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Jalyna

ESCUELA

Women Who Changed the World

NIVEL DE EDUCACIÓN SECUNDARIA / 4.º, 5.º Y 6.º AÑO INGLÉS

Palabras clave: Reading Strategies / Biographies / Role of Women / Oral production strategies

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Women Who Changed the World



Fuente: Pixabay

EDUCACIÓN SECUNDARIA / CICLO ORIENTADO Curso: 4.º, 5.º y 6.º año Inglés

Introduction

In the activities presented here, we will delve into our English language knowledge to comprehend and express biographical information. The focus this time is on practicing and reinforcing skills that we need to develop consistently to understand and speak a foreign language. This didactic sequence is designed with the aim of appreciating and highlighting those women who have made significant strides in building a more equitable landscape in terms of rights and opportunities that we continue to work towards every day. To explore the legacies of remarkable women who have made a mark in science, medicine, and farming, students will actively connect with various biographies of notable women who have played crucial roles in shaping the history of science.

At the end of these activities, the correct answers are provided alongside additional freely available resources for reference. This section also includes information on how these materials align with the topics included in the *Secondary School Curriculum Design*.

Outline of the Proposal

Stop 1. Can Women Be Scientists?

Activating vocabulary related to significant life events.

Skimming short biographies to get general information. **Scanning** the texts to get specific facts.

Stop 2. Magda Choque Vilca, the Queen of the Andean Potatoes

Reading for details to explore the life of women scientists.

Sequencing life events using different recording formats.

Stop 3. Women Scientists Who Changed the World

Reviewing and consolidating ways of talking about important present and past life events.

Presenting important events in the lives of women scientists.

Stop 1. Can Women Be Scientists?

To begin, students will read three short biographies of significant women from different time periods. Their task is to match each biography to the corresponding picture. This exercise not only engages students in reading comprehension but also encourages them to draw connections between the texts and images.

The second activity focuses on enhancing vocabulary through synonym recognition. Students will identify synonyms for the words in bold. This exercise not only improves their language skills but also expands their word bank.

In the following activity, students will revisit the biographies and engage in an exercise that involves completing sentences with the correct verbs in the past tense. This exercise not only reinforces their understanding of the biographies and key facts about the women featured in the text but also provides an opportunity to practice past tense verbs accurately.

Lastly, students will work in pairs to answer questions related to the biographies they have read. This collaborative task promotes discussion, critical thinking, and oral communication. The questions cover various aspects of the biographies, encouraging students to recall key details and share their interpretations.

In this section, you will read about the role of women in science. Women have been important in science for a long time. They have helped a lot. A long time ago, even in ancient Greece, women could study philosophy. But in the 1800s, they were not allowed to study science. Later in the same century, women's colleges started giving chances for women to learn science and work as scientists.

Activity 1

1. You'll read three short biographies about important women in world history. Then, match each story (1, 2, and 3) with the correct picture (A, B or C). 1. Marie Curie was born in Poland in 1867. A. However, in 1891, she moved to France. Marie studied subjects like radiation and atoms. She was **smart** and won two Nobel Prizes, which are very special awards for scientists. She became the first woman to win a Nobel Prize in 1903. Marie worked with her husband Pierre, and they discovered new elements like polonium and radium. She is considered a **pioneering** scientist in the field of radioactivity. Marie Curie's hard work and **discoveries** changed the world of science and inspired many other scientists, especially women, to follow their dreams.

2. Agnodice of Athens (4th century BCE) was a **brave** woman in ancient Greece. She wanted to be a doctor, but at that time, only men could be doctors. So, she **dressed up** as a man and studied medicine secretly. Agnodice helped many women who were **sick** and needed medical care. Later, people found out she was a woman, and they were surprised. But the women of Athens loved Agnodice because she was so caring and brave. She changed the rules in order that women could be doctors too.



Fuente: Wikipedia



Fuente: Museo Argentino de Ciencias Naturales Bernardino Rivadavia

3. In 1968, four brave women from Argentina **boarded** a ship named ARA Bahía Aguirre and traveled to Antarctica. These women were scientists at the Argentine Museum of Natural Sciences "Bernardino Rivadavia" (MACN) and were also connected to CONICET (National Council for Scientific and Technical Research).



