

WOMEN IN SCIENCE

International Day of Women and Girls in
Science, 11 February

LANGUAGE	CONTENT	TEACHING METHOD
GRAMMAR: Past simple/continuous; Conjunctions	Stereotype Definition & Meaning	Articles, videos/film
VOCABULARY: art and science	The Matilda Effect	Fun games and activities (role playing)
COMMUNICATIVE FUNCTION: express contrast and reason	Who was Frida Kahlo ?	Boards/art and crafts

CONTENT AND LANGUAGE INTEGRATED LEARNING

Image Bestseller Show	Cast Edition Audience		Astronomy Biology Chemistry	Organism Science Scientist
gallery culture interval	band poster plot		evolution experiment element	theory observe microbiology
exhibition album review	channel scene drawing		hypothesis laboratory meteorology	energy photograph genetics
collage	pattern		observatory	gravity
balance	contrast		physics	geology

VOCABULARY *(ART AND SCIENCE)*

PAST SIMPLE	PAST CONTINUOUS
<p>Use:</p> <ul style="list-style-type: none"> finished actions, states or habits in the past. For stories or lists of events, we often use the past simple for the actions in the story and the past continuous for the background. 	<p>Use:</p> <ul style="list-style-type: none"> actions and states in progress (happening) around a particular time in the past. It can emphasise that the action or state continued for a period of time in the past.
<p>As a general rule, the past simple tense is formed by adding the ending “-ed” to the verb infinitive.</p> <p>Ex: <i>to walk — walked // to answer — answered</i></p>	<ul style="list-style-type: none"> Background events. To give a reason or context for an event
<p>To make questions using the past simple, we can use ‘did’ plus the subject and the verb infinitive. Ex: <i>Did you play the piano?</i></p>	<p>The past continuous tense is formed with the past simple of the verb to be + -ing form of the main verb</p>
<p>To make a negative statement with the past simple, we can add ‘did not’ or ‘didn’t’ between the subject and the verb infinitive. Ex: <i>she didn’t play the piano</i></p>	<p>Ex: <i>she was visiting her family;</i> <i>you weren’t wearing that red dress;</i> <i>Were you watching tv...?</i></p>

- ▶ Conjunctions are linking words like: **and, or, but, then** and **because**.
 - *They knocked down all the houses **and** they built a car park.*
 - *Are there four **or** five people living in that house?*
 - *My shoes look great **but** are not very comfortable.*
- ▶ Some coordinating conjunctions have two parts: **either ... or ..., neither ... nor ..., both ... and ...**:
 - You can drink chocolate milk **either** hot in the winter **or** cold in the summer.
 - **Neither** Lisa **nor** Helena had been to Italy before. (Lisa hadn't been to Italy before and Helena hadn't been to Italy before.)
 - **Both** you **and** I know what really happened. (You know and I know what happened.)
- ▶ Common subordinating conjunctions are: **after, (al)though, as, before, if, since, that, until, when, whereas, while, once, so, as soon as, provided that**. When a clause follows these conjunctions, it becomes a subordinate clause, which needs a main clause to make a complete sentence.
- ▶ Some subordinating conjunctions consist of more than one word: **as long as, as soon as, except that, in order that, so as to, provided that**

CONJUNCTIONS

► **Adverb clauses of cause or reason** are introduced by the subordinating conjunctions **because, as, since** and **that**.

