



# Caladenia



G'day Everybody,

This week's activity pack is based on International Women's day, and UK Mothering Sunday!

Happy UK Mother's Day to you all (for all our British Members), whether you are a Mother, Godmother, Motherly figure, single parent who plays both roles, wherever you fit into this day, we hope you have a great day.

Enjoy!

Have a great week everybody, stay safe!

The Caladenia Team

# WOMEN IN CHEMISTRY HISTORY



**MARIE-ANNE PAULZE LAVOISIER**  
BORN 1758 DIED 1836

Married chemist Antoine Lavoisier and received training in chemistry. Worked with Lavoisier editing and drawing his methods so they could be understood.



**MARIE SKŁODOWSKA CURIE**  
BORN 1867 DIED 1934

Carried out pioneering research on radioactivity. The first woman to win a Nobel Prize, and the only person to win a Nobel Prize in two different sciences.



**ALICE AUGUSTA BALL**  
BORN 1892 DIED 1916

Developed an injectable oil which was the most effective treatment for leprosy until the 1940s. She died before the results of her work were published.



**GERTY THERESA CORI**  
BORN 1896 DIED 1957

Helped establish how glycogen is broken down in muscles then remade and stored as an energy source (the Cori Cycle). She jointly won a Nobel Prize for her work.



**IDA EVA NODDACK**  
BORN 1896 DIED 1978

She was the first person to propose the idea of nuclear fission, which she suggested in 1934. She was also the co-discoverer of rhenium, in 1925.



**IRÈNE JOLIOT-CURIE**  
BORN 1897 DIED 1956

Daughter of Marie Curie. A joint Nobel Prize in Chemistry winner in 1935 with Frédéric Joliot-Curie for their discovery of and work on artificial radioactivity.



**KATHLEEN LONSDALE**  
BORN 1903 DIED 1971

Pioneered use of X-rays to study crystals, and also used the technique to confirm that a benzene ring is flat. A form of carbon, Lonsdaleite, is named after her.



**DOROTHY MARY HODGKIN**  
BORN 1910 DIED 1994

Used X-ray crystallography to determine the structure of vitamin B<sub>12</sub>, for which she won a Nobel Prize. She went on to decipher the structure of insulin.



**GERTRUDE BELLE ELION**  
BORN 1918 DIED 1999

Developed numerous drugs, including the first immunosuppressive drug used for organ transplants. Jointly won the 1988 Nobel Prize in Medicine or Physiology.



**ROSALIND FRANKLIN**  
BORN 1920 DIED 1958

Made X-ray diffraction images of DNA, crucial in allowing DNA's structure to be discerned. This contribution wasn't fully acknowledged until after her death.



**MARIE MAYNARD DALY**  
BORN 1921 DIED 2003

Thought to have been the first Black American woman to earn a PhD in chemistry, in 1947. She later researched effects of cigarette smoke on the lungs.



**STEPHANIE KWOLEK**  
BORN 1923 DIED 2014

Developed the polymer Kevlar and won many awards for her work on polymer chemistry. Also developed the 'nylon rope trick' chemistry demonstration.



## Famous Women in the Millennium

A H M A R I E C U R I E  
N J A N E A U S T E N A  
E P K V U G H L M A Z B  
J O D Q L C S I J F D C  
O C E B E T S Y R O S S  
A A F H A N T H O N Y E  
N H I L U I O A Z K J A  
O O J P M X W F B W X R  
F N K A V Y E G H I E H  
A T L G I N S B U R G A  
R A R O S A P A R K S R  
C S D I C K I N S O N T

Joan of Arc  
Pocahontas  
Calamity Jane  
Marie Curie

Jane Austen  
Betsy Ross  
(Susan B.) Anthony  
(Harriet Beecher) Stowe

(Ruth Bader) Ginsburg  
(Emily) Dickinson  
(Amelia) Earhart  
Rosa Parks

# Famous Women Quiz

1. Who was the last active Pharaoh in Egypt?
2. Name the fashion designer who founded the label Chanel?
3. Who was the mother of Queen Elizabeth I?
4. Can you name the female British author known for crime fiction?
5. Monaco has two Princesses, what are their names?
6. Who was 'Maria' in 'The Sound of Music'?
7. Can you name a famous song by Aretha Franklin?
8. What is the name of Prince William's wife?
9. What element did Marie Curie discover?
10. Who was the first woman to lead a Muslim country?
11. Which African American woman is a chat show icon in the U.S.A?
12. Which sister wrote 'Jane Eyre': Charlotte, Emily or Anne Bronte?
13. Who sings 'Material Girl'?
14. Which was the first English royal princess to be prosecuted in Crown Court?
15. Which American film star married a European Prince in the 1950s?
16. Which French film star became an influential animal activist?
17. Who wrote 'Middlemarch'?
18. Who played Morticia Addams in the TV series 'The Addams Family'?
19. Which English queen was beheaded by her cousin?
20. Who is the current number one female tennis player in the world?



