WorldWide Telescope Ambassadors Program

Alyssa Goodman

Harvard University Professor of Astronomy,
WGBH Scholar-in-Residence, Microsoft Academic Partner

Annie Valva

WGBH Interactive, Director of Research & Development

Pat Udomprasert

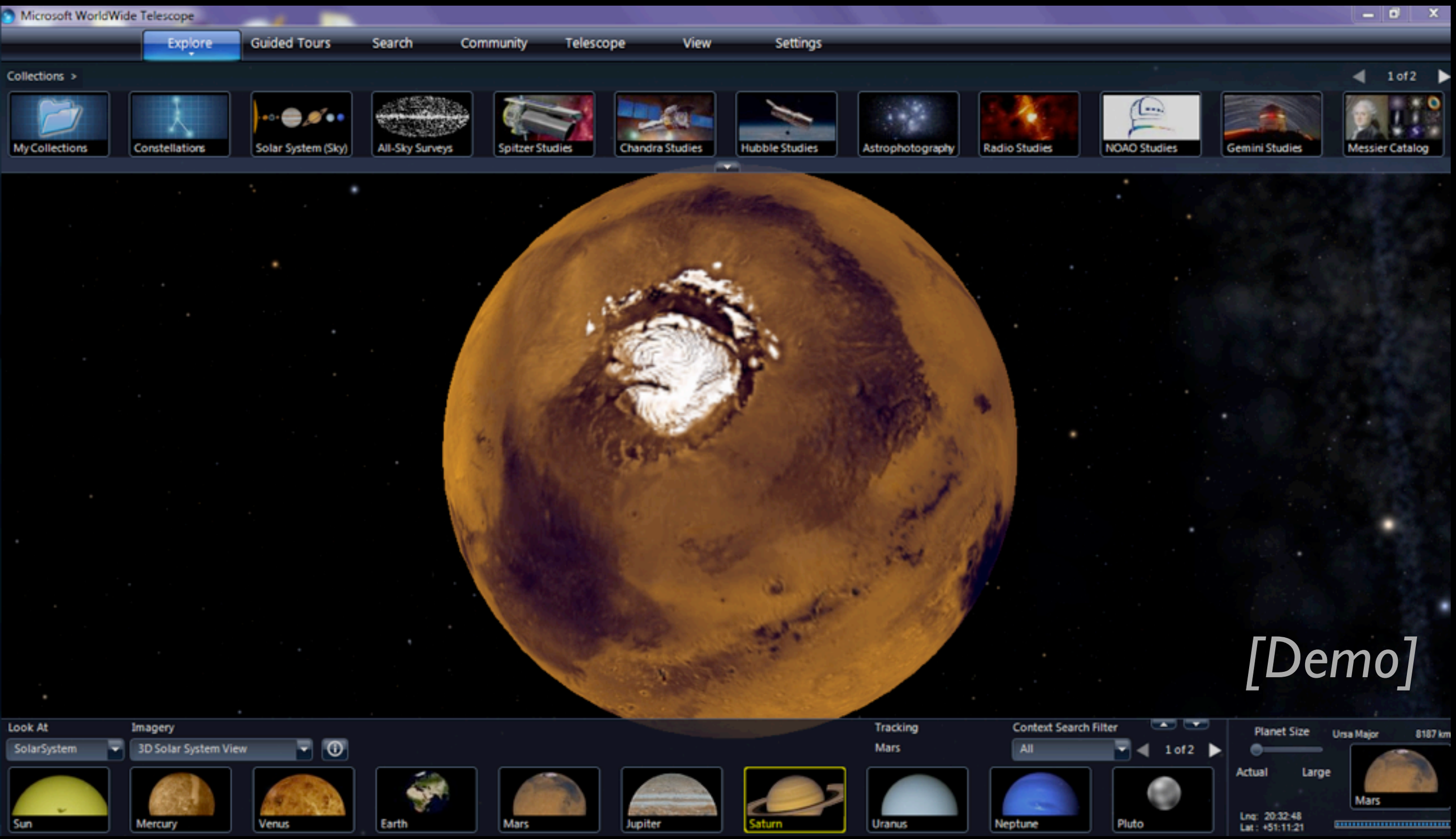
WWT Program Coordinator

WorldWide Telescope: a UIS from Microsoft Research
[UIS=Universe Information System]

Created by Curtis Wong and Jonathan Fay at MSR; AG is "Academic Partner" on the WWT Project

"Why is one polar ice cap on Mars bigger than the other?"

