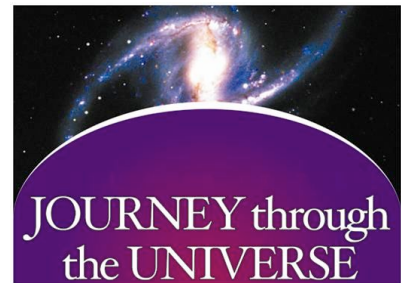


### 3. A Program Menu

*A suite of program options* allowing a community to customize programming for delivery throughout the year. Programs are conducted by a National Team of scientists, engineers, and educators (the Visiting Researchers / Visiting Educators) from the National Center for Earth and Space Science Education (NCESSE) and research organizations nationally.



#### Programming for Students (grade preK-20)

- ***Presentations by Researchers to Grade preK-20 Classrooms***

- ***Goals:*** provide students a window on research in terms of process, content, and human experience; and an understanding of the pathway to a research career.
- ***Presenters:*** *Journey through the Universe* Visiting Researchers
- ***Venues:*** individual grade preK-12 classrooms; undergraduate classes; graduate school colloquia
- ***Scope:*** can vary dramatically—up to 100-200 classroom presentations: across a grade level in a large school district, or to all grade preK-12 classrooms in a smaller school district
- ***Program Duration:*** depending on scope, typically one week of presentations by the Team
- ***Program Approach:*** interactive presentation, not a lecture; can include hands-on activities
- ***Options:*** can double classes and still have personal interaction; can include auditorium programs to minimize number of presentations, but they will not be as effective as classroom programs
- ***Add-on Components:*** school-wide celebration or district-wide celebration of subject matter; activities leading up to, and after, researcher visits
- ***Provided to Educators in Advance:*** researcher bio(s) and lesson plan(s), relevant grade preK-12 lessons; ‘process of science’ lesson in preparation for researcher visit; educator training

- ***Presentations by Master Science Educators to Grade preK-16 Classrooms***

- ***Goals:*** conduct presentations that have special need of an expert in science education pedagogy, e.g., programs for grade preK-12 special needs classes; presentations to undergraduate science methods classes for pre-service educators.
- ***Presenters:*** *Journey through the Universe* Visiting Educators

#### Professional Development for Pre- and In-service Educators (grade preK-12)

- ***Professional Development for Grade preK-12 Educators***

- ***Goals:*** to provide training on a comprehensive suite of high quality, inquiry-based lessons directly relevant to the curriculum; mobilize the education community in support of other program elements, e.g., classroom programs, family, and public events; provide educators ownership in the Learning Community Model; and detail the resources available to educators throughout the year.
- ***Presenters:*** an educator/researcher team providing pedagogy and content expertise. *Journey* Visiting Educator from NCESSE; *Journey* Visiting Researcher from NCESSE
- ***Workshop Audiences—Formal Education:*** pre- and in-service educators: elementary (preK-4); or middle (grades 5-8); or high school/non-science major instructors (grades 9-12); or preK-12 combined
- ***Workshop Audiences—Other:*** museum/ science center educators; docents; explainers
- ***Duration:*** half-day to 2-day workshop(s) for 30 to 200 educators

- *Provided in Advance:* workshop advertising flyers; master copies of all lessons with lists of supplies; agendas; assessment tools; package of posters and other visuals for participating schools
- **Master Teacher Workshop**
  - *Goals:* train master teachers on inquiry-based activities so they can help facilitate these activities during high attendance educator workshops; and provide added training for master teachers so they can serve as a local resource in the community.
  - *Other:* same characteristics as for ‘Professional Development for Grade preK-12 Educators’ above
- **Week-long Summer Institute**
  - *Goal:* train-the-trainers workshop for master educators in *Journey through the Universe* communities.
  - *Topics:* training on: lessons, workshop design, assessment, and available resources
- **Partnership Workshop For A Community’s Non-Education Specialists**
  - *Goals:* provide templates for collaboration in education between the local education community and community-based professionals and organizations; foster buy-in for the Learning Community Model.
  - *Presenters:* typically a team comprised of local area educators/school district staff, and NCESSSE staff

### Public Programs (Families, Adults, Children)

- *Goal:* engage parents in the education of their children; foster educational conversations between parent and child; build a bridge between the schools and the public they serve.
- *Presenter:* *Journey through the Universe* Visiting Researcher
- *Venues:* museum/science center; school auditorium or gymnasium; university auditorium; public space
- *Audience Size:* 100-2,000 parents, children, and educators
- *Central Component:* ‘performance’ by a researcher with a high level of audience interaction
- *Add-on Components:* family hands-on activities led by local area high school/undergrad students, community educators; community fair with area organizations at booths showcasing their education programs; night sky viewing using telescopes provided by local amateur astronomers
- *Add-on Components—Facility Dependent:* gallery tours, IMAX film, *etc.*
- *Advertising:* at individual schools as a school function, and as a public event in the media; templates for flyers, and media releases are provided

### Exhibitions and Related Programs

- **The Voyage Scale Model Solar System**
  - *Goal:* community-wide learning in Solar System science and exploration using a replica of the *Voyage Scale Model Solar System* on the National Mall in Washington, DC (<http://voyagesolarsystem.org>).
  - *Elements:* permanent installation of a replica of the *Voyage* exhibition in a community; tour brochures; activity guides facilitating interaction with exhibit; suite of grade K-2, 3-4, 5-8, and 9-13 lessons; workshops for educators; school programs for grade K-20 students; public and family programs

### Distance Learning Programs

Distance learning versions of select programs offered above, for students, teachers, and families.

<http://journeythroughtheuniverse.org>

Contact: Dr. Harri Vanhala; 410-740-6241; [hvanhala@usra.edu](mailto:hvanhala@usra.edu)

National Center for Earth and Space Science Education  
Universities Space Research Association  
10211 Wincopin Circle, Suite 500, Columbia, MD 21044-3432  
Phone: 410-740-6224, Fax: 410-730-1359



*We believe that to continue the legacy of scientific exploration, every generation must be inspired to learn what we know about our world and the Universe, and how we have come to know it.*

*We also believe that it takes a community to educate a child...*

*and that it takes a network of communities to reach a generation.*