Can you spot 6 differences in these two pictures?





## INVENTIONS BY WOMEN THAT THE WORLD CAN'T LIVE WITHOUT



### Marion Donovan

The inspiration for the Disposable Nappy/Diaper Mother Marion Donovan began inventing what would eventually become the disposable diaper when she got tired of the never-ending washing. Donovan's first invention came in the late 1940s when she took a shower curtain and sewed it into a waterproof cloth diaper cover. After the product was panned by manufacturers, she continued to improve on the design including adding plastic snaps and branding the item as the "boater." Finally, Donovan was able to sell the product to Saks Fifth Avenue and later sold her company, along with the patents, for a cool \$1 million. In 1961, Victor Mills used the product as inspiration to create the first disposable diapers, Pampers.



### Hedy Lamarr

Use of Frequency-hopping radio to safeguard the Allies in WWII The Austrian beauty was more than just another pretty face; she was an accomplished Radio Engineer. Together with George Anthiel, Hedy developed the 'Secret Communication System'; the manipulation of radio frequencies to keep wireless safe and private. Their creation led to the formation of an unbreakable code to prevent classified messages from being intercepted by enemy codebreakers in WWII.



### Tabitha Babbitt

The Circular Saw Tabitha belonged to a religious sect called 'Shakers' which branched off from a Quaker community in Massachusetts in 1810. She was weaving at home one day when she watched men cutting wood with a pit saw, which is a two handled saw that requires two men to pull it back and forth. Though the saw is pulled both ways, it only cuts wood when it is pulled forward; the return stroke is useless. She decided then to lighten the burden of her brethren; she made a saw prototype by attaching a circular blade to her spinning wheel so that the back-and-forward movement of the saw produced results. Tabitha also helped to revolutionize the manufacture of false teeth.



### **Marie Van Britten Brown**

Marie Van Brittan Brown was a nurse and an inventor. She was the inventor of the home security system in 1966, along with her husband Albert Brown. In the same year, they jointly applied for a patent, which was granted in 1969. Brown was born in Jamaica, Queens, New York; she died there at the age of 76.



### **Sarah Elisabeth Goode**

Born into slavery in 1850, inventor and entrepreneur Sarah E. Goode went on to become the first African American woman to be granted a patent by the U.S. Patent and Trademark Office, for her invention of a folding cabinet bed in 1885. After receiving her freedom at the end of the Civil War, Goode moved to Chicago and eventually became an entrepreneur. Along with her husband Archibald, a carpenter, she owned a furniture store. Many of her customers, who were mostly working-class, lived in small apartments and did not have much space for furniture, including beds. As a solution to the problem, Goode invented a cabinet bed, which she described as a "folding bed," like what nowadays would be called a Murphy bed. When the bed was not being used, it could also serve as a roll-top desk, complete with compartments for stationery and other writing supplies. Goode received a patent for her invention on July 14, 1885. She died in 1905.

