

Related Job Titles:

Exobiologist, life scientist, space scientist

Job Description:

Astrobiologists study life in the **universe**: how it began, where it's located and how it has evolved or changed over time. Three main questions drive their research: How did life begin and evolve? Is there life elsewhere in the **universe**? What is the future for life on Earth and beyond? Astrobiologists need to understand how many different kinds of science work together. These kinds of science may include **biology (microbiology, botany, physiology, zoology)**, **chemistry**, **physics**, **geology**, **paleontology** and **astronomy**. Some astrobiologists spend time writing proposals to ask for funding for their research. They usually work regular hours in laboratories and use **microscopes**, computers and other equipment. Some use plants and animals for experiments. Many do research outside, and many work with a team.

Interests / Abilities:

- Do you enjoy doing experiments?
- Are you interested in how animals and plants function?
- Are you curious about whether there is other life in the **universe**?
- Do you work well on your own?
- Do you work well with a team?
- Do you enjoy investigating mysteries or problems?

Education / Training Needed:

The minimum education required for this position is a **bachelor's degree** in **biology**, **astronomy**, **space science**, **chemistry** or another appropriate subject from an accredited **college** or **university**. This course of study must include at least 20 semester hours of **physical science** or **engineering** or experience that leads to the understanding of the equipment used for manned aerospace flights. To do research, a **Ph.D.** is highly desired for this position.

Additional Resources:

- **NASA Office of Space Science**
<http://www.hq.nasa.gov/office/oss>
- **NASA Office of Life and Microgravity Sciences and Applications** <http://www.hq.nasa.gov/office/olmsa>
- **Astrobiology at NASA**
<http://astrobiology.arc.nasa.gov>
- **The Astrobiology Web**
<http://www.astrobiology.com>
- **NASA Specialized Center of Research and Training (NSCORT) / Exobiology**
<http://exobio.ucsd.edu>
- **American Institute of Biological Sciences**
<http://www.aibs.org>
- **American Physiological Society**
<http://www.faseb.org/aps>
- **Biotechnology Industry Organization**
<http://www.bio.org/welcome.html>
- **Biophysical Society**
<http://www.biophysics.org/biophys/society/biohome.htm>

Suggested School Subjects / Courses:

- Science (**biology**, **chemistry**, **physics**, **astronomy**, **planetary science** with **laboratory** research and **fieldwork**)
- Math

Areas of expertise:

- **Chemical and biological evolution**: study what life is, where it's located, how it began and changed over time
- **Biogeochemistry**: study rocks for evidence of life
- **Microbiology**: study microscopic organisms and the conditions of the environments where they can survive (especially very hot/cold environments)
- **Solar system analysis**: research and design new experiments and instruments to explore the **solar system**

What can I do right now?

- Join a local environmental club or organization.
- Participate in Earth Day activities.
- Take summer jobs or internships at parks, farms, plant nurseries, laboratories, museums or camps.
- Visit Astro-Venture regularly to participate in chats and activities.
- Call the American Association of Science and Technology Centers for information on science museums in your area that you might visit. (202) 783-7200
- Participate in science fair projects.

