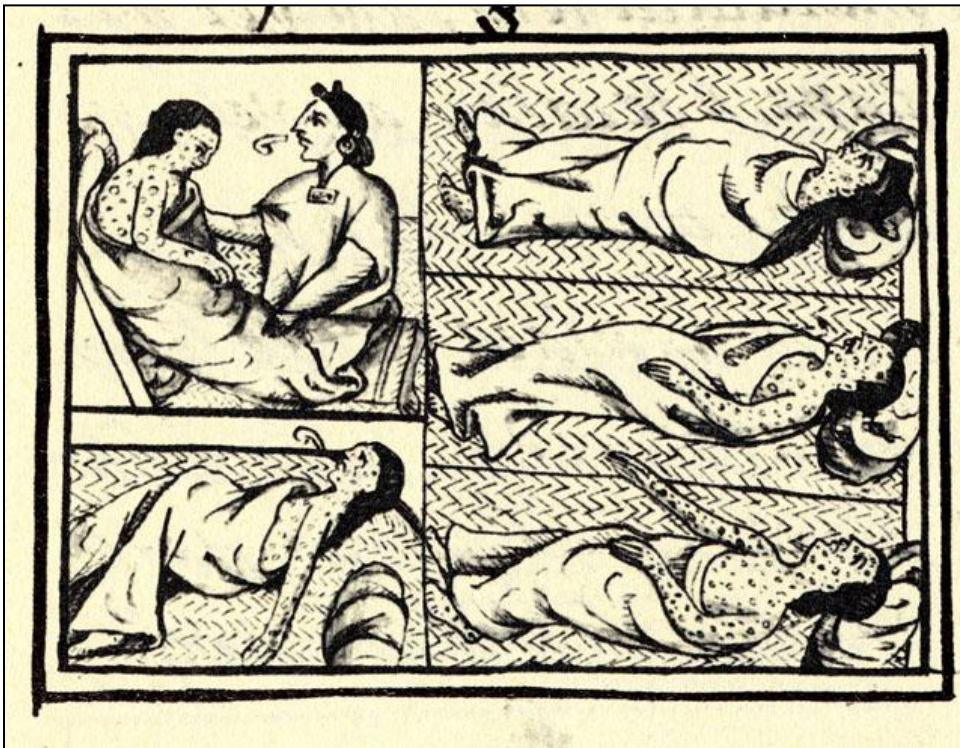


<p>students as they leave. (2 min)</p>					
<p><b>INFO ABOUT ENGLISH LANGUAGE LEARNERS:</b> <i>Consider students individually and as a group</i></p> <p>All EL students in the class have been redesignated. However, most of these students still need support with subject specific vocabulary in English.</p> <ul style="list-style-type: none"> <li>• Eric C. (9) - Redesignated (2007, 3rd grade), CELDT 4, entered VUSD in 2nd grade, home language Spanish</li> <li>• Oscar L. (9) - Redesignated in 2009 (5th grade), CELDT 4, home language Spanish</li> <li>• Victor S. (12) - Redesignated in 2005 (4th grade), CELDT 3, home language Spanish, also SpEd</li> <li>• Ashley T. (9) - Redesignated in 2009 (5th grade), CELDT 5, home language Vietnamese</li> <li>• Deanna V. (10) - Redesignated in 2012 (9th grade), CELDT 4, home language Spanish</li> <li>• Mikaela V. (9) - Redesignated in 2008 (5th grade), CELDT 5, home language Filipino (Tagalog)</li> </ul>			<p><b>INFO ABOUT STUDENTS W/ SPECIAL NEEDS</b> (include gifted students) : <i>Consider students individually &amp; collectively</i></p> <ul style="list-style-type: none"> <li>• Isabel T. (12) - RSP (Resource Specialist Program) <ul style="list-style-type: none"> <li>○ Readiness – familiar with Spanish pronunciation but new to grammar rules, has been struggling on early quizzes and tests</li> <li>○ Learning Profile – auditory learner, mature demeanor, one of oldest students in the class, does not hesitate to ask questions to clarify understanding</li> <li>○ Interests – unknown</li> </ul> </li> <li>• Alisha J. (11) - RSP/Speech <ul style="list-style-type: none"> <li>○ Readiness – one of the weaker students in the class, struggles with pronunciation of words of Spanish, works hard and stays on task</li> <li>○ Learning Profile – auditory and kinesthetic learning preferences, likes to work in groups, outgoing and social</li> <li>○ Interests – fashion, basketball, dance, hanging out with friends</li> </ul> </li> <li>• Isaac R. (9) – RSP <ul style="list-style-type: none"> <li>○ Readiness – typically performs just below class average</li> <li>○ Learning Profile – auditory and visual learner, puts forth good effort in class</li> <li>○ Interests – music, always wears ear buds during class</li> </ul> </li> <li>• Victor S. (12) - Special Day Class <ul style="list-style-type: none"> <li>○ Readiness – has taken Spanish 1 before, knows basic grammar and performs well on quizzes and tests; challenges include speaking and social skills</li> <li>○ Learning Profile – prefers to work independently, visual learner</li> <li>○ Interests – unknown</li> </ul> </li> </ul>		
<p><b>DIFFERENTIATION FOR ENGLISH LANGUAGE LEARNERS—</b> <i>choose area(s) as necessary based on information above</i></p> <ul style="list-style-type: none"> <li>• This lesson supports <b>readiness levels</b> for English Learners that need help developing language by providing opportunities to listen, read, write and speak. SDAIE strategies are incorporated throughout the lesson to make content comprehensible. Sections of text are assigned based on ability level.</li> <li>• In terms of <b>learning profile</b>, the students are provided with a variety of ways to experience the content of the lesson. The students can also choose to take a more active or passive role in the lesson, depending on their preference and comfort level.</li> <li>• In terms of the students' <b>interests</b>, students are given the option to choose the format of the notes they take during the preview &amp; predict activity. They can also choose which vocabulary words to focus on.</li> </ul> <p>This lesson would support language development through:</p> <ul style="list-style-type: none"> <li>• <b>Content</b> (<i>what material—including key vocabulary—is learned</i>) – smallpox reading, assigned by section based on readiness</li> </ul>			<p><b>DIFFERENTIATION FOR STUDENTS WITH SPECIAL NEEDS—</b> <i>choose area(s) as necessary based on information above</i></p> <ul style="list-style-type: none"> <li>• This lesson supports the <b>readiness levels</b> of these students because guidance from the instructor is built into the first part of the lesson and peer support is available during the jigsaw activity. Sections of text are assigned based on ability level.</li> <li>• In terms of <b>learning profile</b>, the students are provided with multiple opportunities to understand the material. Students can learn from the class discussions, reading their section of text with a small group, listening to their peers present, and watching a video.</li> <li>• In terms of the students' <b>interests</b>, students are given the option to choose the format of the notes they take during the preview &amp; predict activity. They can also choose which vocabulary words to focus on.</li> </ul> <p>This lesson would support students with special needs through:</p> <ul style="list-style-type: none"> <li>• <b>Content</b> (<i>what material—including key vocabulary—is learned</i>) – smallpox reading, assigned by paragraph based on readiness level</li> <li>• <b>Process</b> (<i>how the material is learned</i>) – Extra preparation by</li> </ul>		

