

Google Arts & Culture

Learn Anywhere: Women in Culture



In association with



[NASA, Mathematician Annie Easley, 1955, National Women's History Museum](#)

How to use this lesson plan

This plan takes you on an exciting journey with plenty of links through to amazing online content so no need to print. This lesson plan is suitable for anyone but we recommend it for ages 11 to 14. It's a lot of fun to go on this journey with parents, teachers or your friends, but it is designed so you can explore independently at your own pace. There are different types of questions to answer: can you discover, explore and invent? We think so.

Check in with your parents or teacher if you need to, but you'll need a tablet, computer or smartphone. You can do this *Learn Anywhere* lesson on almost any device as long as you can get online and use a web browser.

There are 3 Chapters:

Chapter 1 - Women in Science 45 minutes

Chapter 2 - Women in the Arts 45 minutes

Chapter 3 - Extra Discovery 45 minutes

You'll see some helpful signs on the way:



Useful information to guide you through the lesson.



Things you'll need to watch, read, learn and make things with during the lesson.



Digital activity time. Take quizzes and explore.



Estimated time to do a section of this lesson.



Explore online content. Discover videos, stories, or go and look at and zoom around pictures.



Activity time. This is where you get to design, make or write something of your own.



Headphones to listen to videos and audio.



Things you'll need

Things that will help you during this *Learn Anywhere* lesson.



Scrap Paper



Scissors



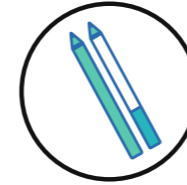
Brush and Paint



Notepad



Tablet or Computer



Pens and Pencils

Welcome to *Learn Anywhere: Women in Culture*

In this *Learn Anywhere* lesson, you are going to learn all about how women have shaped the worlds of science, art, politics and more. You'll go on an adventure through history, learn about women who have changed the world and made it what it is today. Get ready to investigate...

What will you do?

1. Go on an adventure to discover women inventors
2. Hunt for facts and stories women scientists
3. Explore women's influence on the arts
4. Discover what it was like to be the first women elected to the US Congress
5. Celebrate women's success in sport



U.S. Information Agency, Women Marching in Suffragette Parade, Washington, DC/ National Archives and Records Administration, 1913, National Women's History Museum

What will you learn?

1. Discover how women have influenced science, art, fashion, politics and sport
2. Explore how pioneering women made their way in art, fashion, politics and sport
3. Understand how women can exercise influence in worlds that are male-dominated
4. Practice writing
5. Practice art and design

After studying this lesson, you will be able to:

1. Describe women's historical influence on science and technology
2. Understand the obstacles women faced in science and technology
3. Understand how women express themselves and their views through art and fashion
4. Understand problem-solving
5. Create a self-portrait
6. Write about your own mission

Vocabulary: algorithm, art, astronomy, computer, design, fashion, gymnastics, mathematics, NASA, Nobel Prize, Olympic Games, paint, photography, science, space, sport, street art, suffrage, suffragette, suffragist, technology.

There's one more thing to know before you go on your lesson. Google Arts & Culture pictures are big. So big that you can zoom in. Explore. Sometimes right down to a letter on a placard.

So you just need to click on a link, then on the Magnifying Glass symbol and zoom in with the Zoom Slider. Drag the white box around and you can explore the picture. You'll find out for yourself. Here's an example of a Google Arts & Culture picture and the zoom slider.

The diagram illustrates the process of zooming in on a Google Arts & Culture image. It consists of three main parts:

- 1. Click on the magnifying glass:** A screenshot of the Google Arts & Culture interface shows a large painting of a landscape with a tree and a white box highlighting a specific area. A magnifying glass icon is located in the bottom right corner of the image area.
- 2. Use the slider to zoom in:** A vertical zoom slider interface is shown, featuring a white box that can be dragged to different parts of the image. Below the slider is a hand icon with a double-headed arrow, indicating the zooming action.
- 3. Explore art works in detail:** A large, detailed view of the artwork 'The Harvesters' is shown, allowing for close-up exploration of the scene.

