BACKGROUND

Who is Cornerstone Evaluation Associates LLC?

- Pittsburgh-based
- Client-centered
- Research firm specializing in educational research and program evaluation
- Cost-effective technical assistance in collecting, managing, interpreting and using quantitative and qualitative data
- For making data-driven decisions to ensure quality and effectiveness of programs and projects
- WBE, NAWBO, AERA, AEA
What kinds of science-based educational projects do we evaluate?

Cornerstone. . .

- Uses broad spectrum of data gathering strategies
- Evaluates both formal and informal science-based educational programs
- Evaluates programs in three areas—museum programs, educational web sites and E/PO efforts
- Can use these evaluations as a foundation for designing the WISE evaluation plan
INFORMAL EDUCATION—Museum Programs

National Aviary In Pittsburgh

- Exploration of visitors’ patterns of involvement with old and new exhibits
- Exit interview tapping perceptions of experience
- Provided evidence of enhanced attraction power of new exhibits

Carnegie Science Center—Pittsburgh, PA

- Evaluations of the effectiveness of after-school/summer programs
- Designed to increase middle and high school students’ interest in science and enhance their attitudes toward science and science careers
- Total immersion programs—all-day summer camp as opposed to after-school hours—have greater impact

Specializing in Program Evaluation
INFORMAL EDUCATION—Science-Based Educational Web Sites

SEGway—University of California/Berkeley

- Evaluation of web-based science lessons
- Middle/high school teachers implemented SEGway lessons and attended focus groups to share their experiences and perceptions of student impact
- Findings by lesson of what worked, didn’t work and suggestions for improvement helped guide developers in making critical changes to lessons

Imagine the Universe!—NASA Goddard Space Flight Center

- Three-tier evaluation to improve web site—usability study, teacher focus group and on-line survey
- Findings guided client in making critical changes in the web site design and lesson plans
FORMAL/INFORMAL EDUCATION—E/PO Efforts of NASA Missions

- **Astro-E2**—NASA Goddard Space Flight Center—Launch Summer 2005
- **THEMIS**—University of California/Berkeley—Launch Summer 2006
- **WISE**—University of California/Berkeley—Launch 2009

- Multiple techniques used for both formative and summative evaluation activities...

  Web site usability studies
  Web site reading level analyses
  On-line surveys
  Accountability data to catalogue web site hits

  Workshop questionnaires
  Mailed surveys to teachers/students
  Intensive telephone interviews
  Focus groups

  Documentation of project process using structured telephone interviews and questionnaires
THE WISE E/PO EFFORT

What preliminary plans do we have for evaluating WISE E/PO?

To design a WISE evaluation plan, we anticipate adapting an approach we are using for THEMIS. This strategy involves serving in two capacities.

- As an architect/designer of evaluative activities that will help inform us about the effectiveness of each WISE component

- As a collaborative consultant to the WISE partners to determine what evaluative activities are already in place