TEACHING TOLERANCE
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tolerance.org

Science Star Cards

Prepare one or more sets of cards by printing them on heavy paper (in color, if possible). Separate the cards by cutting the printed pages into quarters. Assemble the cards so that the scientists' photos on the front match their brief biographies on the back. Attach each card front to its back.

Neil deGrasse Tyson
ASTROPHYSICIST

At age nine, Neil deGrasse Tyson, who describes himself as a "science geek," decided that he wanted to study the universe. Now he runs the Hayden Planetarium in New York City and shows other people how fun and exciting science can be. He also had his own TV miniseries called Cosmos: A Spacetime Odyssey.

Tyson was inspired by another astrophysicist named Carl Sagan. When Tyson was in high school, Sagan gave him a tour of Cornell University and hoped Tyson would choose to go there. Tyson chose another college instead, but he never forgot Carl Sagan's kindness.

Stephen Hawking
COSMOLOGIST

Stephen Hawking studies cosmology—all things related to the universe. As a kid, he liked looking at the stars. Hawking wanted to explain big things in a way everyone could understand, so he wrote a book called A Brief History of Time. The book was still kind of hard, so he followed up with two more books that were a little easier.

When he was 21, Hawking was diagnosed with Lou Gehrig's disease. Doctors believed that he might live for only a few more years. Eventually, he used a wheelchair for getting around and a computer to speak and write. But more than 50 years after his disease was discovered, he continues to work, and he hopes to travel to the edge of space one day.

Grace Murray Hopper
INVENTOR, COMPUTER COMPILER

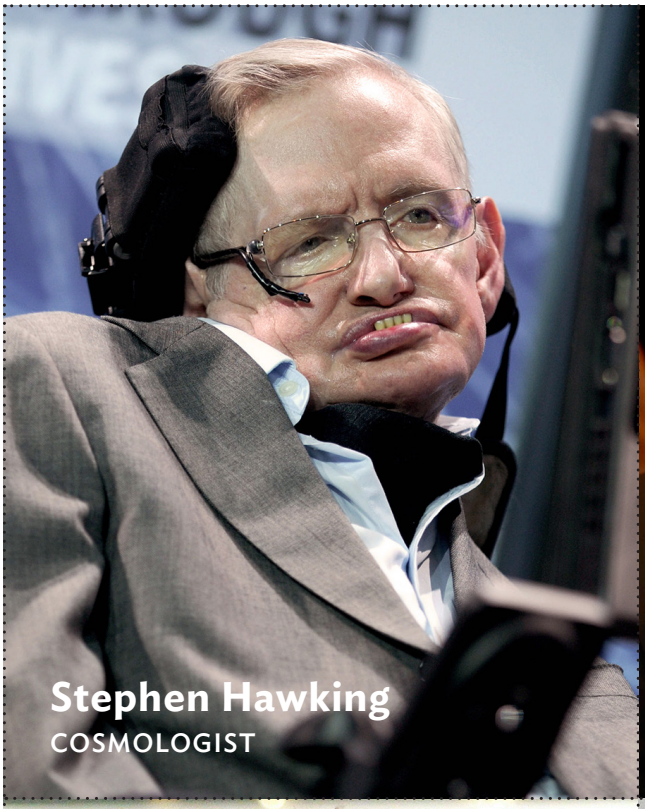
Grace Murray Hopper liked solving problems. And she was not happy to do something a certain way just because that's the way other people did it. In the 1950s, computers were given instructions as a series of numbers—all zeroes and ones. A computer programmer might need seven numbers in a row just to tell a computer to stop. Writing a computer program took a long time. It was easy to make a mistake. Hopper thought that writing a computer program should be easier. Other people said it couldn't be done, but she stuck to it—for years! She figured out a way to write computer programs using real words, like "begin" and "end." Hopper changed the computer world forever.

