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SPACE TECH SERIES

Katherine Johnson

The Human Computer

The Woman Who Did the Math for Space

Katherine Johnson was a **mathematician** who worked for NASA. A mathematician is a person who is an expert at math. Katherine was so good at doing math by hand that people called her a "human computer."

In 1961, her math helped send Alan Shepard into space. He was the first American in space. In 1962, an **astronaut** named John Glenn became the first American to **orbit** Earth. That means he flew all the way around it. NASA had a new electronic computer to do the math for his flight. But Glenn asked NASA to "get the girl" to check the computer's numbers by hand. He meant Katherine!

Katherine helped NASA for many years. She even worked on the Apollo mission that landed people on the Moon. She lived to be 101 years old and won the Presidential Medal of Freedom.

SPACE WORDS TO KNOW

- **mathematician:** a person who is an expert at math and solving number problems
- **orbit:** to travel all the way around a planet like Earth
- **astronaut:** a person who is trained to travel and work in space

Part 1 • Reading Comprehension

1. What was Katherine Johnson's job at NASA?

2. Why did people call her a "human computer"?

3. Before his 1962 flight, what did John Glenn want Katherine to do?

4. What big award did Katherine win?

Checking the Flight Numbers

Like Katherine, you will check the math for a space flight. John Glenn's spacecraft went around Earth 3 times. Each trip around Earth took about 90 minutes. There are 60 minutes in 1 hour.

1 How many minutes did it take to go around Earth 3 times? (3×90)

2 Check your answer by adding: $90 + 90 + 90 = ?$

3 How many hours and minutes is 270 minutes? (Hint: 4 hours = 240 minutes.)

Part 3 • Think About It

John Glenn wanted Katherine to check the new computer's math by hand. Why might a person double-check numbers before a dangerous trip?