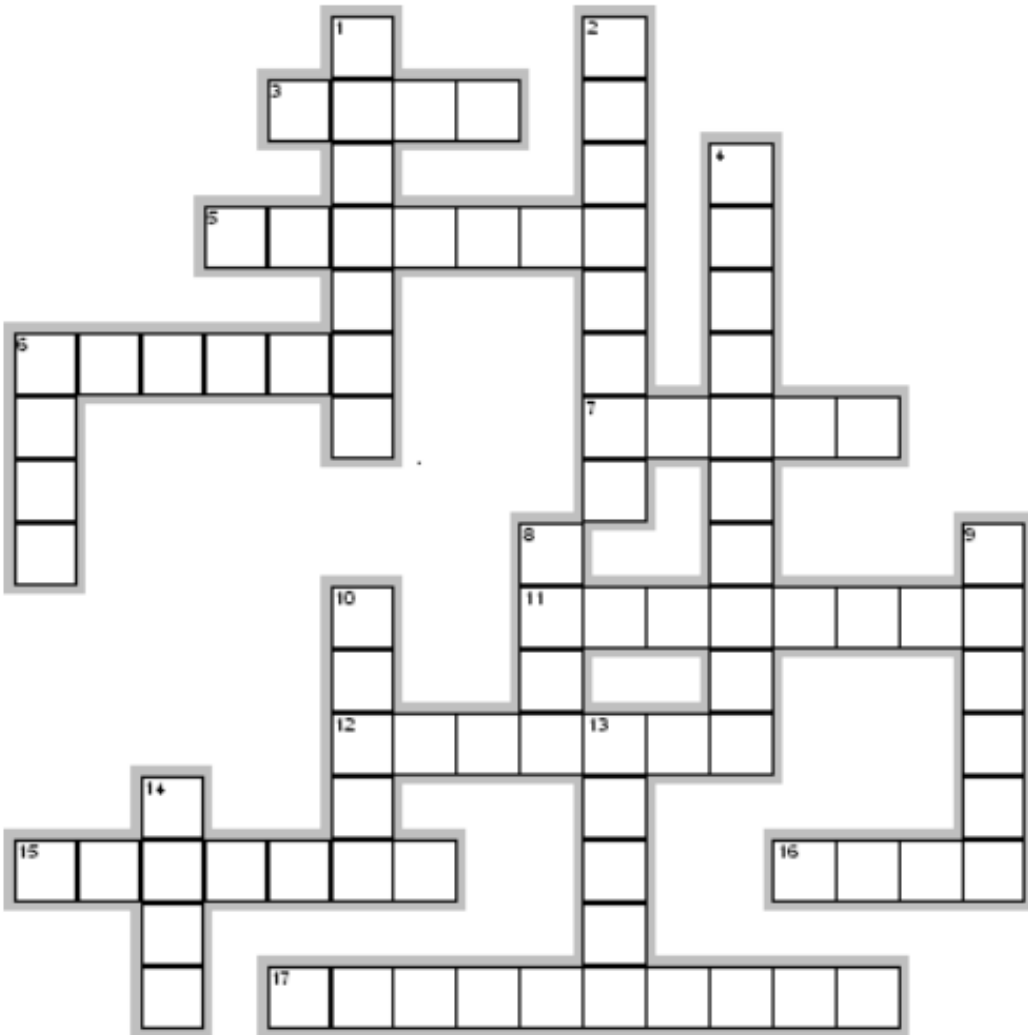
- *I sing **because I like singing**.*
- *He thinks he can get anything **because he is rich**.*
- ***Since he has apologized** we will take no further action against him.*
- ***As he was not there** I left a message with his mother.*
- *I am glad **that you have come**.*
- *My parents were disappointed **that I didn't get the scholarship**.*
- *He was furious **that his book was panned by most reviewers**.*