Fuente: Flickr

Their names were Irene Bernasconi, María Adela Caría, Elena Martínez Fontes, and Carmen Pujals. They were the first Argentine female scientists to visit Antarctica. They went on a long journey to a place called Melchior Station in Antarctica. They collected samples of water and living beings, and they worked very hard for two and a half months in temperatures as low as -30 °C. Even after that, they kept doing **amazing** things. Carmen Pujals was the first Argentine woman to do **research** on the Malvinas Islands in 1971.

Activity 2

Identify the synonym (a or b) for the bold words.

1. smart		2. award	
a. Intelligent	b. uninformed	a. punishment	b. prize
3. pioneering		4. discoveries	
a. traditional	b. innovative	a. findings	b. concealments
5. brave		6. dress up	
b. fearless	a. timid	a. disguise	b. undress
7. sick		8. board	
a. unhealthy	b. healthy	a. embark	b. get off
9. amazing		10. research	
a. ordinary	b. incredible	a. disregard	b. investigation

Activity 3

Read the biographies and complete the sentences below.

 1. Marie Curie _______ to France in 1891 and ______ subjects like radiation and atoms. She ______ two Nobel Prizes. She ______ the first woman to win a Nobel Prize in 1903.

2. Agnodi	ce o	f Athens	to	be	а	doctor	but	only	men
		be doctors. She		asa	a m	nan and			
medicine.	The	women of Athens			_	Agnodic	e b	ecause	she
		so caring and brave. She				_ the ru	ıles i	n orde	r that
women		be doctors too.							

In 1968, four brave scientists ______ to Antarctica. They _____ the first Argentine female scientists to visit this place. They ______ samples of water and living beings, and they ______ very hard for two and a half months.

Activity 4

In pairs, work together to answer these questions.

- A. Individually, choose one text and answer the questions related to it.
- B. Go around the classroom and ask your classmates for help to answer the rest of the questions.
- When and where was Marie Curie born?
- What subjects did Marie Curie study?
- What special awards did Marie Curie win?
- Who did Marie Curie work with?
- Who was Agnodice of Athens?
- What did Agnodice want to become?
- Why did Agnodice dress up as a man?
- Who did Agnodice help with her medical skills?
- Who were the scientists from Argentina that traveled to Antarctica in 1968?
- What did these scientists do during their journey to Antarctica?
- What kind of work did Carmen Pujals do after the Antarctic campaign?

Stop 2. Magda Choque Vilca, the Queen of the Andean Potatoes

When we ask in school, university, or anywhere else about the most famous scientists in Argentina's history, we tend to recall male names like Bernardo Houssay, Luis Federico Leloir or César Milstein but female names do not easily come to mind, and this makes us wonder. Were there no female scientists or do we simply not know about them? However, in Argentina, there are many women who are dedicated to working and studying to become scientists. In fact, 51 % of scientific researchers are women.

In the following section, we will explore the biography of Magda Choque Vilca. She is among the many Argentine scientists who are actively contributing to the improvement of their communities.

Before presenting the reading activity, it's worth noting the historical significance of potatoes in various parts of the world. Potatoes have played a vital role in shaping the course of history. For instance, in Ireland, the Great Famine in the 19th century was exacerbated by the devastating potato blight, leading to a catastrophic impact on the population and influencing migration patterns. Similarly, in ancient civilizations like the Incas and the Aztecs, potatoes were a staple food source, showcasing their importance in sustaining societies. Introducing these historical anecdotes can provide students with a broader perspective on the cultural, social, and economic dimensions of potatoes, enriching their engagement with the reading activity.

Begin by introducing the topic of the reading activity - Magda Choque Vilca's journey and achievements in the field of agriculture. Highlight the importance of understanding her story and its significance. Pre-teach or discuss any potentially unfamiliar words or terms that might appear in the text, such as agricultural engineer, Andean potatoes, yacon, among others. This will help students grasp the content more easily. During the reading process, employ engagement strategies such as pausing to ask comprehension questions or discussing the significance of certain events.

Activity 1

A. In this activity, you will learn about a scientist named Magda Choque Vilca and her fascinating work with potatoes. Before reading the text, answer the questions below.



Fuente: Wikipedia

Do you ever eat or cook potatoes? How many ways of cooking potatoes do you know about? What dishes do you know that include potatoes? Which one is your favorite? What do you know about potatoes? How do potatoes grow? Where do they grow in Argentina? Where do potatoes come from?