Zoom Slider

The Harvesters
Pieter Bruegel the Elder, 1565

THE MET

**3. Explore art works in detail.
Find hidden stories.**



Ted Thai, Fields Museum, 1991, Life Photo Collection

Chapter 1



What's this chapter about?
Women in Science



What will I do?
Learn about women scientists who
changed the world
Discover the women who changed
NASA
Imagine a problem you would like to
solve with technology



How long will this chapter take?
45 minutes



JSC, STS-47 MS Jemison works in the Spacelab Japan (SLJ) module aboard OV-105, 1992, NASA

Women have literally changed the world in which we live.

Wifi? Invented by a woman ([Hedy Lamarr](#), who also happened to be a movie star).

Dishwashers? Invented by a woman ([Josephine Cochrane](#)).

Computer algorithms? Invented by a woman ([Ada Lovelace](#)).

There are thousands more examples. Yet we don't hear as much about these brilliant women.

Society as a whole improves when diverse teams tackle technological and scientific problems. Yet women are underrepresented in various fields. This has a historical basis, as women's formal educational opportunities used to limit access to science and technology. Many women who were actually able to acquire formal education were subsequently denied full-time employment in science. Generations of women struggled to achieve success in what were viewed as male domains. Yet women persisted and have made a huge difference to how we live our lives today.



Click [here](#) to find out more about the history of women in science, engineering and technology.



Click [here](#) to find out about women who achieved great success in astronomy and space.



Let's fill in the gaps. Click [here](#) to read more about 10 women scientists who changed the world.



[Lise Meitner at the Lindau Meeting, 1962, Lindau Nobel Laureate Meetings](#)



Finally let's meet the 15 gamechangers at NASA. Click [here](#) to read more.



Questions for Chapter 1

Let's finish the chapter with some questions. When you **Discover**, you are comprehending and remembering. When you **Explore**, you are really able to understand it and think it through. When you **Invent**, you are able to comprehend, understand, remember, analyse and do something cool with your new knowledge.

Discover:

Who invented the computer algorithm?

Explore:

Why is it important that we understand women's contribution to science?

Invent:

What problem would you solve with science and technology? Write 200 words or so explaining the problem and a potential solution.





Stephanie Rond, Precocious, 2014, Women's Forum Street Art Project

Chapter 2



What's this chapter about?
Women in the Arts



What will I do?
Discover how women have shaped the arts
Learn about how art and politics can mix
Paint a self-portrait (or take a selfie)



How long will this chapter take?
45 minutes



Gillian Wearing (photo by Ben Smart), Statue of Millicent Fawcett, 2018, Mayor of London

Can you name five women artists?

If so, congratulations!

There's no doubt that women have shaped the arts, much as they have shaped the worlds of science and technology.

The photo is of a statue by Gillian Wearing CBE, RA, an English artist, who won the most prestigious arts competition, the Turner Prize, in 1997. She created the statue pictured in 2018 and it stands in London's Parliament Square. It depicts Millicent Fawcett, a suffragist, a campaigner for votes for women in the early 20th century. Art meets politics.

Perhaps it is easier to name five women fashion designers? Katherine Hamnett also mixes art and politics, with her famous slogan T-shirts. And the famous designer, Coco Chanel, liberated women from corsets in the post World War 1 era, making it fashionable and feminine to be sporty casual. It's amazing how much easier it is to move (and think) if you're not wearing highly constricting clothes...



Click [here](#) to find out more about Coco Chanel's innovative approach.

