

# hidden figures movie questions and answers

The film *Hidden Figures* shines a brilliant light on the often-overlooked contributions of African American women mathematicians at NASA during the Space Race. Based on Margot Lee Shetterly's book of the same name, the movie delves into the personal and professional journeys of Katherine Johnson, Dorothy Vaughan, and Mary Jackson. This article explores common questions and answers about *Hidden Figures*, aiming to provide a comprehensive understanding of its historical context, key characters, and lasting impact. We'll delve into the factual basis of the film, address queries about the characters' real-life counterparts, and examine the significant themes presented, offering a wealth of information for anyone seeking deeper knowledge of these remarkable women and their groundbreaking work. Prepare to uncover the answers to your most pressing *Hidden Figures* movie questions and gain a richer appreciation for this inspiring true story.

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## Understanding the Historical Context of *Hidden Figures*

The historical backdrop of *Hidden Figures* is crucial to understanding the challenges and triumphs depicted. The film is set during the Cold War and the intense competition between the United States and the Soviet Union for space superiority. This era, known as the Space Race, spurred unprecedented innovation and scientific advancement in the American space program.

NASA, then known as the National Advisory Committee for Aeronautics (NACA), relied heavily on the mathematical prowess of its "human computers." These were primarily women, and at a time of pervasive racial segregation in the United States, many of these gifted mathematicians were African American. Their contributions were vital to calculating the trajectories, fuel needs, and safety parameters for some of America's most ambitious space missions, including those of Project Mercury.

and the Apollo program.

The film vividly portrays the reality of segregation in the early 1960s. The West Area Computing unit, where the black female mathematicians worked, was a segregated facility. Even seemingly simple necessities like restrooms and dining areas were separated based on race. This racial divide, a painful but undeniable aspect of American history, significantly impacted the daily lives and professional experiences of Katherine Johnson, Dorothy Vaughan, and Mary Jackson, as well as their colleagues.

Furthermore, the film touches upon the societal expectations and limitations placed upon women during this period. While scientific fields were predominantly male-dominated, the urgency of the Space Race created opportunities for women to contribute their intellectual talents. However, even within NASA, African American women faced a double layer of discrimination: racial prejudice and gender bias. Their journey to be recognized and integrated into the broader scientific community was a testament to their resilience and brilliance.

## **Key Characters and Their Real-Life Counterparts in Hidden Figures**

Hidden Figures centers on three extraordinary African American women whose mathematical genius was instrumental to NASA's early successes. Understanding their individual stories and how they are portrayed in the film is key to appreciating the movie's impact.

### **Katherine Johnson: The Human Computer Who Calculated Orbits**

Katherine Johnson, portrayed by Taraji P. Henson, was a brilliant mathematician whose accuracy was legendary. Her role in calculating the trajectory for Alan Shepard's Freedom 7 mission, America's first human spaceflight, is a pivotal moment in the film. Johnson's most famous calculation was for John Glenn's Friendship 7 mission, the first American orbital flight. Glenn famously requested that Johnson personally verify the computer's calculations, stating, "If she says they're good, then I'm ready to go." This trust in her abilities underscores her exceptional talent and the respect she earned, despite the prevailing segregation.

In real life, Katherine Johnson continued her work at NASA for many years, contributing to the Apollo missions, including the moon landing, and later to the Space Shuttle program. Her dedication to precision and her ability to identify and correct errors in early electronic computers made her an invaluable asset. The film accurately captures her intelligence, her quiet determination, and her groundbreaking achievement of breaking racial and gender barriers.

## **Dorothy Vaughan: The Supervisor and Self-Taught Programmer**

Dorothy Vaughan, played by Octavia Spencer, was the supervisor of the West Area Computing unit. Her character in the film highlights her leadership skills and her forward-thinking approach to the evolving technological landscape of computing. As early electronic computers began to replace human computers, Vaughan recognized the shift and proactively learned the FORTRAN programming language.

In reality, Dorothy Vaughan became NASA's first African American supervisor and a skilled programmer. She taught herself and her team FORTRAN, ensuring they remained relevant and indispensable as the agency transitioned to machine computation. Her dedication to her team's professional development and her ability to adapt to technological changes were crucial for their survival and continued success within NASA. The film effectively portrays her strength, her commitment to her colleagues, and her foresight.

## **Mary Jackson: The Engineer Who Broke Barriers**

Mary Jackson, brought to life by Janelle Monáe, was a mathematician who aspired to become an engineer. The film dramatizes her fight to attend an engineering program at an all-white high school, a significant hurdle she had to overcome to achieve her career goals. Her petition to attend night classes required special permission from the court, a legal battle that symbolized the broader struggle for civil rights and equal opportunity.