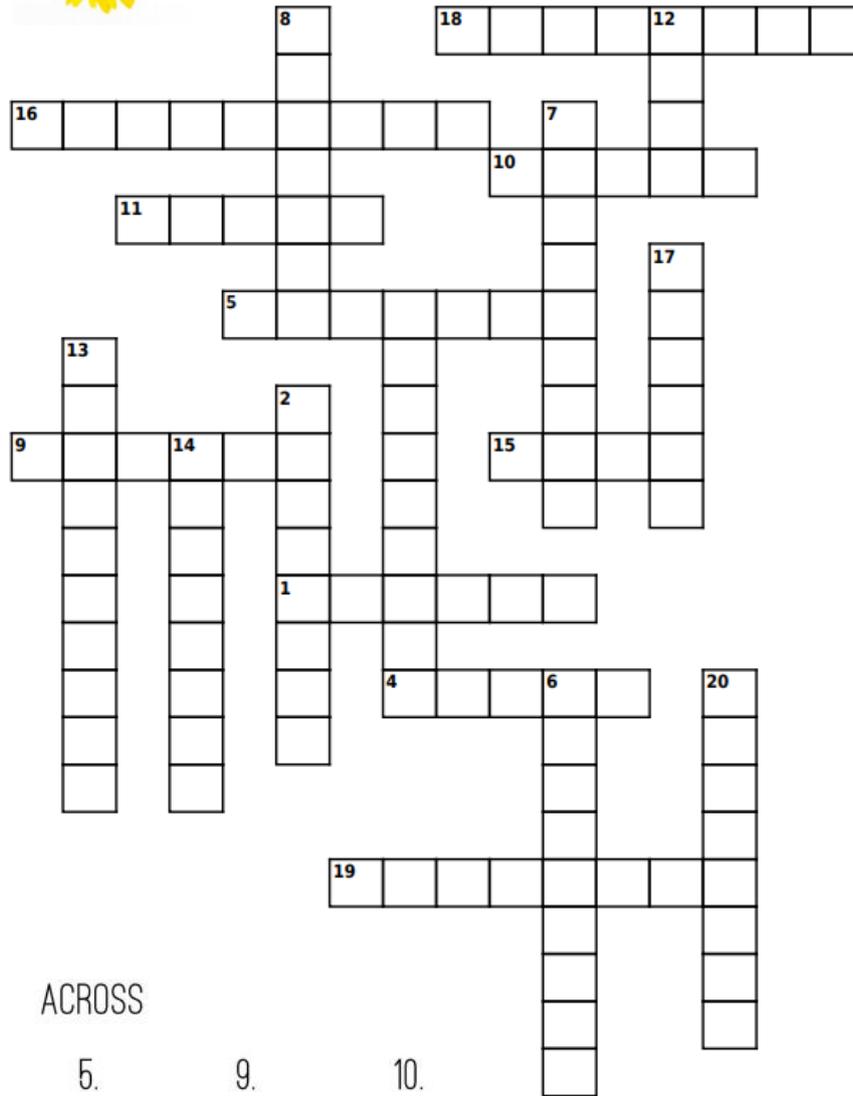


### **Dr Patricia Era Bath**

In 1981, Bath began working on her most well-known invention: the Laserphaco Probe (1986). Harnessing laser technology, the device created a less painful and more precise treatment of cataracts. She received a patent for the device in 1988, becoming the first African American female doctor to receive a patent for a medical purpose. She also holds patents in Japan, Canada and Europe. With her Laserphaco Probe, Bath was able to help restore the sight of individuals who had been blind for more than 30 years. In 1993, Bath retired from her position at the UCLA Medical Center and became an honorary member of its medical staff. That same year, she was named a "Howard University Pioneer in Academic Medicine." Among her many roles in the medical field, Bath was a strong advocate of telemedicine, which uses technology to provide medical services in remote areas.



# FLOWERS Crossword



## ACROSS

1.



4.



5.



9.



10.



11.



15.



16.



18.



19.



## DOWN

2.



3.



6.



7.



8.



12.



13.



14.



17.



20.





1. Endearment term for Earth
2. She fetched her poor dog a bone.
3. Who is Carrie Fischer's mother?
4. A head nun
5. She fell in love with her employer and raised his seven children.
6. Alcoholic spirit known as "Mother's Ruin".
7. What cake is traditionally made on Mother's Day?
8. Which film has a computer called Mother?
9. In the TV series 'Bewitched', what is the name of Tabitha's mother?
10. Which animal has the longest gestation period?
11. Melanie Griffiths' mother featured in Hitchcock's 'The Birds'. What was her name?
12. Name the Beatles song with this phrase: 'Mother Mary comes to me'?
13. What was the mother's name in the TV series 'The Flintstones'?
14. Which band recorded the hit song "Sylvia's Mother" in 1972?
15. Name the musical that is based on the songs of ABBA.

Art for Relaxation





Modern mothers average 2 children in their lifetime. In the 1950s, the average was 3.5 children and in 1700s, 7 to 10 children!

500 years ago, Mother Shipton, who was a prophet in Britain, predicted that another Queen Elizabeth would sit on England's throne (QE II).

Roseanne Conner in the TV show *Roseanne* was the anti-hero mother: she was overweight, underpaid, and could not control her children.

TV shows that introduced professional mothers (super-mums) in the 80s and 90s were:

*The Cosby Show* (Clair Huxtable),

*Who's the Boss* (Angela Bower)

*Murphy Brown* (Murphy Brown).

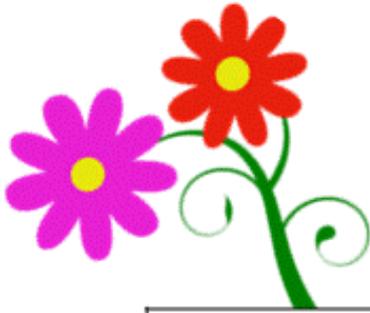
There are around 2 billion mothers in the world!

In most of the languages worldwide, the word for "mother" begins with the letter M. It appears some things are almost universal.

Cleopatra Selene's mother was Cleopatra, Queen of Egypt and Mark Antony. She also became a queen when she married King Juba of Numidia (today's Algeria).

Mother's Day is the second most popular day to buy flowers in many countries; the first being Valentine's Day.

The carnation is the flower most often associated with Mother's Day.