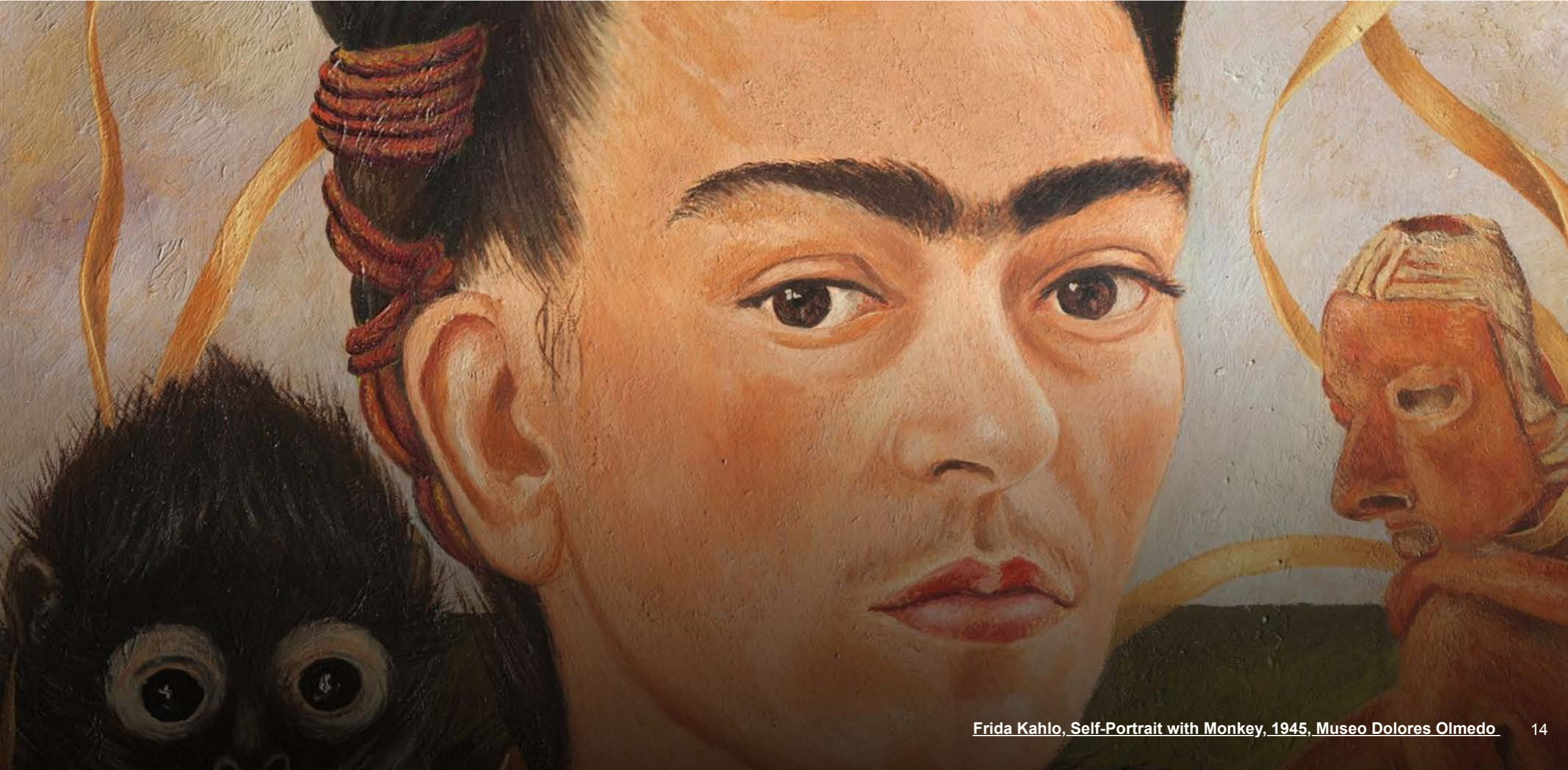


Click [here](#) to find out about Mary Quant, who similarly revolutionised women's fashion in the 1960s.





Now let's see how women artists see themselves. Click [here](#) to discover 10 self-portraits by women artists.