Mary Jackson successfully became NASA's first African American female engineer. She worked on various projects throughout her career and later transitioned into human capital development, focusing on helping women and minorities advance in scientific and engineering careers. The film accurately depicts her ambition, her intelligence, and her courage in challenging discriminatory practices to pursue her professional aspirations.

## **Exploring the Major Themes and Messages in Hidden Figures**

Hidden Figures is more than just a historical recounting; it's a powerful exploration of universal themes that resonate deeply with audiences. The film masterfully weaves together personal struggles with grand scientific achievements, offering profound insights.

### **The Power of Resilience and Perseverance**

One of the most prominent themes in Hidden Figures is the incredible resilience and perseverance of Katherine Johnson, Dorothy Vaughan, and Mary Jackson. They navigated a deeply segregated

society and a demanding professional environment where they constantly had to prove their worth. Despite facing blatant discrimination, microaggressions, and systemic barriers, they did not give up. Their unwavering commitment to their work, their pursuit of knowledge, and their refusal to be defined by the limitations imposed upon them by society are truly inspiring.

The film shows them enduring long commutes to segregated facilities, facing disrespectful treatment from some colleagues, and having to overcome legal and educational obstacles. Yet, they consistently delivered exceptional work, solved complex problems, and paved the way for future generations. Their quiet determination and inner strength are central to the movie's compelling narrative.

## **Breaking Barriers: Racial and Gender Equality**

Hidden Figures serves as a potent reminder of the fight for racial and gender equality in America. The film explicitly details the Jim Crow laws and the pervasive segregation that defined the era. The separate bathrooms, water fountains, and dining areas for black employees were stark visual representations of the injustice they faced daily. The film highlights how these women, despite their extraordinary intellect and vital contributions, were treated as second-class citizens.

Beyond racial discrimination, the film also touches upon the gender bias prevalent in the scientific and engineering fields. While women were crucial to the early space program, they were often relegated to supporting roles, and their advancement was frequently hindered. Mary Jackson's journey to become an engineer, requiring her to fight for access to education, exemplifies the challenges women faced in breaking into traditionally male-dominated professions. The film celebrates their ability to shatter these glass ceilings.

## **The Importance of Collaboration and Mentorship**

While the film focuses on the individual brilliance of its protagonists, it also underscores the importance of collaboration and mutual support. The women in the West Area Computing unit relied on each other for encouragement, shared knowledge, and emotional support. Dorothy Vaughan's leadership in mentoring her team, particularly in adopting new technologies, is a testament to the power of effective mentorship.

The scene where Dorothy Vaughan teaches her team FORTRAN highlights the proactive approach to skill development and collective advancement. This sense of community and shared purpose allowed them to not only survive but thrive in a challenging environment. The film illustrates that even in the face of adversity, a supportive network can be a powerful catalyst for success.

## **The Unsung Heroes of the Space Race**

Ultimately, Hidden Figures brings to light the often-unsung heroes of the Space Race. For decades, the contributions of these brilliant African American women mathematicians were largely unknown

to the public. The film corrects this historical omission, placing them at the forefront of crucial scientific achievements. It emphasizes that behind every successful space mission, there were countless hours of complex calculations performed by dedicated individuals whose names were not prominently featured in the headlines.

The movie's title itself, *Hidden Figures*, speaks to this theme of overlooked contributions. It argues for a more inclusive and comprehensive understanding of history, one that acknowledges the diverse individuals who played vital roles in shaping our nation's past and technological advancements. The film is a celebration of their intelligence, hard work, and profound impact on American history.

## **Common Questions and Answers About Hidden Figures**

As *Hidden Figures* gained widespread popularity, many viewers and history enthusiasts have sought to understand the nuances of the story and its real-world accuracy. Here, we address some of the most frequently asked questions about the film and its subjects.

### **Was Hidden Figures a true story?**

Yes, *Hidden Figures* is based on a true story. The film is an adaptation of Margot Lee Shetterly's non-fiction book of the same name, which chronicles the lives and careers of Katherine Johnson, Dorothy Vaughan, and Mary Jackson, three African American women who worked as mathematicians at NASA.

### **Were Katherine Johnson, Dorothy Vaughan, and Mary Jackson real people?**

Absolutely. Katherine Johnson, Dorothy Vaughan, and Mary Jackson were real individuals who made significant contributions to NASA's early space missions. Their stories, while dramatized for the film, are rooted in historical fact.

