

# Mystery of the Cosmos: Life's Place in the Universe

*Student Resource Material*

## Books

- Darwin, Charles. *The Origin of Species*, Grammercy, 1998.  
-- This is the latest edition of the work whose impact upon biology has been lasting and, at times, controversial.
- Feynman, Richard Phillips. *The Meaning of It All: Thoughts of a Citizen Scientist*, Helix Books, 1998.  
-- Based on three lectures, given by the acclaimed physicist, on the relationship between science and religion, and the meaning of life.
- Gould, Stephen J. *Dinosaur in a Haystack: Reflections in Natural History*, Harmony Books (division of Crown Publishing Group), 1996.  
-- Collection of essays from the well-known paleontologist, focusing on time, space and history, and the overarching theme of evolution.
- Hawking, Stephen W. *A Brief History of Time: From the Big Bang to Black Holes*, Bantam Books, 1988.  
-- Provides an overview of our understanding of space, time and their relationship. Did the universe have a starting point, and how did its formation take place? And if the universe had a beginning, does that mean that it will also have an end?
- Lederman, Leon, and Teresi, Dick. *The God Particle: If the Universe Is the Answer, What Is the Question?*, Delta, 1994.  
-- One of our panel participants reviews the history of research into the nature of matter, from Democritus to more recent findings from particle physics research.
- Sagan, Carl. *Billions & Billions: Thoughts on Life and Death at the Brink of the Millennium*, Ballentine Books, 1998.  
-- In the final work of this acclaimed astronomer, discussion centers on his thoughts about the universe and its origin, and his contemplation of God's role in the cosmos.
- Schramm, Dick and Lederman, Leon. *From Quarks to the Cosmos*, Ballentine Books, 1995.

*Cosmos: Tools of Discovery*, W.H. Freeman and Co., 1995.  
--Tells of the development of current views on the nature of space and time. Explains how tools and experiments in physics and astronomy help provide solutions and understanding of problems and concepts in other disciplines.

- Shirley, Donna. *Managing Martians*, Broadway Books, 1998.  
--An autobiographical account of Shirley's ascent from small town Oklahoma to first woman manager of a NASA space program, the successful Pathfinder Mission to Mars.

### Related Web Sites

- [Amazing Space](#)  
Online lessons and activities related to space, the stars, and methods of exploration.
- [An Inquirer's Guide to the Universe](#)  
Provides information on our current understanding of the universe, as well as a gallery of imaginary planets that can be explored.
- [ASTROBIOLOGY: the study of the living universe...](#)  
A NASA site that contains updates on the space program, status of our current knowledge of the universe, and workshop opportunities for teachers. It also links to the Astrobiology Web, a non-NASA site with a wealth of information for students.
- [Astronaut Archive](#)  
National Space Society site that contains interviews with astronauts; link provided here goes to the interview with Dr. Story Musgrave.
- [Cosmos in a Computer](#)  
Provides QuickTime movies of the cosmos, its origin, and evolution.
- [From Mir to Mars](#)  
*Scientific Frontiers* (PBS) site that contains a Webcast of an interview with an astronaut stationed on Mir.
- [History Office, NASA](#)  
Houses the history of NASA and the U.S. space program (searchable).
- [Hubble Heritage Project](#)  
Site maintains a gallery of images, based upon data received from the Hubble Telescope.

- [Mars Missions](#)  
Jet Propulsion Laboratory (JPL) site with information on all of the Mars projects, from Pathfinder to Surveyor.
- [Observatorium](#)  
NASA site containing Earth and space data, information on current missions, and lesson plans.
- [Origin and Destiny of the Universe](#)  
A NASA site that provides data on the universe, and discussion of data collection methods.
- [Project Galileo](#)  
JPL site that provides the latest information on the Jupiter mission.
- [The Hot Big Bang Model](#)  
Provides an overview of what's known and what's not known about the beginning of our universe.
- [The SETI Institute](#)  
Homepage for the Institute, which conducts research to determine if life exists elsewhere in the universe.
- [Windows to the Universe](#)  
Comprehensive site with resources on all components of the universe, including its representation in myth and art.

### **Career Corner**

The field of space exploration encompasses many possible career paths, including:

- aerodynamicist
- aeronautical engineer
- astronaut
- astronomer
- biophysicist
- computer programmer
- geologist
- geophysicist
- microbiologist
- paleontologist
- physician
- pilot
- researcher

The following sites, maintained by UC Berkeley, can help you begin to research some of these scientific careers.

[Biological Sciences Career Exploration Links](#)

[Biological Sciences Career Exploration Links](#)

[Physical Sciences Career Exploration Links](#)

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