<p>level</p> <ul style="list-style-type: none"> <li>• <b>Process</b> (<i>how the material is learned</i>) – preview &amp; predict and jigsaw reading activities support literacy development; graphic organizer structures jigsaw reading; focus on vocabulary</li> <li>• <b>Product</b> (<i>how the learning is demonstrated</i>) – teaching a short section of the passage to their peers in a small group format</li> </ul>	<p>previewing the activity; additional Instructor support; graphic organizer structures jigsaw reading; focus on vocabulary</p> <ul style="list-style-type: none"> <li>• <b>Product</b> (<i>how the learning is demonstrated</i>) – Instructor can provide students with alternate guides/visual organizers to use for remembering important points to share with their peers during the jigsaw activity</li> </ul>
<p>RESOURCES (<i>Attach materials needed to implement the lesson— e.g., power point presentation, text, graphic organizer</i>)</p> <ol style="list-style-type: none"> <li>1. Digital image depicting smallpox epidemic</li> <li>2. White board and dry erase markers</li> <li>3. Smallpox reading handout</li> <li>4. Graphic organizer handout</li> <li>5. Short National Geographic video about smallpox <a href="http://video.nationalgeographic.com/video/science/health-human-body-sci/health/smallpox-sci/">http://video.nationalgeographic.com/video/science/health-human-body-sci/health/smallpox-sci/</a></li> <li>6. Document camera</li> </ol>	<p>REFLECTION</p> <p>N/A - Lesson has not been taught yet.</p>

**Resources:**

Image depicting smallpox epidemic (anticipatory set):



Drawing accompanying text in Book XII of the 16th-century Florentine Codex (compiled 1540-1585), showing Nahuas of conquest-era central Mexico suffering from smallpox. (<http://www.historytoday.com/elizabeth-fenn/great-smallpox-epidemic>)

# The History of Smallpox in Latin America

*The discovery of the New World & the subsequent Columbian exchange unleashed a smallpox epidemic which would decimate the native population of Latin America.*

Tony Dunnell (2009) <https://suite101.com/a/the-history-of-smallpox-in-latin-america-a152524>



The World Health Organization describes smallpox in no uncertain terms: “Smallpox, which is believed to have originated over 3,000 years ago in India or Egypt, is one of the most devastating diseases known to humanity. For centuries, repeated epidemics swept across continents, decimating populations and changing the course of history”.

No evidence has been found of any smallpox-like diseases in Latin America before the arrival of European explorers. With the discovery of the New World, Europeans brought with them Old World diseases, most notably smallpox, which were to decimate the native population.

The Amerindians of Latin America had no natural resistance to the disease, and smallpox was to spread rapidly and disastrously. Spanish Conquistadors were set to wage war against the civilizations of Latin America with steel and horse, but no weapon could have been more lethal than smallpox.