### **Did Katherine Johnson really calculate trajectories for NASA?**

Yes, Katherine Johnson was a highly respected mathematician whose calculations were crucial for the success of numerous space missions. She calculated the trajectories for Alan Shepard's first mission, John Glenn's first orbit, and for all Apollo missions to the Moon, including the Apollo 11 landing.

### **Did Dorothy Vaughan become NASA's first African American supervisor?**

Yes, Dorothy Vaughan was indeed promoted to supervisor of the West Area Computing unit. She was a pioneering figure in her own right, leading her team and adapting to the advent of electronic

computers.

## **Did Mary Jackson have to get court permission to attend classes?**

The film accurately portrays that Mary Jackson had to petition the city of Hampton, Virginia, for special permission to attend engineering classes at the all-white Hampton High School. This was a legal hurdle she had to overcome to advance her career.

## **Were the segregated facilities at NASA accurate?**

Yes, the film accurately depicts the reality of racial segregation in the United States during the 1960s, which extended to NASA's facilities. The West Area Computing unit, where the black female mathematicians worked, was a segregated section of the Langley Memorial Aeronautical Laboratory.

## **How accurate is the timeline of events in Hidden Figures?**

While the film takes some creative liberties to condense events and create a more compelling narrative, the overall timeline and the core historical events are largely accurate. For instance, the film merges some timelines and situations for dramatic effect, but the central struggles and achievements of the women are faithfully represented.

## **What happened to Katherine Johnson, Dorothy Vaughan, and Mary Jackson after the events in the movie?**

- Katherine Johnson continued her career at NASA, working on missions like Apollo 11 and the Space Shuttle program. She retired in 1986 and lived to be over 100 years old, receiving numerous accolades for her contributions.
- Dorothy Vaughan retired from NASA in 1971. She continued to be involved in community programs and remained a respected figure in the field of mathematics and computing.
- Mary Jackson became NASA's first African American female engineer and later worked in human capital and equal opportunity programs. She retired from NASA in 1979 and passed away in 2005.

## **The Impact and Legacy of Hidden Figures**

Hidden Figures has had a profound impact on public awareness and historical understanding. The film's success brought the extraordinary story of these women to a global audience, sparking

conversations about STEM education, diversity in science, and the importance of recognizing all contributors to historical achievements.

The movie's critical and commercial success highlighted a significant gap in the historical narrative of the Space Race. By focusing on the brilliance and perseverance of Katherine Johnson, Dorothy Vaughan, and Mary Jackson, the film helped to correct the record and ensure that their vital work would no longer be overlooked. This increased visibility has inspired many, particularly young women and people of color, to pursue careers in science, technology, engineering, and mathematics.

The film has also served as a powerful educational tool, prompting discussions in schools and communities about civil rights, segregation, and the ongoing fight for equality. It underscores the fact that talent and intellect are not bound by race or gender and that diverse perspectives are essential for innovation and progress.

Furthermore, the legacy of Hidden Figures extends to the recognition and honors bestowed upon the women themselves. Following the film's release, they received numerous awards and accolades, including the Presidential Medal of Freedom. Their stories are now more widely taught, ensuring that future generations will learn about their courage, their intellect, and their indelible mark on American history and space exploration.

## **Conclusion: The Enduring Significance of Hidden Figures**

Hidden Figures is a cinematic triumph that not only entertains but also educates and inspires. By illuminating the crucial contributions of Katherine Johnson, Dorothy Vaughan, and Mary Jackson, the film has cemented their rightful place in history. The movie's exploration of themes like resilience, the fight for equality, and the importance of recognizing unsung heroes continues to resonate deeply. The answers to common Hidden Figures movie questions reveal a narrative grounded in factual accounts of immense bravery and groundbreaking scientific achievement. The enduring legacy of these women, brought to life through this powerful film, serves as a vital reminder of the power of perseverance and the importance of inclusivity in all fields of human endeavor, especially in the pursuit of scientific advancement.

## **Frequently Asked Questions**

### **What was the central challenge faced by Katherine Johnson, Dorothy Vaughan, and Mary Jackson in the movie 'Hidden Figures'?**

The central challenge they faced was overcoming racial and gender discrimination in the 1960s to contribute their brilliant mathematical and engineering skills to NASA's space program, specifically the Mercury missions.

## **Who were the main historical figures portrayed in 'Hidden Figures' and what were their specific roles?**

The movie primarily focuses on Katherine Johnson (mathematician who calculated trajectories), Dorothy Vaughan (supervisor of the West Area Computing unit and later a computer programmer), and Mary Jackson (engineer who became NASA's first black female engineer).