- B. Look at the title and headings in the text. What do you think the text might be about? Write down three words you expect to find in the text.
- C. Choose the main idea of the text from the options provided below. Use the title and subtitle to help you find the correct answer.
 - A. Magda Choque Vilca's Passion for Cooking Traditional Dishes.
 - B. The Journey and Achievements of Magda Choque Vilca.
 - C. The Significance of Yacon in Magda Choque Vilca's Work.

D. Read the text carefully and complete the activities below.

Magda Choque Vilca: A Journey of Potatoes, Passion, and Progress

Early Life and Traveling



Fuente: Facebook

Magda Choque Vilca was born in 1962 in La Quiaca and grew up in Tilcara. She spent her childhood and teenage years traveling between the mountains, valleys, and *quebradas* because her parents had jobs that required moving around: her mom was a rural teacher and her dad worked for the postal service.

Becoming an Agricultural Engineer

She became an agricultural engineer after studying at the National University of Jujuy. Magda is also a speaker and a researcher. She's famous for being one of the top experts in the world when it comes to growing potatoes. They even call her "the queen of the Andean potatoes." Her interest in potatoes started because of her grandma Alejandrina, who used to make *Papa Huayco* (Magda's favorite dish) with *Tuni Morada* potatoes, which are creamy, along with cheese, onions, and tomatoes. She had a hard time finding these potatoes when she was studying in the city.

Potato Diversity and Yacon Introduction

Did you know that in Argentina, there are 62 different kinds of potatoes? And around the world, there are over 5000 kinds! Most of them are found in the Andes. It's interesting because in some stores, we usually only see a few types of potatoes. Magda also introduced people to yacon, a root vegetable that's like a crunchy green apple. These roots taste sweet and are rich in vitamins B1, B, and C.

Fostering Education and Empowerment

In 2009, Magda worked with the government, native groups, farmers, and people who work together to create the Regional Cooking School in Tumbaya which is a small town with less than 500 people in Jujuy. It's the first cooking school for regional food in Argentina and Latin America. It's free for everyone.

Nowadays, Magda talks about how to take care of the environment and the important role women have in farming

This information about Magda Choque Vilca's early life has been drawn and adapted from two sources, namely Ensinck (May 11, 2023) and Hadad (October 12, 2020).

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- E. Read the text about Magda Choque Vilca. Match each question to the correct answer (a, b, or c) below.
 - 1. Where was Magda Choque Vilca born?
 - a) Tilcara.
 - b) La Quiaca.
 - c) Jujuy.
 - 2. What did Magda's parents do for a living?
 - a) They were farmers.
 - b) They worked for the government.
 - c) Her mom was a rural teacher, and her dad worked for the postal service.
 - 3. What did Magda become after studying at the National University of Jujuy? a) A doctor.
 - b) An agricultural engineer.
 - c) A chef.
 - 4. What is Magda famous for in the world of agriculture?
 - a) Growing flowers.
 - b) Growing potatoes.
 - c) Growing corn.

- 5. Why did Magda become interested in potatoes?
 - a) She loved the taste of potatoes.
 - b) Her grandma used to make dishes with potatoes.
 - c) She found potatoes easy to grow.
- 6. What kind of root vegetable did Magda introduce people to?
 - a) Carrots.
 - b) Yacon.
 - c) Apples.

7. In which year did Magda help create the Regional Cooking School in Tumbaya?

- a) 2000.
- b) 2010.
- c) 2009.
- 8. What role do women have in farming, according to Magda?
 - a) They have no role in farming.
 - b) They play an important role.
 - c) They only work in cooking.
- F. In groups, you're going to create a visual summary of Magda Choque Vilca's story using a timeline.
 - Imagine the timeline as a journey through Magda's life and achievements.
 - On a piece of paper write these sections: *Introduction*, *Early Life*, *Career and Contributions*.
 - In the *Introduction* section, write a short sentence about *what the story is about*, like a headline.
 - In the Early Life section, write a few points about where Magda grew up and what her parents did.
 - In the Career section, provide some information about what Magda studied and what she became known for.
 - In the *Contributions* section, list her accomplishments and how she made a difference.
 - Once you're done, you can present your story map to the other groups.

Stop 3. Women Scientists Who Changed the World

Now that we've learned about various women scientists throughout history, it's time to put your knowledge to the test. Let's see how much you remember and understand from the information you've read. Your task is to complete the chart below by filling in the missing details. Carefully read the instructions provided and complete the chart.