# Mother's Day

UK Mother's Day, Sunday 14<sup>th</sup> March



APPRECIATION  
BEAUTIFUL  
BREAKFAST  
CANDY  
CHARMING  
COMFORT  
DEVOTED  
FLOWERS  
FORGIVING  
GIFTS

GUIDANCE  
HUGS  
JEWELRY  
JOY  
KISSES  
LAUGHTER  
LOVE  
MATERNAL  
MOM  
MOTHER

NURTURE  
PERFUME  
PROTECTIVE  
SHARE  
TELEPHONE  
TENDER  
THE BEST  
WARM  
WISE



Can you spot 8 differences in these pictures?



# Word Ladder #3

Love - Care

**Instructions:** In word ladders, you change one word into another. At each step along the way, change just one letter to make a new word. Clues are given at each step!

<b>Answers</b>	<b>Hint</b>
LOVE	Extreme fondness
— — — —	Happening now
— — — —	Place for bees
— — — —	Try not to be found
— — — —	Ocean motion
— — — —	Measure the duration of
— — — —	Not wild
— — — —	Celebrity status
— — — —	Ticket price
CARE	Close attention

## Word Ladder #3 – Answers

Love - Care

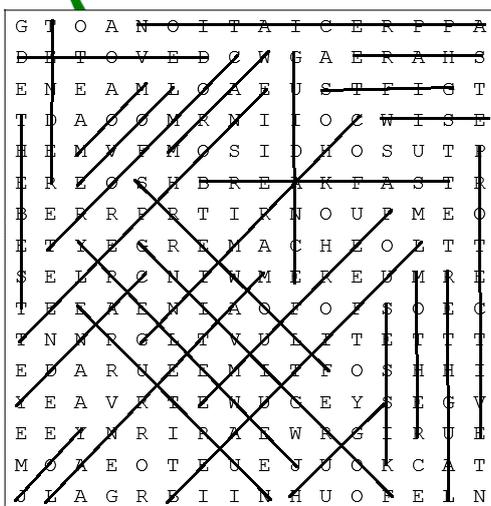
How did you do? Answers provided below.

Answers	Hint
LOVE	Extreme fondness
LIVE	Happening now
HIVE	Place for bees
HIDE	Try not to be found
TIDE	Ocean motion
TIME	Measure the duration of
TAME	Not wild
FAME	Celebrity status
FARE	Ticket price
CARE	Close attention

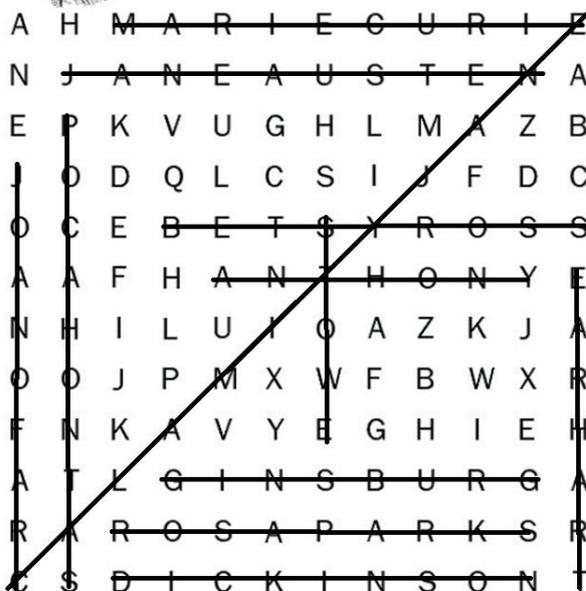
**Mother's Day Quiz Answers:** 1. Mother Earth 2. Old Mother Hubbard 3. Debbie Reynolds 4. Mother Superior 5. Maria Von Trapp (The Sound of Music) 6. Gin 7. Angel Cake or Simnel Cake 8. Alien 9. Samantha 10. The elephant with 22 months gestation 11. Tippi Hedren 12. Let It Be 13. Wilma 14. Dr Hook 15. Mamma Mia



### Mother's Day



### Famous Women in the Millennium



### Famous Women Quiz

**Answers:** 1 - Cleopatra 2 - Coco Chanel 3 - Ann Boleyn 4 - Agatha Christie 5 - Princess Caroline and Princess Stephanie 6 - Julie Andrews 7 - Respect Yourself - I say a little Prayer 8 - Kate Middleton 9 - Radium 10 - Benazir Bhutto 11 - Oprah Winfrey 12 - Charlotte Bronte 13 - Madonna 14 - Princess Ann after her Bull Terrier 'Dottie' bit two children in Hyde Park 15 - Grace Kelly 16 - Brigitte Bardot 17 - George Elliot 18 - Carolyn Jones 19 - Mary I, Queen of Scots (by Queen Elizabeth I) 20 - Serena Williams.

