

Education and Public Outreach Goal



We will utilize the observations and scientific discoveries of the GLAST mission to improve the understanding and utilization of science and mathematics concepts for grades 9-12.





•Web-based materials

- Space Mysteries
- GLAST Outreach Web Site

Printed materials

- TOPS Learning Systems
- Teacher's activity booklets and posters

•Educator training

- New teacher's workshops yearly at NSTA, NCTM, etc.
- GLAST Ambassador Master Teachers





Informal Education

- NASA Quest Space Scientists Online Web Chats
- SLAC Virtual Visitor's Center Gamma-ray Exhibit

•Evaluation and Assessment

– Space Mysteries has team of high school teachers for front-end assessment

– Formative and summative evaluation of entire program will be performed by WestEd

GLAST



Space Mysteries



- Funded by NASA Learners grant to SSU for 3 modules (to be released during 2001-2)
- Swift module planned for 2003 release
- Two modules planned for GLAST (2004-5)
- Developed with Videodiscovery, Inc.

GLAST



Space Mysteries Overview

- Teach Physical Science & Mathematics
- Inquiry-driven
- Use the Web in a "videogame" adventure
- Interaction, Innovation, Internet
- Use real satellite data, interviews with real scientists, real analysis techniques
- Involvement by Science Team in video segments





Sample Space Mystery Scenario



The Big Blast

A deep space traveler awakes from the flightfreezer when long-range sensors sound the alert of a dangerous environment. You must discover what is happening and what course of action to take.





GLAST Ambassadors Program

- 10 educators
 - Work with GLAST Science Team
 - Develop workshops and curriculum materials
 - Selected in national competition
 - Must have own dissemination plan
 - Attend GLAST launch
 - Help staff exhibition booth at educator conferences
 - Paid modest annual stipend, plus travel





GLAST Outreach Web Site





The Gamma-ray Universe Mission Details Instrumentation Ask A. Scientist Links The Gamma-ray Large Area Space Telescope:Understanding the Most Powerful Energy Sources in the Universe



http://www-glast.sonoma.edu









These are fun-loving folk of no particular age, race, political affiliation, or size. Because they are clever and brave, can change sizes and defy gravity, we let them demonstrate the "how to's" in all the books we publish. Their purpose in life is to help young people achieve success one step at a time.







NASA QuestChats



A QuestChat is an opportunity for students and the general public to meet and ask questions of NASA experts using the Internet. From their own desktop, people can type comments and questions into a "chat room" and receive live responses from NASA personnel.

http://quest.arc.nasa.gov/ltc/

Students will experience the excitement and inspiration accrued from interacting live with someone who works for NASA!





E/PO Dissemination Plan

- Educator workshops and exhibits at NSTA, NCTM, CSTA, NTTI, etc.
- GLAST E/PO Web site
- NASA OSS Forums and Broker/Facilitators
- NASA CORE
- NASA Science/Education Gateway
- NASA Quest Web site
- Videodiscovery Web site, marketing, and catalog
- TOPS Web site, marketing, and catalog

Dissemination measured by WestEd





Project E/PO Ideas

- 1 2 hour PBS video on gamma-ray astronomy by Tom Lucas Productions (Mysteries of Deep Space)
- Great Explorations in Math and Science (GEMS) module (UCB Lawrence Hall of Science)
- Two additional Space Mysteries (Videodiscovery, Inc.)
- Webcasts with either NASA Quest, NASA LTP, or Live@Exploratorium