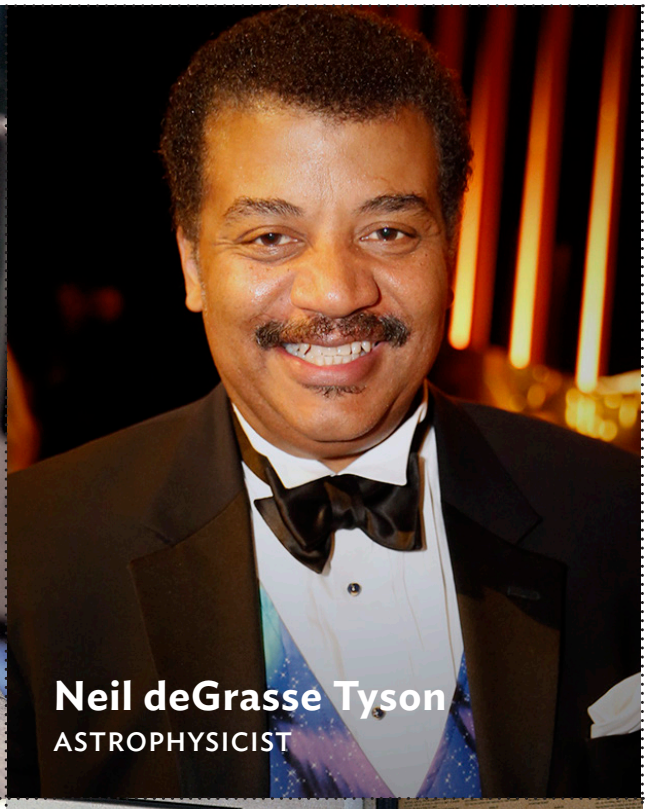
Nate Silver
STATISTICIAN

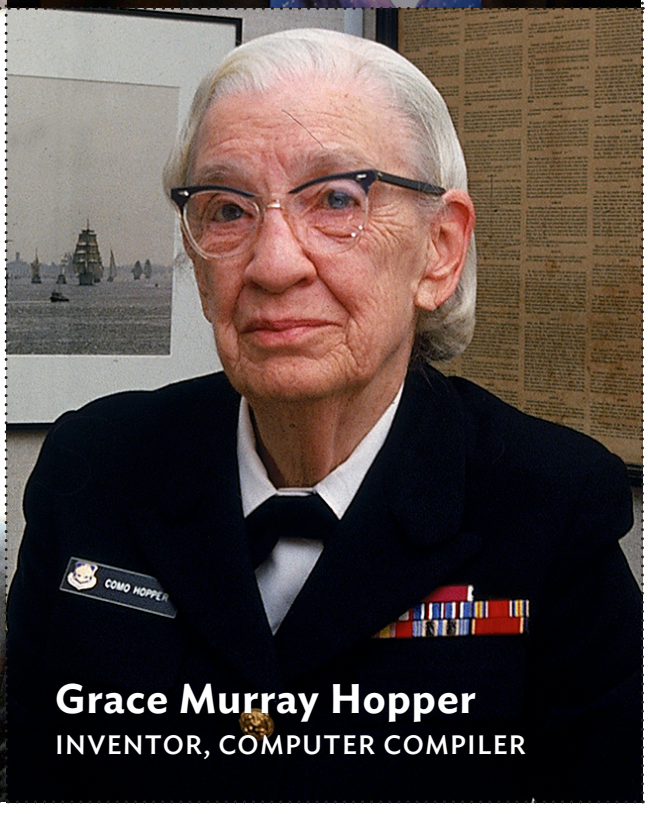
Many jobs involve some math, but Nate Silver's is almost all math. He looks at numbers—LOTS of numbers—to make predictions. As a kid, he loved baseball and statistics. What was a player's batting average? How did the player perform against a particular pitcher?

As an adult, Silver made a business of analyzing baseball. Now, he makes predictions about other things as well: the Super Bowl and elections, for example. In 2012, he used numbers to predict who would be the next U.S. president and how people would vote in each state. He was right 50 out of 50 times.

SCIENCE STAR CARDS







SCIENCE STAR CARDS

Jose Hernandez-Rebollar

INVENTOR, SIGN LANGUAGE READER

American Sign Language (ASL) is used by people who are deaf. ASL is also used by hearing people to communicate with people who cannot hear. People who use ASL use their hands to express ideas, sign specific words and spell words. Each letter in the alphabet has its own sign.

Jose Hernandez-Rebollar invented a machine that can "read" ASL signs. The invention looks something like a glove with wires attached. People who use ASL wear the invention on their hands. A computer translates their sign language into printed or spoken words. Hernandez-Rebollar's invention makes it easier for people who are deaf to communicate with people who can hear or who don't know sign language.

Patricia Bath

INVENTOR, CATARACT SURGERY PROCEDURE

Patricia Bath grew up in Harlem, in the heart of New York City. Her parents worked hard so that she could have a good education. Her mom bought her a chemistry set to get young Patricia interested in science. Her mom's plan seems to have succeeded.

Bath became an eye doctor. In 1973, she was the first African American to complete her studies in ophthalmology. (Ophthalmology is the study of the eye and its diseases.) In 1986, Bath invented a new treatment for patients with an eye problem called cataracts. In 1988, she got a patent for her invention. She was the first African-American female doctor to get a medical patent.

Mona Hanna-Attisha

PEDIATRICIAN

In 2015, Mona Hanna-Attisha discovered a serious problem among her young patients in Flint, Michigan: lead poisoning. Lead makes kids sick.

Two years before, the city of Flint began getting its water from the Flint River. Many people complained that the water was bad for drinking. Hanna-Attisha compared information about her patients before and after the water supply changed. Her results showed the water was causing lead poisoning in her patients.

The people in Flint are drinking bottled water until a better answer is found. And Hanna-Attisha is a hero for pointing out a problem affecting so many people's lives.

Maya Lin

ARCHITECT AND DESIGNER

Maya Lin is an architect. She designs buildings and outdoor spaces. Her design for the Vietnam Veterans Memorial in Washington, D.C., won a national contest while she was still in college. Since then, she's designed the Civil Rights Memorial in Alabama, the Langston Hughes Library in Tennessee and even a park and outdoor skating rink in Michigan.

An architect has to know about science—what kinds of materials to use, the effects of lighting and heating, and how to build something so it won't fall down. And an architect has to know about art—what looks interesting or beautiful. Lin knows both.

SCIENCE STAR CARDS