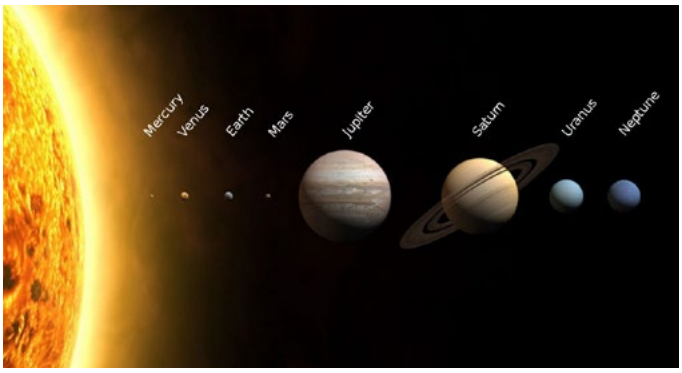
You may have seen movies or TV shows in which someone plays a scientist.
In real life, they are actors or actresses.
Maybe you've also heard of real scientists who become celebrities.
Neil deGrasse Tyson is one of those.
He is an astronomer and a celebrity.

Neil deGrasse Tyson

Astronomy and Astrophysics

Dr. Tyson grew up in an area of New York City called *the Bronx*. When he was 9, he visited a planetarium. He remembers, "I was never the same after that… The lights go off and the stars come out—I had never seen that in my life. I grew up in the city." He immediately fell in love with astronomy.

Dr. Tyson was not always the best student. As he went through school, some people discouraged him from becoming a scientist. But he was determined. He worked hard. Eventually, he earned a degree in physics, two more degrees in astronomy and astrophysics, and a PhD in astrophysics. He became the director of the Hayden Planetarium—the same place where he first saw the stars!



Dr. Tyson has the ability to explain complicated science to everyone. He doesn't just talk about astronomy. He uses his fame to talk to people about about planet Earth, how it is changing over time, and why it's important that we take care of the home we share. Human activity draws on Earth's natural resources. Our use of those resources has consequences. Some of those are short-term and some are long-term, but always there are consequences for human actions. We need clean air and water. As the population grows, more people consume more of Earth's resources. We need more energy resources. We need more food.

Dr. Tyson cites scientific research related to climate change as an example of how science matters to everyone. Anyone can find a study to show that climate change isn't real. But the evidence from many more scientists shows that climate change is a threat to Earth's systems. Studies show that some of the types of energy we use, and some of the things we do cause global warming. Greenhouses gases are increasing, and temperatures are rising. The two are not just two things that happen at the same time, which is a *correlational relationship*. In fact,

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the relationship is *causal*. An increase in greenhouse gases, caused by our use of resources, causes temperatures to rise. Temperatures rising causes climate change all around the globe.

Some phenomena can have more than one cause, and cause and effect relationships are not always clear. That is why scientists continue to do research and to share their research. They build on each other's ideas. They repeat—or replicate—one another's studies to see if they get the same results. They check that the data analysis another scientist did is appropriate. They look for sufficient evidence. They critique one another to be sure that evidence supports claims. They check whether explanations contain solid reasoning and logic. It is not just likely—or probable—that humans are hurting the planet. It has been shown in one investigation after another.

Neil deGrasse Tyson has become a celebrity. His love of astronomy is what started his career. But, his love of science does not just focus "out there" in the sky. It comes back to Earth, and the need for everyone to play a part in the taking care of the planet. Dr. Tyson is easy to find on the Internet if you would like to see and hear him talk about science!

Works Cited

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