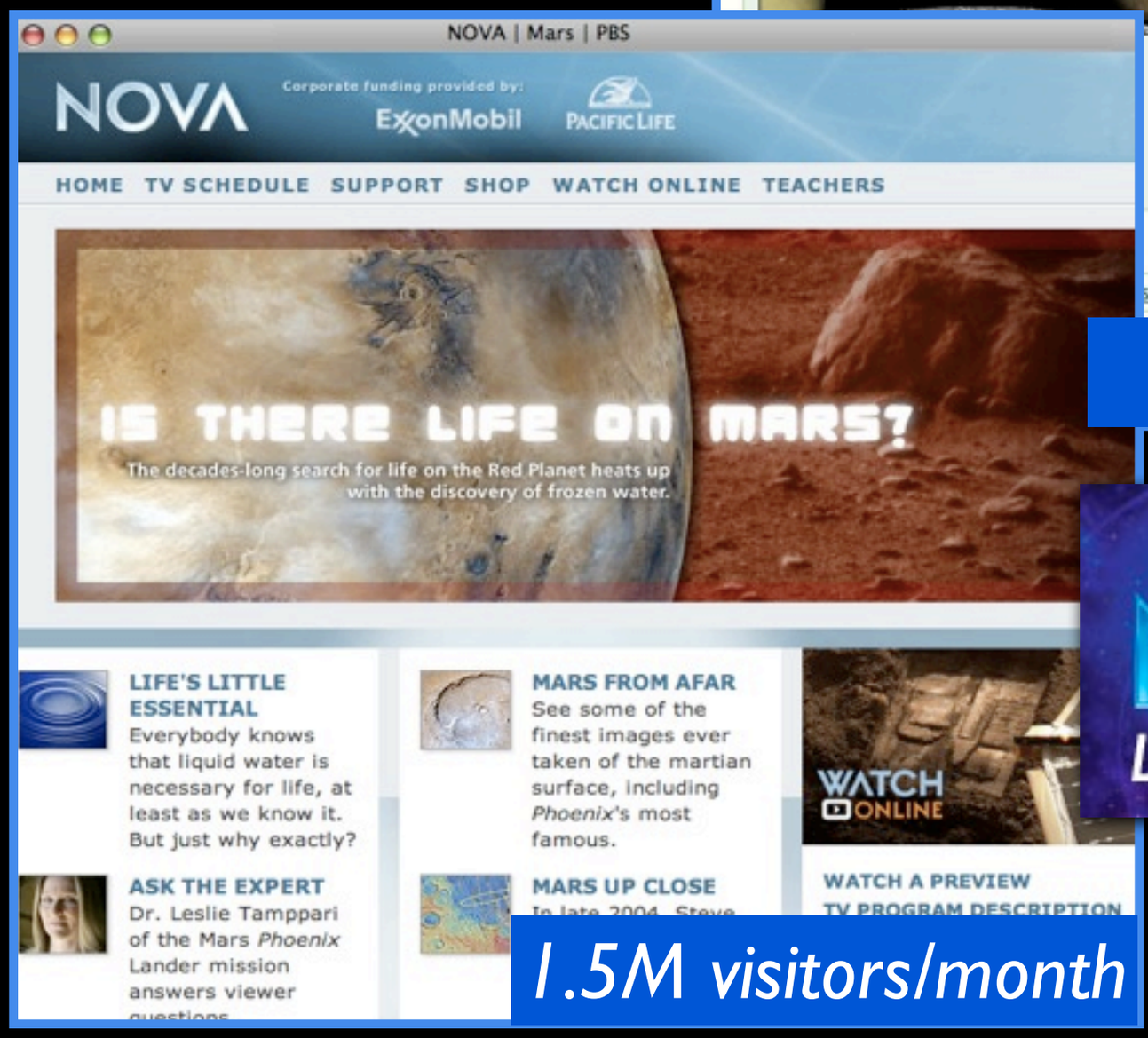
– Clarke Middle School 6th Grader



WGBH

teachers' domain

NOVA



450K registered users

NOVA LABORATORY

1.5M visitors/month

WWT Ambassadors

Who?

Harvard/CfA and WGBH staff in collaboration with Microsoft Research & Volunteer Ambassadors

What?

Future-leaning way to teach and learn STEM concepts

How?

Use new WWT platform to give experts and learners access to the Universe

Where?

Public spaces and schools in a variety of regions

Who?

