

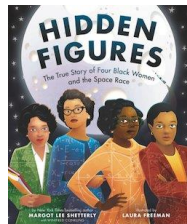
Woman's History Month 2022

***Hidden Figures: The True Story of Four Black Women and the Space Race***

Written by Margot Lee Shetterly

Illustrated by Laura Freeman

HarperCollins, 2018



**Book Synopsis:** This perfectly illustrated informational text explores the contributions made by four African American mathematicians to the United States' space program. Overcoming the callous sexism and racism of the Jim Crow Era, “computers” Katherine Johnson, Dorothy Vaughan, Mary Jackson, and Christine Darden were able to use their talents to advance science and secure America’s legacy in the space race.

Visual learners will delight in the details Freeman includes in her illustrations. Facility blueprints, mathematical equations, historical references, and space symbols are integrated throughout, including the women’s clothing and accessories. Back material includes “Meet the Computers” Biographies, Timeline, Glossary and Author’s notes.

**Lesson I**  
**A Chain of Events**



**Introduction:** When John Glenn orbited the Earth in 1962 he was instantly an American hero. This activity introduces students to some other interesting events that took place that year that would influence not only science and technology, but also civil rights, culture, government, and sports.

**Grade Level:** 3-5

**Time Allocation:** 20-25 minutes

**Objectives:**

- The student will participate in an activity dealing with the sequencing of historical events.
- The student will make connections between a series of historical events.

**Materials:**

- A copy of *Hidden Figures: The True Story of Four Black Women and the Space Race* by Margot Lee Shetterly
- Timeline strips run off and cut into individual sections
- Stapler, tape, or glue stick

**Procedure:**

1. Prepare the materials prior to class. If this activity is repeated several times, running the timeline strips off on different colored paper makes for a visually interesting product.
2. Introduce the lesson showing the students the cover of *Hidden Figures: The True Story of Four Black Women and the Space*. Explain that this book is about women “computers” who helped NASA make the space program successful. If time allows, read the book to the students. This takes between eight and ten minutes.
3. Tell the students that they are going to participate in an activity that introduces interesting events that occurred in the year 1962. Explain that this is the year that John Glenn, with the help of Katherine Johnson, orbited the Earth.
4. Display the visual and read its contents to the class.
5. Tell the class that they will be making a paper chain. Each student will receive a link to the chain. Each link will contain specific information. Explain that the first line represents the specific date, the second line the event, and the third a basic category for this event.
6. Explain to the students that the event on their chain link strip took place in the past and that they may not have learned about it. Encourage them to remember what their event was and research it in a reference book or online.
7. Distribute the precut strips of paper to the students.
8. Instruct the students to read the content, with a special focus on the date, on their strip. They are then to come up to the front room with the rest of the students and arrange themselves in chronological order line, from right to left, in 90 seconds or less. (This may be a little chaotic at first, but it is fun.) Once in order, instruct the first student to read the contents on the strip to the class. This is to continue until all the students have had a turn.
9. Assemble the timeline chain by pasting, stapling, or taping the ends of the first strip together. Then loop the second strip through the first and secure those ends together. Continue until a chain of events is created.
10. Ask the students to compare and contrast this chain link timeline to a more traditional timeline drawn on paper. Use the timeline in the back of the book as an example. Discuss how a chain link timeline represents historical events.
11. Display the chain link timelines in the classroom or the hall.

*Woman's History Month 2022*

**Enrichment Activities:**

- Challenge students to research the events of a specific year or historical event and create a timeline chain of their own.
- Instruct students to select one on the timeline strips and conduct detailed research based on its topic. Their research should cover the fundamental questions; Who? What? Where? When? Why? & How?

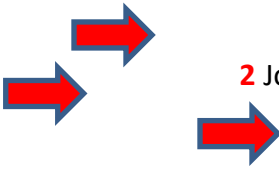
Visual-

### 1962 Chain Link Timeline Strips



**Intoduction:** The year 1962 was an important one for the Untied States' space program. John Glenn became the first American to orbit the Earth. He completed three obits aboard the space craft Friendship 7. While this was an exciting event, other interesting things occurred this year in civil rights, culture, governement, sports, and technology.

Information on each strip:



**1 February 20, 1962**  
**2** John Glenn obits the Earth three times while aboard Friendship 7  
**3** *Technology*

1. The date of the event is on the first line.
2. Line two is a brief description of the event.
3. This line describes a broad category the event could be placed in.

### Create a class Chain Link Timeline

- **Receive a strip**
- **Read the information on it to yourself**
- **Place yourself next to the person who has the date nearest to yours**
- **When the timeline is in chronological order, takes turns and read the information on your card to the class**
- **Once the strips are in order, attach the links together**

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Timeline Strips-

<p><b>January 1, 1962</b> <i>A Wrinkle in Time</i> is published <i>Culture</i></p>
<p><b>January 4, 1962</b> New York City introduces a subway train that operates without a crew <i>Technology</i></p>
<p><b>January 23, 1962</b> Jackie Robinson is first African American elected to the Baseball Hall of Fame <i>Sports</i></p>
<p><b>January 26, 1962</b> Ranger 3 Space Probe launched to study the Moon (It misses by 22,000 miles) <i>Technology</i></p>
<p><b>March 2, 1962</b> Wilt Chamberlain scores 100 points in a single NBA basketball game <i>Sports</i></p>
<p><b>March 21, 1962</b> First Taco Bell opens in Downey, California <i>Culture</i></p>
<p><b>April 21, 1962</b> The Space Needle is opened at the World's Fair in Seattle, Washington <i>Culture</i></p>
<p><b>April 26, 1962</b> The Ranger 4 Spacecraft crashes into the Moon <i>Technology</i></p>
<p><b>May 24, 1962</b> Scott Carpenter is the second American to orbit the Earth aboard Aurora 7 <i>Technology</i></p>

Woman's History Month 2022

**July 2, 1962**

First Wal-Mart opens in Arkansas

*Business*

**July 10, 1962**

Martin Luther King, Jr. is convicted for leading demonstration in Georgia

*Civil Rights*

**July 11, 1962**

First transatlantic satellite television transmission

*Technology*

**July 22, 1962**

The Mariner 1 Spacecraft flies erratically after launch and has to be destroyed

*Technology*

**August 10, 1962**

Spiderman appears for the first time in Marvel Comic's *Amazing Fantasy* #15

*Culture*

**August 27, 1962**

NASA launches the Mariner 2 Space Probe

*Technology*

**September 23, 1962**

The animated series "The Jetsons" premieres on ABC

*Culture*

**September 26, 1962**

"The Beverly Hillbillies" premieres on CBS

*Culture*

**October 1, 1962**

The first African American student, James Meredith, registers at the University of Mississippi.  
(He is escorted by Federal Marshals)

*Civil Rights*

*Woman's History Month 2022*

**October 14, 1962**

The Cuban Missile Crisis begins, threatening nuclear war

*Government*

**October 16, 1962**

New York Yankees wins the World Series

*Sports*

**October 28, 1962**

The Cuban Missile Crisis ends

*Government*

**November 3, 1962**

The term “personal computer” appears for the first time in *The New York Times*

*Technology*

**December 7, 1962**

The Atlas Supercomputer is dedicated at the University of Manchester in England (Designed for multiprogramming, it will be in use for the next decade)

*Technology*

**December 14, 1962**

The Mariner 2 Spacecraft flies by Venus and successfully transmits data

*Technology*