## **What key scientific or engineering concept did Katherine Johnson's work contribute to in the movie?**

Katherine Johnson's pivotal contribution was calculating the complex orbital mechanics and trajectories for astronaut John Glenn's Friendship 7 mission, ensuring his safe return to Earth. Her manual calculations were crucial when the new IBM computer experienced errors.

## **What technological advancement did Dorothy Vaughan embrace and help her team transition to in the film?**

Dorothy Vaughan foresaw the importance of electronic computers and taught herself and her team the FORTRAN programming language, preparing them for the transition from human 'computers' (calculators) to machine computation.

## **What significant barrier did Mary Jackson have to overcome to become an engineer?**

Mary Jackson had to petition the court to attend segregated engineering classes at an all-white high school, demonstrating her determination and intellectual capability to break down racial barriers and become NASA's first black female engineer.

## **Beyond the technical aspects, what broader themes does 'Hidden Figures' explore?**

Beyond the scientific achievements, 'Hidden Figures' explores themes of racial segregation, gender inequality, perseverance, the importance of mentorship, the power of collaboration, and the fight for equal opportunity and recognition for often-overlooked individuals.

## **Additional Resources**

Here are 9 book titles related to the themes and questions explored in the Hidden Figures movie, with descriptions:

1. Hidden Figures: The American Dream and the Untold Story of the Black Women Mathematicians Who Helped Win the Space Race

This is the foundational book that inspired the film. It delves into the lives of Katherine Johnson, Dorothy Vaughan, and Mary Jackson, highlighting their crucial contributions as mathematicians at NASA during the Space Race. The book offers a detailed look at the societal barriers they faced as Black women in mid-20th century America and their perseverance in achieving groundbreaking

scientific work. It provides rich context for understanding the historical and social backdrop of the movie.

## 2. The Space Race: A Historical Exploration of the Competition Between the United States and the Soviet Union

This book offers a comprehensive overview of the Cold War-era competition that drove the U.S. space program. It explains the political and scientific motivations behind the race to the moon and beyond. Understanding the broader context of the Space Race helps to illuminate the immense pressure and significance of the missions the women of Hidden Figures were instrumental in.

## 3. Women in STEM: A History of Pioneering Female Scientists and Engineers

This title explores the broader landscape of women who have broken barriers and made significant contributions in science, technology, engineering, and mathematics. It places the achievements of the Hidden Figures within a larger historical narrative of women overcoming obstacles in male-dominated fields. The book celebrates diverse voices and showcases the impact of female intellect across various scientific disciplines.

## 4. Segregation and the Civil Rights Movement: A Comprehensive Account

To understand the challenges faced by Katherine, Dorothy, and Mary, a deep dive into the era of racial segregation is essential. This book would detail the Jim Crow laws, systemic discrimination, and the burgeoning Civil Rights Movement. It provides the necessary background to appreciate the resilience and determination of these women who navigated a deeply unjust system while excelling in their careers.

## 5. The History of NASA: From Mercury to the Moon and Beyond

This book would chronicle the evolution of the National Aeronautics and Space Administration, from its inception to its major achievements. It would detail the key programs and technological advancements that defined NASA's early years, including Project Mercury and the Apollo missions. Understanding NASA's structure and mission at the time helps to contextualize the specific roles played by the human computers and engineers featured in Hidden Figures.

## 6. African American Women's History: Trials, Triumphs, and Resilience

This title broadens the scope to explore the multifaceted experiences of Black women throughout American history. It would highlight their struggles against racism and sexism, as well as their achievements and contributions to society. This book allows for a deeper understanding of the intersectional identities and strengths that enabled figures like Johnson, Vaughan, and Jackson to succeed against formidable odds.

## 7. The Mathematics of Spaceflight: Calculating Orbits and Trajectories

For those intrigued by the "how" of the space missions, this book would break down the complex mathematical principles that governed space travel. It would explain concepts like orbital mechanics, calculus, and trajectory analysis, showcasing the essential calculations performed by the women. This provides a tangible appreciation for the intellectual rigor and vital importance of their work.

## 8. Unsung Heroes: Remarkable Individuals Who Shaped History

This book would focus on individuals whose significant contributions have often been overlooked by mainstream historical accounts. It would provide a platform for stories of quiet heroism and profound impact that might otherwise remain unknown. The narrative of the Hidden Figures is a prime example of such an unsung story, and this book would offer similar perspectives from diverse fields.

#### 9. The Power of Education: Overcoming Barriers to Learning and Advancement

This title would explore the transformative role of education in personal and societal progress, particularly for marginalized groups. It would likely feature stories of individuals who pursued knowledge despite systemic disadvantages. The importance of education for the women in Hidden Figures is undeniable, as their academic prowess was their primary tool for entry and advancement in their careers.

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