Frida Kahlo, *Self-Portrait with Monkey*, 1945, Museo Dolores Olmedo



And now let's look at how women see the world. Click [here](#) to discover how early women photographers took some of the most influential images of all time.



Berenice Abbott, Pike and Henry Streets, 1936, Museum of the City of New York

Questions for Chapter 2

Time for some questions. Here's a reminder of how it works. When you **Discover**, you are comprehending and remembering. When you **Explore**, you are really able to understand it and think it through. When you **Invent**, you are able to comprehend, understand, remember, analyse and do something cool with your new knowledge.

Discover:

Where was Coco Chanel based for most of her life?

Explore:

What themes does Frida Kahlo's art celebrate?

Invent:

How do you see yourself in the world - draw, paint or photograph a self-portrait and think about how you portray yourself.



[Amy Sberald, First Lady Michelle Obama, 2018, Smithsonian's National Portrait Gallery](#)



Chapter 3



What's this chapter about?
Extra Discovery



What will I do?
Investigate women's role in politics
Celebrate women's success at the
Olympic Games
Imagine you have been elected to office
and write about your mission



How long will this chapter take?
45 minutes



While women may not have had the vote in all countries until relatively recently, they have certainly played their part in politics. Click [here](#) to discover the struggles of the first women elected to the US Congress and [here](#) to explore the Votes for Women movement in the UK.



[Maureen Keating, U.S. Representatives including Nita Lowey, Pat Schroeder, Patsy Mink, Jolene Unsoeld, Eleanor Holmes Norton and Ileana Ros-Lehtinen walking by the U.S. Capitol on their way to the Senate / Library of Congress, 1991, National Women's History Museum](#)



Finally, we take a moment to celebrate the achievements of women in sport by discovering women champions at the The Olympic Games. Click [here](#) to find out more.



Questions for Chapter 3

Time for some questions. Here's a reminder of how it works. When you **Discover**, you are comprehending and remembering. When you **Explore**, you are really able to understand it and think it through. When you **Invent**, you are able to comprehend, understand, remember, analyse and do something cool with your new knowledge.

Discover:

Who was Millicent Fawcett?

Explore:

Who is your favourite Olympic female champion and why?

Invent:

Imagine you were the first woman elected to Congress (or your equivalent in your country). How would it feel? Write a short 200 word description of why you wanted to be elected, and your mission while in office.



Barbara Carrasco, Dolores Huerta, 1999, Smithsonian's National Portrait Gallery



Congratulations. You have proven yourself an inventive student of Women in Culture.

Now it's time to continue your journey [here](#)

Answers to all the questions

Chapter 1

Discover: Who invented the computer algorithm?

Answer: Ada Lovelace

Explore: Why is it important that we understand women's contribution to science?

Answers can vary but should refer to the fact that diverse voices lead to better results, that women have often been excluded from science and the need to inspire girls to be scientists.

Invent: What problem would you solve with science and technology? Write 200 words or so explaining the problem and a potential solution.

Answers will vary but any form of analytical approach to a problem is fine.

Chapter 2

Discover: Where was Coco Chanel based for most of her life?

Answer: Paris, France

Explore: What themes does Frida Kahlo's art celebrate?

Answer: Identity, postcolonialism, gender, class, and race in Mexican society.

Invent: How do you see yourself in the world - draw, paint or photograph a self-portrait and think about how you portray yourself.

Answers will vary but should convey thought and interpretation rather than an ordinary 'selfie'.

Chapter 3

Discover: Who was Millicent Fawcett?

Answer: An English political leader, activist, and writer. Campaigner for women's suffrage via legislative change. The first woman to be honoured with a statue in Parliament Square in London.

Explore: Who is your favourite Olympic female champion and why?

Answers can vary but should give reasons for choosing one person.

Invent: Imagine you were the first woman elected to Congress (or your equivalent in your country). How would it feel? Write a short 200 word description of why you wanted to be elected, and your mission while in office.

Answers will vary but should give a sense of the achievement, and be personal in writing about a mission.