Activity 6

A. Look at the chart below, which includes the names of the women scientists we have learned about.

- Fill in the missing information for each scientist in the respective columns.
- Use the information you've learned from the readings to complete the chart.
- Choose a different woman scientist from history.
- Research her life, important years, contributions, and achievements.
- Complete the chart with the information you found.
- Share the information you found about the woman scientist you researched with your classmates and teacher.

Name	Important Years	Country	Major Events and Achievements
Agnodice of Athens	Born on 4th century BCE		Disguised herself as a man to become a doctor
Marie Curie		Poland/France	
Irene Bernasconi, María Adela Caría, Elena Martínez Fontes, Carmen Pujals	1968 - Antarctic expedition		
Magda Choque Vilca			

B. In groups, try to answer the questions on the cards your teacher will give you.

- Remember, you can't read the biographies we previously discussed.
- The group that correctly names more scientists will be the winner.

These activities are designed to help students review and consolidate their understanding of the women scientists discussed in the lesson. By completing the chart, students will engage with key information from the readings and reinforce their knowledge about each scientist's background and achievements. You can help students by offering a list of women scientists from which they can choose, one per group. If the school has an internet connection, they can use their smartphones to gather information.

In the last activity, the game, students will reinforce their understanding of women scientists discussed in the lesson and engage with key information about their backgrounds and achievements.

- To play the following game, students can work in groups of 6.
- Each group chooses one question card from the set.
- Once a card is selected, a student from the group reads the question aloud to the whole class.
- The group tries to answer the question.
- If the group cannot come up with the answer, other groups have the chance to offer a response.
- $\circ~$ If a group successfully answers the question, they earn a point for their team.

Below there are some questions you can adapt according to your students' English proficiency levels, making them more straightforward or challenging as necessary.

Find a scientist(s) that:

- had to lie to achieve a goal. Why did she lie?
- played a crucial role in promoting women's involvement in the field of medicine.

How did she do it?

- helped many women who were sick and needed medical care. Where was she born?
- was loved by women because she helped them when they were sick. When was she born?
- \circ suffered extreme cold to do their work. How cold was that?

- \circ traveled far to do their work. Where was that?
- took a special means of transport to do their work. What means of transport was that?
- \circ conducted research on the Malvinas Islands. When was that?
- was the first woman to win a Nobel Prize. When did she receive the first Nobel Prize?
- that specialized in the study of elements like polonium and radium. With whom did she work?
- made groundbreaking contributions to the study of radiation and atoms. Where was she born?
- collaborated with her husband in significant scientific discoveries and received two Nobel Prizes. When did she move to France?
- introduced people to a root vegetable that tastes like a crunchy green apple. What is that vegetable called?
- became an agricultural engineer. What is she renowned for?
- created the Regional Cooking School. Where is the Cooking School located? When was it established?
- focused on the exploration and preservation of unique ecosystems in remote locations. Where did they go?

Answer Key

Stop 1. Activity 1

1. You'll read three short biographies about important women from world history. Then, match each story (1, 2, and 3) with the correct pictures (A, B and C).

1. C.

2. A.

3. B.

Stop 1. Activity 2

Identify the synonym (a or b) for the bold words.

1. smart		2. award	
a. intelligent	b. uninformed	a. punishment	b. prize
3. pioneering		4. discoveries	
a. traditional	b. innovative	a. findings	b. concealments
5. brave		6. dress up	
b. fearless	a. timid	a. disguise	b. undress
7. sick		8. board	
a. unhealthy	b. healthy	a. embark	b. get off
9. amazing		10. research	
a. ordinary	b. incredible	a. disregard	b. investigation

Stop 1. Activity 3

Read the biographies and complete the sentences below.

1. Marie Curie **moved** to France in 1891 and **studied** subjects like radiation and atoms. She **won** two Nobel Prizes. She **became** the first woman to win a Nobel Prize in 1903.

2. Agnodice of Athens wanted to be a doctor but only men could be doctors. She **dressed up** as a man and studied medicine. The women of Athens **loved** Agnodice because she **was** so caring and brave. She **changed** the rules in order that women **could** be doctors too.

In 1968, four brave scientists **traveled** to Antarctica. They **were** the first Argentine female scientists to visit this place. They **collected** samples of water and living beings, and they **worked** very hard for two and a half months.

