



Astronomer/ Research Scientist



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Astronomer/
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I study the planets and small bodies in the solar system, using Earth-based and space-based telescopes, as well as planetary probes. I use special instruments to learn what the small bodies are made of. I also measure the temperatures of comets, asteroids, planetary satellites, and other objects in the solar system to learn details about them.

Areas of expertise:

- Infrared astronomy
- Planetary physics
- Planetary geology

How I first became interested in this profession:

As a grade-school student, my first love was chemistry. At age fourteen, I was able to view a total eclipse of the Sun that took place near my hometown. From that time forward, I knew that I had to be an astronomer.

What helped prepare me for this job:

I have been reading and studying astronomy and the other physical sciences since I was thirteen years old. I built telescopes and pursued amateur astronomy and rocketry as a student in middle school and high school. In college, I studied math, chemistry, geology, and physics to prepare me for a career in planetary science and astronomy. Several people, including my parents, have encouraged and helped me along the way.

My role models or inspirations:

As a child, my role model was an astronomer named Seth Nicholson. Like Galileo, he discovered four moons of Jupiter.

My education and training:

- B.S., Physics, Iowa State University
- M.S. and Ph.D., Planetary Geology, University of Arizona

My career path:

- Astronomer and planetary scientist at the Universities of Arizona and Hawaii for 20 years
- Astronomer at NASA for 12 1/2 years

What I like about my job:

It is both a pleasure and a privilege to make some contribution, no matter how small, to science and to our knowledge of the universe in which we live. As an astronomer and planetary scientist, I have freedom to work on the things that interest me, to collaborate with very intelligent people all over the world, and to make a contribution to the exploration of the solar system.

What I don't like about my job:

I sometimes have to deal with government rules and responsibilities that take time away from my research.

My advice to anyone interested in this occupation:

Read all you can find about the subject. Buy or make a telescope and use it to study the planets and stars. Also, visit a local observatory and planetarium. Develop a love for math and science, and take all the science and math courses your school offers. Begin to imagine yourself as an explorer of the universe! You can do it!

Additional Resources:

- American Institute of Biological Sciences
<http://www.aibs.org>
- American Physiological Society
<http://www.faseb.org/aps>
- American Society for Biochemistry and Molecular Biology
<http://www.biophysics.org/biophys/society/biohome.htm>
- American Society for Microbiology
<http://www.asmsusa.org>
- Astrobiology Summer Academy
<http://academy.arc.nasa.gov/>
- Biotechnology Industry Organization
<http://www.bio.org/welcome.html>
- Education Pays Calculator
<http://www.educationpays.org/calc.asp>
- Graduate Student Researchers Program
<http://spacelink.nasa.gov/Instructional.Materials/NASA.Educational.Products/Graduate.Student.Researchers.Program.Brochure/.index.html>
- MATHCOUNTS Competition
<http://mathcounts.org/>
- Minority University Research and Education Programs
<http://mured.nasaprs.com/>
- NASA Cooperative Education Program for college students
<http://spacelink.nasa.gov/Educational.Services/NASA.Education.Programs/Student.Support/NASA.Cooperative.Education.Program/.index.html>
- NASA Jobs
<http://nasajobs.nasa.gov/>
- NASA Office of Life and Microgravity Sciences and Applications
<http://www.hq.nasa.gov/office/olmsa/>
- NASA SHARP Internship Program for high-schoolers
<http://www.mtsibase.com/sharp/>
- NASA Student Employment
http://nasajobs.nasa.gov/stud_opps/employment/index.htm
- NASA Student Involvement Program student contests
<http://www.nsip.net/index.cfm>
- Order NASA career videos such as "Engineers: Turning Ideas into Reality," "Careers: Aerospace Engineer" or "Reaching for the Stars" from NASA CORE.
<http://core.nasa.gov>
- Student's Guide to Astrobiology
<http://www.astrobiology.com/student.html>
- Tech-Interns.com
<http://www.tech-interns.com/>

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Thank you.