ADVERB CLAUSES OF CAUSE OR REASON

EXERCISES

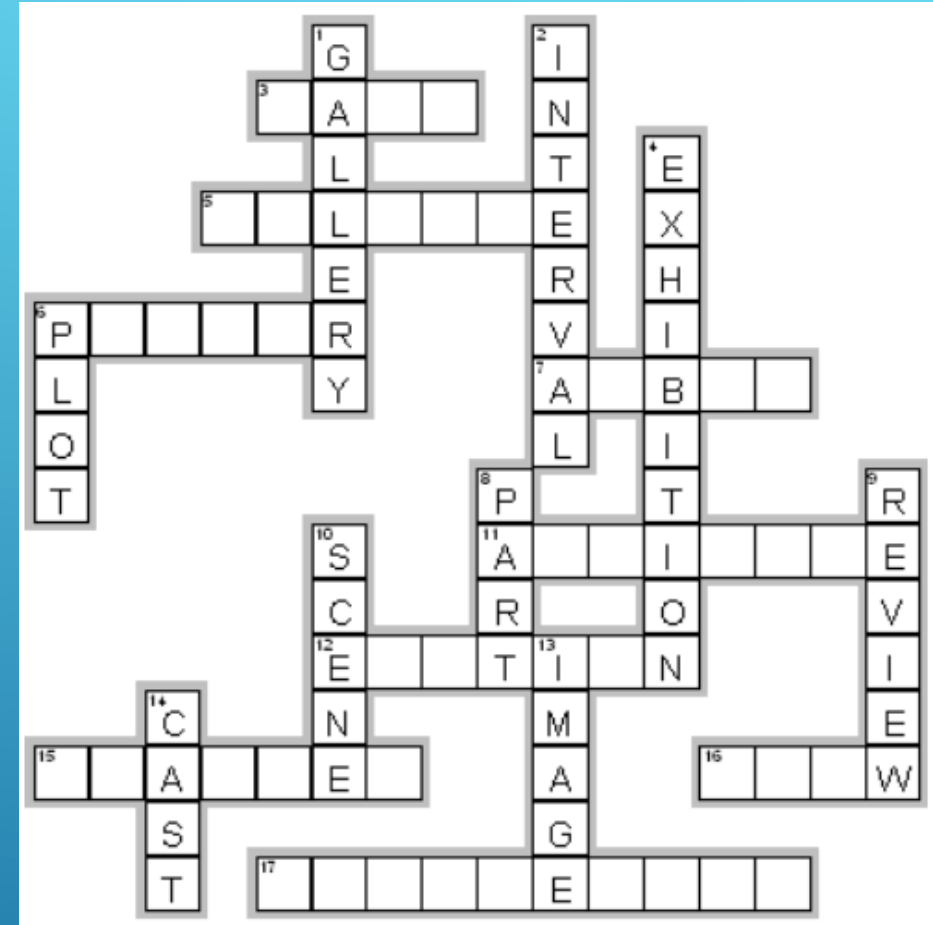
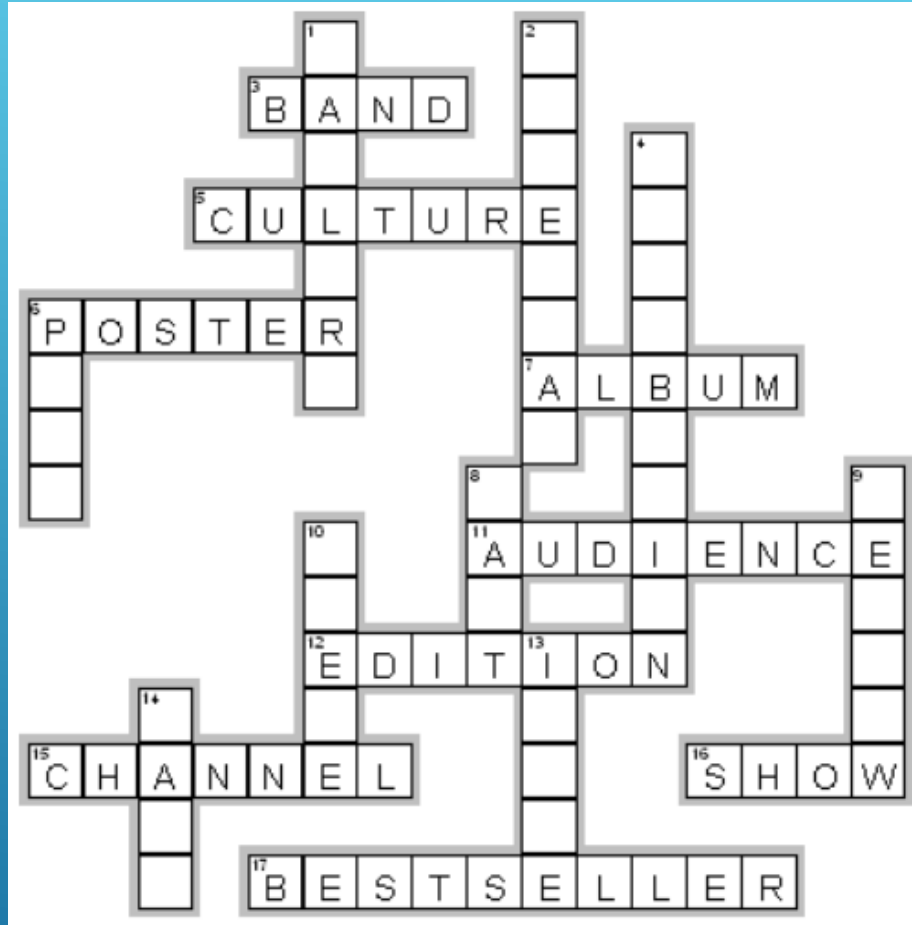
Several thin, white, parallel diagonal lines are positioned in the bottom right corner of the slide, extending from the right edge towards the center.

