CosmoQuest

Learning Science & Building Community around Citizen Science Collaboration
HELP
WANTED
Citizen Science

Guerilla Science

Community Building

S-ROSES & IDEASS Repo

CosmoQuest X

CosmoAcademy

Educators' Zone

365 Days of Astronomy

Projected Science
audience:
ages 10 & up

products:
CitizenScienceBuilder
TransientTracker
data products & simulations

activities:
citizen science portals (e.g. Moon Mappers)
small research grants program for citizen science

evaluation:
via peer review of science results, Interface Guru

funding:
NASA CAN, NASA CADET, OSIRIS-REx Contract
Robbins et al. proved your results on aggregate are comparable to the results of pros!
Peer-reviewed research produced by:
- MoonMappers - demonstrated accurate crater mapping
- Ice Investigators - Aided discovery of KBOs for NH

Discovered problem: Researchers can mentor in spare time, but require funding for the efforts needed to publish!
Complete

Need Curricula (to complete in 2016)

Pre-Selected
- Planet Builder (Q4 2016)
- Earth Mappers: Image Detective (Q3 2016)
- Dark Energy Explorer (Q1 2017)
- Asteroid Mappers: Bennu (2020)

Timeline
- Jun, RFP announced
- Sep, proposals due
- Jan, announce new programs
Exploring from the Earth to Beyond the Solar System

audience:
middle & high school

products:
Science Fair Research Guide
IDEASS repository
Mentors’ Bureau

activities:
regional science fair training
subject matter expert training

evaluation:
participation numbers, duration of engagement, surveys

funding:
NASA CAN
Henry Lin
won $50k in 2013 with
an Astrophysics project!

Pre-Selected
- Southern Illinois (2016)
- Northern Arizona (2016)

Timeline
- Mar, call for applications
- Jun, applications due
- Aug, announce selections
Learning thru Guided Inquiry & Authentic Investigations

audience:
formal & informal educators

products:
classroom curricula paired with citizen science explanatory videos of activities

activities:
master teacher summer institute
regional teacher professional development
ongoing online PD / community building

evaluation:
external evaluators (McREL), internal research

funding:
NASA CAN, Patreon
Showcasing Your Materials
Expert led Short Courses
with Big Content &
Small Class Sizes

audience:
life-long learners

products:
NA

activities:
SME Training
Online classes by SMEs

evaluation:
external evaluators (McREL), internal research

funding:
NASA CAN, student tuition
What do you have to teach?
Transforming visual data into science literacy thru Science on the Sphere, Dome, & Screen

**audience:**
all audiences

**products:**
image / video repository
sphere / dome shows

**activities:**
acquiring new images
rendering data products for dome/sphere
creating new shows

**evaluation:**
usage numbers, internal research

**funding:**
NASA CAN, HST EPO
Helping Distribute Your Visuals

Enabling Full-Dome Creativity

With SoThS we provide free content you can use for non-commercial projects and shows.

Enabling Non-Profit Content Creation

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Featured Content

Cosmic Castaways

Art Science Wonder

Subscribe / Connect

Find out about our upcoming shows and more.

Latest

Mauna Kea – Fulldome (fisheye) timelapse video
DECEMBER 1, 2014

Mauna Kea – Fulldome (fisheye) images
DECEMBER 1, 2014

Planetarium Shows
DECEMBER 1, 2014
Raising up the voices of Scientists & Science Lovers

**audience:**
all ages

**products:**
daily podcast
YouTube videos

**activities:**
recruiting & training new podcasters
hosting special events

**evaluation:**
submission of show to peer awards

**funding:**
donations
Better science thru communication, collaboration, & community

audience:
all ages*

products:
infographics
memes
webcomics

activities:
blogs, forums, social media

evaluation:
Google analytics, community surveys (led by Gay)

* different platforms target different age groups

funding:
draws from all programs and volunteer efforts
Taking science to the masses & highlighting science everywhere

audience:
all ages

products:
NA

activities:
stage shows, talks
booths
on-the-roam science

evaluation:
surveys, online tracking

funding:
donations, event funded
Partner Events

Bringing science to science adjacent events
• Makers Faires
• Science Fiction / Fantasy Cons
• Science Film / Art Festivals
• Tech and Media Events like SXSW
Partner Institutions
- The STEM Center @SIUE, lead
- Astronomical Society of the Pacific
- InsightSTEM
- Interface Guru
- Lawrence Hall of Science @UC-Berkeley
- McREL International
- Planetary Science Institute
- McDonald Observatory @UT-Austin
- Ward-Beecher Planetarium @YSU

Mission & Facility Partners
- CADC
- Dawn
- Hobby-Eberly Telescope
- Lunar Reconnaissance Orbiter
- New Horizons
- MESSENGER
- OSIRIS-REx
- Vatican Observatory
- WFIRST

Community Partners
- Astronomers without Borders
- Astrosphere New Media Association
- Galileo Teacher Training Program
- International Sci. & Eng. Festival
- NASA Night Sky Network
- NASA Solar System Ambassadors
- St Louis Science Center
- S. Arizona Research, Sci. & Eng. Festival
- Universe Today
- Vatican Observatory
Advisors
• Jessie Antonellis, diversity consultant
• Matt Benjamin, U-Colorado
• Edna Devore, SETI Institute
• Daniel Durda, SWRI
• Llewellyn Falco, software consultant
• Brenda Frye, U-Arizona (education)
• Maurice Henderson, Goddard
• Michelle Higgins, diversity consultant
• Gillian Krezoski, Palomar Observatory
• Peter Lake, iTelescope
• Robert Martin, Clean Coder
• Terry Menz, educator
• Chris Miller, software consultant
• Susan Reynolds Buttons, planetarium consultant
• Mike Simonsen, AAVSO
• Alessandra Springmann, U-Arizona (planetary)
• Brian Warner, minor planet consultant
• Ryan Wyatt, California Academy
• Padma Yanamandra-Fisher, STScI

Evaluators
• InterfaceGuru
• NASA evaluation team
• McREL International