Stop 2. Activity 1

D. Choose the main idea of the text from the options provided below. Use the title and subtitle to help you find the correct answer.

A. Magda Choque Vilca's Passion for Cooking Traditional Dishes.

B. The Journey and Achievements of Magda Choque Vilca.

C. The Significance of Yacon in Magda Choque Vilca's Work.

E. Read the text about Magda Choque Vilca. Match each question to the correct answer (a, b, or c) below.

1. Where was Magda Choque Vilca born?

b) La Quiaca.

- 2. What did Magda's parents do for a living?
- c) Her mom was a rural teacher, and her dad worked for the postal service.
- 3. What did Magda become after studying at the National University of Jujuy?

b) An agricultural engineer.

4. What is Magda famous for in the world of agriculture?

b) Growing potatoes.

5. Why did Magda become interested in potatoes?

b) Her grandma used to make dishes with potatoes.

6. What kind of root vegetable did Magda introduce people to?

b) Yacon.

7. In which year did Magda help create the Regional Cooking School in Tumbaya?

c) 2009.

- 8. What role do women have in farming, according to Magda?
- b) They play an important role.

Stop 3. Activity 1

Look at the chart below, which includes the names of the women scientists we've learned about. Fill in the missing information for each scientist in the respective columns.

Name	Important Years	Country	Major Events and Achievements
Agnodice of Athens	Born on 4th century BCE	Ancient Greece	Disguised herself as a man to become a doctor
Marie Curie	Born in 1867	Poland/France	Pioneering radioactivity researcher, Nobel Prize winner
Irene Bernasconi, María Adela Caría, Elena Martínez Fontes, Carmen Pujals	1968 - Antarctic expedition	Argentina	First Argentine female scientists in Antarctica
Magda Choque Vilca	1962	Argentina	Agricultural engineer, expert in potatoes, founder of Regional Cooking School

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FICHA TÉCNICA

Secuencia: Women Who Changed the World **Nivel:** Ciclo Orientado de la Educación Secundaria **Grados sugeridos:** 4.°, 5.° y 6.° año **Espacio curricular:** Inglés

Inglés Eje/s curricular/es:

- Lectura y producción escrita.
- Producción oral.
- Reflexión sobre el lenguaje, la lengua (sistema, norma y uso) y los textos.

Objetivos:

- Enriquecer el bagaje lingüístico y cultural de los estudiantes y propiciar el reconocimiento y la revalorización de la diversidad lingüística.
- Activar el conocimiento previo y reciclar aprendizajes de años anteriores respecto de expresiones útiles para comprender y narrar historias de vida de otras personas.
- Sostener y generar una continuidad en el desarrollo de micro- y macrohabilidades para el abordaje de textos escritos y orales.
- Ampliar y fortalecer su capacidad de expresar y compartir emociones, ideas, conocimientos y opiniones por medio de la lengua extranjera.
- Utilizar el lenguaje de manera cada vez más libre, personal y autónoma para reconstruir y comunicar experiencias ajenas.

Aprendizajes y contenidos:

- Revisión de un repertorio léxico que posibilite la comprensión, la práctica y el uso respecto de eventos y logros en la vida de personajes destacados.
- Utilización de las estructuras en contexto para expresar cuestiones inherentes a la vida personal y social y a nuestros orígenes a través de biografías de mujeres científicas de la Argentina y del mundo.
- Exposición a textos secuenciados en distintos tiempos verbales en las biografías de mujeres reconocidas en el mundo científico.
- Desarrollo de habilidades de lectura a partir del uso de textos con distintas extensiones y dificultades (*Skimming: reading for general information and Scanning: reading for specific information*).
- Desarrollo de habilidades de producción oral de textos propios del nivel, con estructuras variadas y foco situado en la expresión de las historias de científicas renombradas de distintos períodos de la historia.

Sobre la producción de este material

Los materiales de *Hacemos Escuela* se producen de manera colaborativa e interdisciplinaria entre los distintos equipos de trabajo.

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comunidad de prácticas: La clase en plural

La Comunidad de prácticas es un espacio de generación de ideas y reinvención de prácticas de enseñanza, donde se intercambian experiencias para hacer escuela juntos/as. Las/os invitamos a compartir las producciones que resulten de la implementación de esta propuesta en sus instituciones y aulas, pueden enviarlas a hacemosescuela@isep-cba.edu.ar



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