Crossword - ARTS & MEDIA



Down

1. A room or building which is used for showing works of art.
2. A short period of time between the parts of a play, performance, etc.
4. When objects such as paintings are shown to the public.
6. The story of a book, film, play, etc.
8. A person in a play or a film.
9. A report in a newspaper, magazine or programme that gives an opinion about a new book, film, etc.
10. A view or picture of a film, play or show.
13. A picture, especially on film or television or on a screen.
14. All the actors in a film, a play or a show.



SOLUTION

Mixed sentences - ARTS & MEDIA

Rearrange the words to make complete sentences.

1. is / band / a / tonight / playing / there / jazz
2. channel / DNB / news / best / is / the
3. album / their / new / you / have / heard / ?
4. an / show / the / on / night / television / was / last / there / interesting
5. favourite / of / lots / posters / have / I / singer / of / my
6. can / Paris / in / culture / of / lots / you / living / experience
7. Byzantine / exhibition / at / museum / the / art / there / is / of / an
8. performance / minute / will / ten / a / be / there / interval / through / the / halfway
9. important / the / play / in / part / plays / my / an / friend
10. Gallery / the / art / Britain / in / National / the / biggest / has / collection

1. There is a jazz playing tonight.
2. Have you heard their new?
3. DNB is the best news
4. There was an interesting on the television last night.
5. I have lots of of my favourite singer.
6. You can experience lots of living in Paris.
7. There is an of Byzantine art at the museum.
8. There will be a ten minute halfway through the performance.
9. My friend plays an important in the play.
10. The National has the biggest art collection in Britain.
11. There were lots of children sitting in the
12. His book is likely to become another
13. The of the film are all famous actors.
14. There are paperback and hardback of the dictionary.
15. The of the war shown on the news were disturbing.

GAP FILL SENTENCES

ARTS & MEDIA



1. There is a Jazz band playing tonight.
2. Have you heard their new album?
3. DNB is the best news channel.
4. There was an interesting show on the television last night.
5. I have lots of posters of my favourite singer.
6. You can experience lots of culture living in Paris.
7. There is an exhibition of Byzantine art at the museum.
8. There will be a ten minute interval halfway through the performance.
9. My friend plays an important part in the play.
10. The National Gallery has the biggest art collection in Britain.
11. There were lots of children sitting in the audience.
12. His book is likely to become another bestseller.
13. The cast of the film are all famous actors.
14. There are paperback and hardback editions of the dictionary.
15. The images of the war shown on the news were disturbing.

SOLUTION



“ IF YOU BELIEVE THE HISTORY BOOKS, SCIENCE IS A GUY THING. DISCOVERIES ARE MADE BY MEN, WHICH SPUR FURTHER INNOVATION BY MEN, FOLLOWED BY ACCLAIM AND PRIZES FOR MEN. BUT TOO OFTEN, THERE IS AN UNSUNG WOMAN GENIUS WHO DESERVES JUST AS MUCH CREDIT. ”

– *Timeline Series on The Matilda Effect*

The Matilda Effect: Women Scientists Erased From the History Books

In 1993, Margaret Rossiter coined the phrase the “**Matilda Effect**” to describe a systematic bias whereby a woman is ignored, denied credit, or dropped immediately from sight in favor of a man who ends up taking all the credit for her groundbreaking work in the field of science.

The Matilda Effect was named after the suffragist, **Matilda Joslyn Gage** whose own work was overlooked. Gage was a women’s rights advocate who helped lead and publicize the woman suffrage movement in the United States.

Gage was also the first known American woman to write about women in science, publishing “**Woman as an Inventor**” through which she mentions inventions women have made that have led to technological progress in the nation. Some of these inventions she listed were: the baby carriage, the furnace for smelting ore, and the gimlet point screw.