### **The Columbian Exchange – Smallpox in Latin America**

The first smallpox outbreak in the New World occurred in 1507 on the Caribbean island of Hispaniola. Columbus had founded the first European settlement here on Hispaniola, and it would not be long before the first major Old World diseases broke loose amongst the native population, decimating the islanders.

In 1520, Spanish settlers sailed from Hispaniola to Mexico taking the disease with them. With the Columbian Exchange, smallpox arrived in mainland Latin America and the results would be both swift and catastrophic.

### **The Spread of Smallpox and the Fall of the Aztec Empire**

At approximately the same time as the arrival of smallpox in Mexico, Hernán Cortés and his Spanish Conquistadors had engaged in hostilities with the native Aztec Empire. Cortés and his men, despite an alliance with indigenous warriors hostile to the Aztec Empire, were hugely outnumbered. However, Cortés had another ally, a biological weapon that even he was unaware of.

It has been argued that without the smallpox epidemic in Mexico, Cortés may not have succeeded against the Aztecs. Historians Ian and Jenifer Glynn, in *The Life and Death of Smallpox*, claim that “Without the help of smallpox, even horses and guns could not have enabled Cortés, with his army of fewer than 900 men, to defeat the Aztecs and conquer Mexico”.

Smallpox claimed an estimated one third of the Aztec population. The Aztec Emperor Cuitláhuac died from smallpox, further throwing the Aztecs into disarray. The Aztec Empire collapsed and Cortés took control of Mexico. The population of Mexico, estimated at 15 to 30 million at the time, shrank to just 3 million by 1568 and approximately 1.6 million by 1620, according to Ian and Jenifer Glynn. Smallpox, they state, “was the principal culprit”.

### **The Smallpox Epidemic and the Inca Empire in South America**

Smallpox spread south at an incredible rate. Even before Francisco Pizarro arrived in Peru to confront the Inca Empire, smallpox was decimating the native population in South America.

Pizarro first arrived in the Inca realm in the mid 1520s. By the time he returned in 1532, intent on conquering the Inca Empire, the smallpox epidemic had contributed to the outbreak of civil war in the Empire and caused the death of the Inca Emperor Huayna Capac.

His successor, Atahualpa, found himself leader of an Empire weakened and terrorized by a strange and deadly disease. Pizarro, like Cortés, would make the most of the situation. The native Inca warriors already feared the Spanish Conquistadors as gods. Their horses and guns, their white skin



and shining armor, both were compounded by the fearful disease which they brought with them and to which they seemed invulnerable.

According to Ian and Jenifer Glynn, thirty years after the outbreak of smallpox in Peru “the Inca population had been reduced at least by a half, and possibly by three-quarters”. Historian Donald R. Hopkins concurs with their assessment of the impact of smallpox upon the fall of the Incas. He highlights three principal factors which allowed the Spanish to overcome such overwhelming odds: “It was made possible by a lucky coincidence of Spanish valor and weaponry, Indian superstition, and smallpox”.

### **The History of Smallpox in Latin America**

The fall of the Aztec and Inca Empires did not hasten the demise of smallpox. Increased colonial movements over land and along the Latin American coast helped to spread the disease even further. The Portuguese colonization of Brazil led to outbreaks throughout the eastern half of South America. Sea links with Buenos Aires spread smallpox to the southern realms of the continent, and Spanish soldiers took the disease to Chile.

Major epidemics were to break out all across Latin America for the next one hundred years. While actual figures are variable, more than 20% of the population of the New World are believed to have died as a result of smallpox, with some claiming as much as 80%. Smallpox was finally eradicated in 1979, a fact officially recognized by the World Health Organization in 1980.

Sources:

Ian and Jenifer Glynn – *The Life and Death of Smallpox*, Cambridge University Press, 2004, ISBN 0521845424

Donald R. Hopkins – *The Greatest Killer: Smallpox in History*, University of Chicago Press, 1983, ISBN 0226351688

World Health Organization website – "Smallpox"

**Key idea #1**

**Key idea #2**

**Key idea #3**

**Key vocabulary (pick 2)**

Definition	Example (what it is or is not)	Definition	Example (what it is or is not)
Word		Word	
Drawing	Sentence	Drawing	Sentence

<p>Paragraph #: _____ Presentado por: _____</p> <p>Key idea #1:</p> <p>Key idea #2:</p>	<p style="text-align: center;"><b><u>Vocabulario</u></b></p> <p>Word: _____</p> <p>Definition:</p> <hr/> <p>Word: _____</p> <p>Definition:</p>
<p>Paragraph #: _____ Presentado por: _____</p> <p>Key idea #1:</p> <p>Key idea #2:</p>	<p style="text-align: center;"><b><u>Vocabulario</u></b></p> <p>Word: _____</p> <p>Definition:</p> <hr/> <p>Word: _____</p> <p>Definition:</p>
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<p>Paragraph #: _____ Presentado por: _____</p> <p>Key idea #1:</p> <p>Key idea #2:</p>	<p style="text-align: center;"><b><u>Vocabulario</u></b></p> <p>Word: _____</p> <p>Definition:</p> <hr/> <p>Word: _____</p> <p>Definition:</p>