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# The International Year of Astronomy 2009:

## Key Programs at the Astronomical Society of the Pacific

Imagine an opportunity to support science education that was 400 years in the making! Consider the power of an entire year devoted to raising the public awareness of astronomy and scientific literacy — for teachers and students, for community groups, for the media, and for the public at large. This is the essence of the International Year of Astronomy (IYA).

### IYA 2009

In 1609, Galileo first turned his telescope to the heavens, and revolutionized humanity's understanding of its place in the cosmos. Over the last 400 years, new telescopes and other instruments have allowed us to expand Galileo's work and learn more about the universe, its geography, and its destiny than Galileo could ever have dreamed.

Endorsed by the United Nations, United Nations Educational, Scientific and Cultural Organization (UNESCO), and the International Astronomical Union, IYA will be a global celebration of progress in astronomy and its contributions to society and culture over the past four centuries, with the aim of helping people rediscover their place in the universe through connection to the sky. The astronomy and education communities of countries throughout the world are mobilizing for the effort.

### U.S. Plans

In the U.S., IYA is a once-in-a-lifetime chance to engage the population of the nation through the outreach efforts of scientists, amateur astronomers, educators, museums, after-school programs, parks and recreational centers, community groups, NASA, corporations, and everyone who believes that a scientifically literate work force is the key to an abundant future.

U.S. science education lags alarming behind other nations, just at a time when the country needs trained scientists, engineers, and technicians more than ever. No topic in science captures the imagination of young people and conveys the fascination of science as effectively as astronomy.

For an entire year, the media, the arts, and the educational system will share a common interest in the heavens and the mysteries of the cosmos. Already, television specials, musical and dramatic presentations, and lesson plans for schools are being planned. But so much more could be done.

### The ASP's Role

Since its founding in 1889 (as the first truly national and international astronomy organization in the U.S.), the ASP has brought together scientists, educators, amateur astronomers, and the public in partnerships that bring the excitement of astronomy "down to earth." The ASP is devoted to the improvement of science education and literacy through engagement in astronomy, and has made this a primary mission of the organization.

The ASP is designated an Organizational Node for IYA by the International Astronomical Union, and a key partner for IYA efforts in the U.S. by the American Astronomical Society. But if we are to have a truly national impact in the U.S., we must augment our current resources by engaging organizations, companies, and individuals who share our vision of the opportunity for increased science literacy that 2009 represents.

## Signature IYA Projects for the ASP

The ASP invites you to join with us to offer formal and informal educators, amateur astronomers and all those with a passion for astronomy the resources and materials necessary to take full advantage of the International Year of Astronomy and the opportunities for the future that the year represents. The Astronomical Society of the Pacific is pursuing the following signature projects, to be initiated in 2009 with plans to sustain these efforts beyond:

1. **IYA 2009 Cosmic Companion:** The publication of a suite of meaningful and accessible astronomy activities for IYA, both in print and online, linked to NASA's IYA calendar of monthly themes, featured objects and missions. The materials and activities would be adapted for use by a variety of users, including amateur astronomers engaged in public outreach, teachers meeting science curriculum goals in the classroom, informal educators at museums and other venues enhancing their "free choice" science learning opportunities for public audiences, and other groups. The materials would be made widely available with training modules for each version. The NASA Science Mission Directorate, Space Telescope Science Institute, and Origins Forum are supporting our efforts to integrate NASA monthly themes into the Cosmic Companion effort.
2. **Galileo Teacher Training Program:** Working with the American Astronomical Society, this program will provide for the establishment of regional centers around the country to train teachers in doing hands-on astronomy activities with an IYA focus, beginning with the ASP's Project ASTRO sites. The effort will emphasize subjects that Galileo observed, such as the moons of Jupiter and the phases of Venus, actively engaging teachers and students in the process of science. The program would send mentor teachers back to their own districts with experience and materials for training their colleagues. An additional element will link teachers with astronomers in their local areas.
3. **Expanding the Informal Universe:** The expansion of the ASP's professional development program for informal educators at small and medium-sized museums, parks, and nature and environmental centers to include new distance-learning opportunities as well as tools and training to enable these educators to providing exciting IYA public and school programs.
4. **Cosmic Clearing-House:** The development of a web site, in collaboration with the international IYA "Portal to the Universe" web project, to serve as an educational clearing house for the best astronomy outreach resources, activities, images, materials, guides, facilities and events for a variety of target audiences from the casual enthusiast to the professional educator. Sections suitable for teachers, museum educators, amateur astronomers, after-school providers, family program leaders, and other groups would be included, with links to existing useful sites as well as directories of materials and information in areas in which resources are currently needed. The site would be developed for sustainability beyond 2009, as a permanent resource for anyone interested in astronomy, space science, education and outreach.

### You Can Make It Happen

The International Year of Astronomy represents a singular opportunity for stimulating public awareness of the heavens, of astronomical discovery, and of the value of science as a tool for understanding the world and creating a better future for all. The year 2009 represents a unique opportunity to spark an interest in the next generation of scientists who will take our country and our society into the future. We extend a special invitation to join us today in support of ASP's initiatives to achieve these goals and establish a legacy for future generations. You can make a difference. By working together, we can improve science literacy through engagement in astronomy — providing for the future as we celebrate the sky!

For more information on how you can make it happen, visit [www.astrosociety.org/iya](http://www.astrosociety.org/iya)

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**Astronomical Society of the Pacific**  
**390 Ashton Avenue • San Francisco, CA 94112**  
**415.337.1100 phone • 415.337.5205 fax**  
**[www.astrosociety.org](http://www.astrosociety.org)**