READING COMPREHENSION

What would have happened if **Albert Einstein**, **Alexander Fleming** and **Erwin Schrödinger** had been born as women? Well, most likely we would not even know who they are today, because all the credit for their discoveries would have been given to male colleagues. This injustice is the same one that has systematically rendered **brilliant female scientists** such as Lise Meitner, Henrietta Swan Leavitt and Rosalind Franklin invisible.

The lack of such role models is having a negative impact on the aspirations of today's women and contributing to **a low representation of women in STEM degrees (Science, Technology, Engineering, and Mathematics)**. In this context, female invisibility in science weighs on the possible future of tomorrow's professional world.

The **#NoMoreMatildas** asociación aims to reclaim these women by bringing them into textbooks, so they can become inspiring role models for girls that have been leaded to believe that science is only for man. Through the discoveries, findings and contributions of these brave women, we want to arouse scientific interest among young girls and teenagers.

1) What changes can you see in the second picture?

- ▶ Einstein is older
- ▶ Einstein is a woman
- ▶ Einstein is younger

2) Who is more famous in this video?

- ▶ A male scientist
- ▶ A female scientist
- ▶ Both

3) *Fill the gap:* The Matilda Effect is a name in honour of _____ Joslyn Gage

4) *Put the words in order:*

the brilliant defended scientists women discoveries She of

5) Are there more...

- ▶ female scientists?
- ▶ male scientists?

NO MORE MATILDAS
VIDEO QUIZ QUESTIONS

6) What percentage of women scientists appear in textbooks?

- ▶ 6,7%
- ▶ 76%
- ▶ 7,6%

7) Are there many women studying Science at University?

- ▶ Yes, there are
- ▶ No, there aren't

8) Fill the gap: _____ has no gender

9) Fill the gap: If they want, they _____



FRIDA KAHLO

- ▶ **Magdalena Carmen Frida Kahlo y Calderón** (July 6, 1907 – July 13, 1954), usually known as **Frida Kahlo**, was a Mexican painter. She was known for her surreal and very personal works. She was married to Diego Rivera, also a well-known painter.
- ▶ Frida was born in Coyoacán, Mexico. She had polio that left her disabled when she was 6 years old
- ▶ She studied medicine and planned to become a doctor. However, at age 18, she was in a traffic accident that badly injured her. Because of the severe pain she lived in, she did not continue her medical studies. Frida began painting, using ideas about things that had happened to her. Her paintings are often shocking in the way they show pain and the harsh lives of women, especially her feelings about not being able to have children.

- ▶ Frida was born in Mexico, but her father was German.
- ▶ Her name, which was originally spelled "Frieda" means "peace" in German.
- ▶ Frida survived both polio and a bus crash.
- ▶ She married a man with a name even longer than hers. Her husband's full name was Diego María de la Concepción Juan Nepomuceno Estanislao de la Rivera y Barrientos Acosta y Rodríguez.
- ▶ She exaggerated her facial hair in her self-portraits.
- ▶ Because of the bright clothing she wore, she was asked by children, "Where's the circus?"
- ▶ She was born and died in the same house, called "La Casa Azul" (The Blue House), which is now known as Frida Kahlo Museum.

INTERESTING FACTS ABOUT FRIDA KAHLO

- ▶ *"They thought I was a Surrealist, but I wasn't. I never painted dreams. I painted my own reality."*
- ▶ *"I paint flowers so they will not die."*
- ▶ *"At the end of the day, we can endure much more than we think we can."*
- ▶ *"Nothing is worth more than laughter."*
- ▶ *"The most important part of the body is the brain. Of my face, I like the eyebrows and eyes."*

FRIDA KAHLO QUOTES



FILM

- ▶ As the United States raced against Russia to put a man in space, **NASA** found untapped talent in a group of African-American female mathematicians that served as the brains behind one of the greatest operations in U.S. history.
- ▶ Based on the unbelievably true life stories of three of these women, known as "**human computers**", we follow these women as they quickly rose the ranks of NASA alongside many of history's greatest minds specifically tasked with calculating the momentous launch of astronaut John Glenn into orbit, and guaranteeing his safe return. **Dorothy Vaughan, Mary Jackson, and Katherine Goble Johnson** crossed all gender, race, and professional lines while their brilliance and desire to dream big, beyond anything ever accomplished before by the human race, firmly cemented them in U.S. history as true American heroes.

HIDDEN FIGURES