INFINISCOPE: CONNECTING AUTHENTIC NASA SCIENCE WITH K12 EDUCATORS THROUGH A DIGITAL TEACHING NETWORK  A.D. Anbar (anbar@asu.edu), A.J. Tamer (atamer@asu.edu), and J. Swann (jlswan@asu.edu), Arizona State University’s Center for Education Through Exploration

Created by ASU’s School of Earth and Space Exploration and funded by NASA’s Science Mission Directorate, Infiniscope (https://infiniscope.org) makes the vastness of space and space exploration inviting, accessible, and interactive for educators and learners of all ages. Infiniscope provides a virtual space to connect educators with scientists, creating opportunities for scientists’ cutting edge space exploration projects to be contextualized in digital learning experiences that inspire curiosity, excitement and confidence.

The Infiniscope portal hosts compelling digital learning experiences that combine NASA visualizations with the latest adaptive learning technology, aligned not only to curricular standards, but to content educators struggle to teach without visualization. Through these efforts we are correcting knowledge gaps and misconceptions commonly identified by science teachers. Examples of digital learning experiences include solar and lunar eclipses, phases of the Moon, Kepler’s third law, meteorite impacts, the history of life on Earth, and more.

The project leverages a pedagogy called “Education Through Exploration”, which posits that curiosity is a mindset we can inspire, exploration is a skill set that we can teach, and discovery is a result we can reward. Our learning design team puts the user at the center and asks what can the learner “do” to demonstrate an understanding of the conceptual relationships. Through an iterative development process and the analytics provided through user testing, we produce digital learning experiences that educators can use immediately, enroll their students to track progress, or customize for their particular classroom.

Infiniscope gives educators the tools and training to create their own digital learning experiences that feature NASA resources through connections to Subject Matter Experts from NASA missions to support authentic science curricula. Educators can share what they have created for their own classrooms within the greater Infiniscope network, so that other members can adapt these lessons to their own curricular needs.

Learners in formal settings, as well as independent learners, all have access to Infiniscope learning experiences, as our digital resources are freely available to anyone through an open web portal. We also support formal and informal educators with many opportunities for professional development and to connect with subject matter experts from NASA missions and funded research.

While more than 2,500 teachers have joined the Infiniscope teaching network over the past four years, we also partner with strategic organizations such as Los Angeles Unified School District, New York State Master Teachers Program and ASU Prep Digital to maximize the reach of NASA’s Science Activation Network.

Come and explore for yourself how you can get connected through the Infiniscope digital teaching network. Whether you are a scientist seeking to share your project with a new generation of learners, or an educator seeking opportunities to truly investigate connections between authentic science data, let Infiniscope be the next step on your journey.