



Hispanic Heritage Month

National Hispanic Heritage Month is a great time to celebrate Hispanic and Latinx scientists who changed the world.

To learn more, I talked with my friend [Rocío Sotomayor](#), professor of mathematics in WSU's College of Arts and Sciences. She also serves in the [Office of Equity and Inclusion](#). She told me that, if you love science (or any subject), it's a big deal to see scientists and teachers who share your life experience or culture.

"Representation is a way for students to feel that they belong in the space," Sotomayor said.

Sotomayor grew up in Peru. She told me that sometimes she's the first Spanish-speaking professor her students have ever had.

"Representation helps students see somebody who looks like them and who reached a certain point that they may aspire to get to," she said. "They might be unsure about how to get there...and seeing representation can work both as motivation and guidance."

Sotomayor is a math scientist and teacher. When she first went to college, there were only a few women in her whole math program. Then, in graduate school, she told me there were more women but not many Latino math students.

"I think that the role of teachers is so important in trying to promote looking for diversity and not giving up," she said. "Keep looking and trying to put light on those people. They might be few. But if they are visible, they're going to help other people feel that sense of belonging."

To get started, here are a few famous Hispanic and Latinx scientists—and activities to explore their fields. I hope you have as much fun digging through them as I did putting them together!

Space

Franklin Chang-Díaz was the first Hispanic astronaut. He took seven trips to space between 1986 and 2002. He even left the shuttle for three space walks to help fix the International Space Station. When he was a kid, Chang-Díaz pretended to blast off to space in a cardboard rocket with his cousins and friends.



In 1993 **Ellen Ochoa** became the first Hispanic woman to go to space. She's spent about 1,000 hours in space on four missions. Ochoa was the first Hispanic person and second woman to run NASA's Johnson Space Center. Ochoa took a flute with her on her first trip to space.

- You can watch Dr. Ochoa in this [PBS Kids video](#).
- Ask a grownup to help you make this baking soda and vinegar powered rocket!
- To learn about more incredible astronauts, check out this [NASA collage](#).

Chemistry & Math

The ozone layer is like a shield that surrounds the earth. It blocks out the sun's harmful rays. In the 1970s, **Mario Molina** was the first person to figure out that some chemicals (called CFCs) hurt the ozone layer. It took a long time for people to listen to him. Eventually scientists all over the world worked together to solve the problem. Molina won a Nobel Prize in Chemistry in 1995.

In 1986 **Ruth Gonzalez** earned a Ph.D. in math. She was the first Hispanic woman born in the US to do that. She used math to map rock formations deep underground—without digging!

- To learn more about the ozone layer, check out [Nasa's EO Kids handout](#).
- The math you're probably used to is called the decimal system or base 10. Stretch your brain by doing math in base 20 with [Maya Math](#).
- Cooking is chemistry and math. Ask a grownup to help you [make something delicious with PBS](#).

Biology

Sarah Stewart was a professor and doctor. She earned a Ph.D. in microbiology in 1937. At that time, women weren't allowed to go to medical school at the university where she worked. She took medical classes anyway and was the first woman to earn an M.D. there in 1949. She's best known for studying viruses.

Severo Ochoa was the first Hispanic American to win the Nobel Prize in physiology or medicine. He discovered a protein that builds and breaks down RNA. Along with DNA, RNA helps make the proteins that do nearly all the work in your cells. Understanding RNA eventually made it possible for scientists to make some Covid-19 vaccines.

- Do your own molecular engineering with this RNA-folding game at [Nova RNA VirtualLab](#).
- Turn all your real-life virus experience into XP in [this Covid-19 video game](#).

Botany

Ynés Mexía was the first Mexican American female botanist. She worked hard to protect the environment—especially redwood forests. She became a plant scientist when she was 55 years old. She traveled all over the Americas collecting plants. She discovered 500 new plants!



- Plants release oxygen when they use the sun's energy to make sugar. You can [watch a leaf give off oxygen](#).
- Take a nature walk. Use an app like [iNaturalist](#) or [PlantNet](#) to identify plants you see. You can check with your local public library about borrowing a device.

Look for these Books at Your Library!

- Books about [Latinx and Chicanx in STEM](#) from the Library of Congress
- Books about [Latina Mighty Girls](#) from A Mighty Girl
- Books for [elementary readers](#) and [middle grades readers](#) (including some STEM/STEAM selections), reviewed by Latinxs in Kid Lit



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