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Here today

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Annie Valva
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Pat Udomprasert
WWT Program Coordinator

Microsoft Research

Curtis Wong
Creator of WWT

Jonathan Fay
Software Engineer for WWT

Yan Xu
Academic Partners Program

Tony Hey
VP of External Research

Advisors

Christine Borgman
Lead Author, NSF Cyberlearning Report (UCLA)

Roy Gould & Susan Sunbury
CfA Science Education Department

Megan Watzke
NASA Chandra Public Affairs Coordinator

Pilot Ambassadors

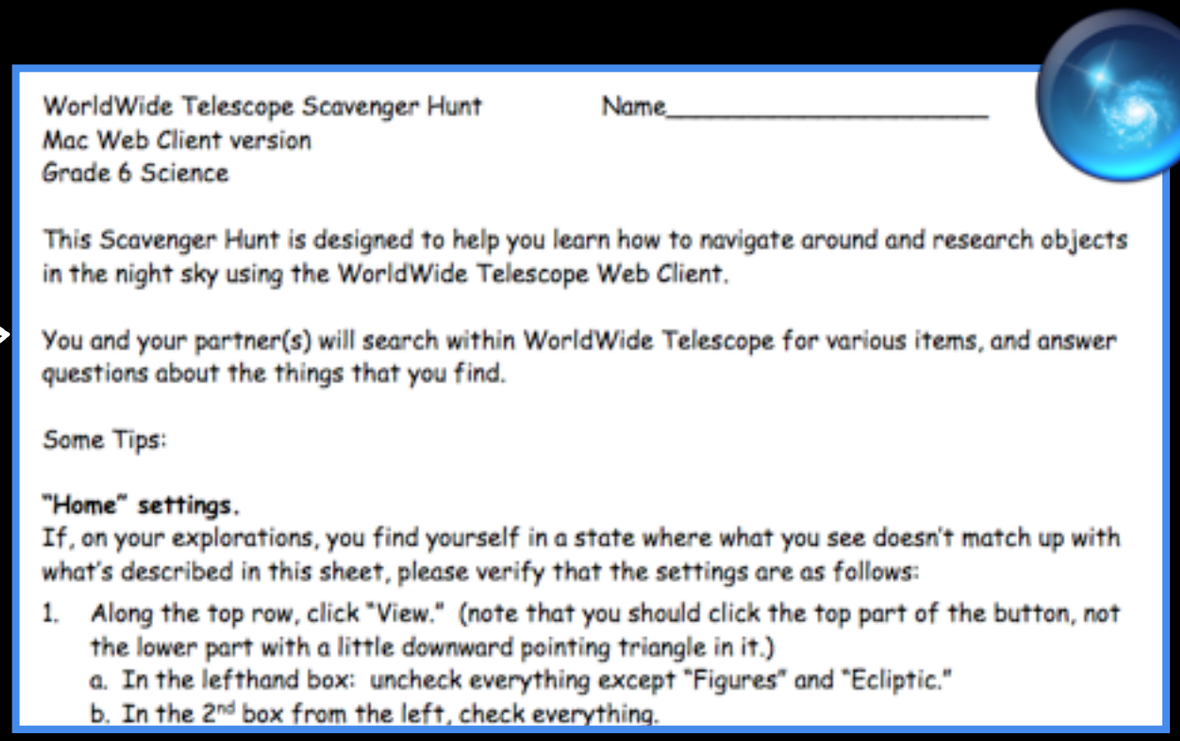
Michelle Bartley, Science Teacher
Clarke Middle School, Lexington, MA

Phil Rosenfield, Graduate Student
University of Washington

Steve Strom*
NOAO Retried Scientist

What?

Future-leaning way to teach and learn STEM concepts



WorldWide Telescope Scavenger Hunt Name_____
Mac Web Client version
Grade 6 Science

This Scavenger Hunt is designed to help you learn how to navigate around and research objects in the night sky using the WorldWide Telescope Web Client.

You and your partner(s) will search within WorldWide Telescope for various items, and answer questions about the things that you find.

Some Tips:

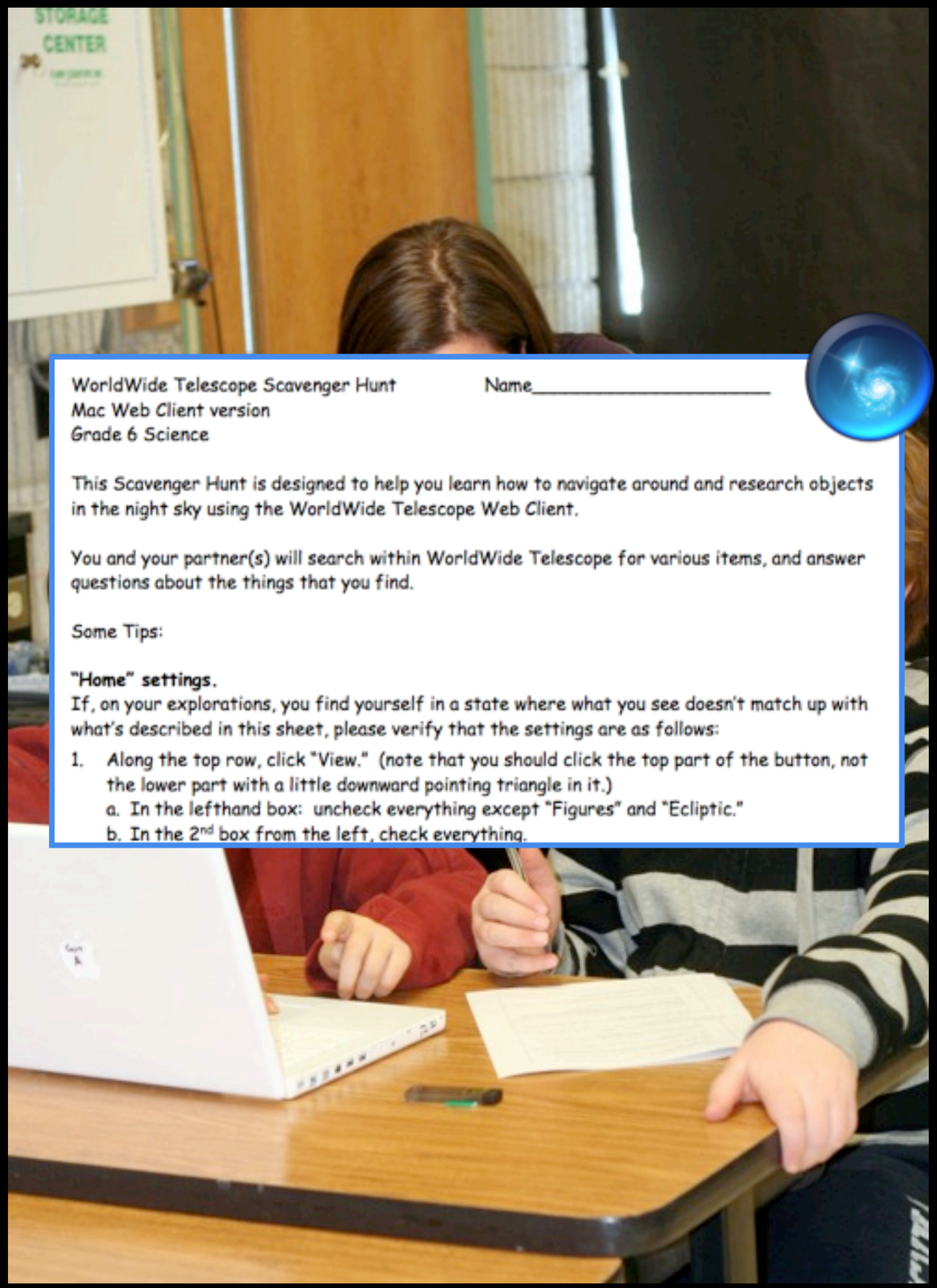
"Home" settings.
If, on your explorations, you find yourself in a state where what you see doesn't match up with what's described in this sheet, please verify that the settings are as follows:

1. Along the top row, click "View." (note that you should click the top part of the button, not the lower part with a little downward pointing triangle in it.)
   a. In the lefthand box: uncheck everything except "Figures" and "Ecliptic."
   b. In the 2nd box from the left, check everything.

WWT Tours,
including creation by Ambassadors & learners + hosting

NOVA LABORATORY

Guided WWT Exploration
activities created by program staff & Ambassadors/teachers



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Clarke Middle School, Lexington, MA (WWT Ambassadors Pilot School)

Michelle Bartley interviews her 6th-grade science class about WWT

December 19, 2009

How?

Using new WWT platform to give experts and learners access to the Universe

data, literature, media

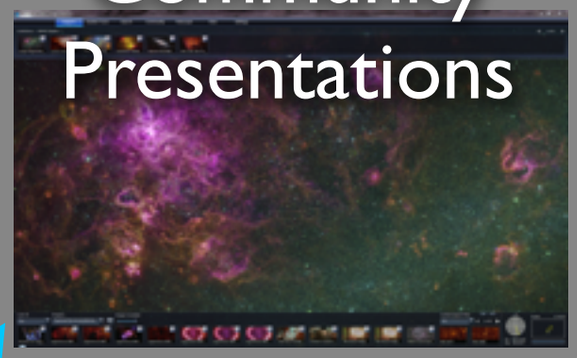
WWT

Ambassadors

WWT Ambassadors Program

Recruiting, Vetting, Coordination

Community Presentations



WWT Tours

hosted/ promoted by

WGBH

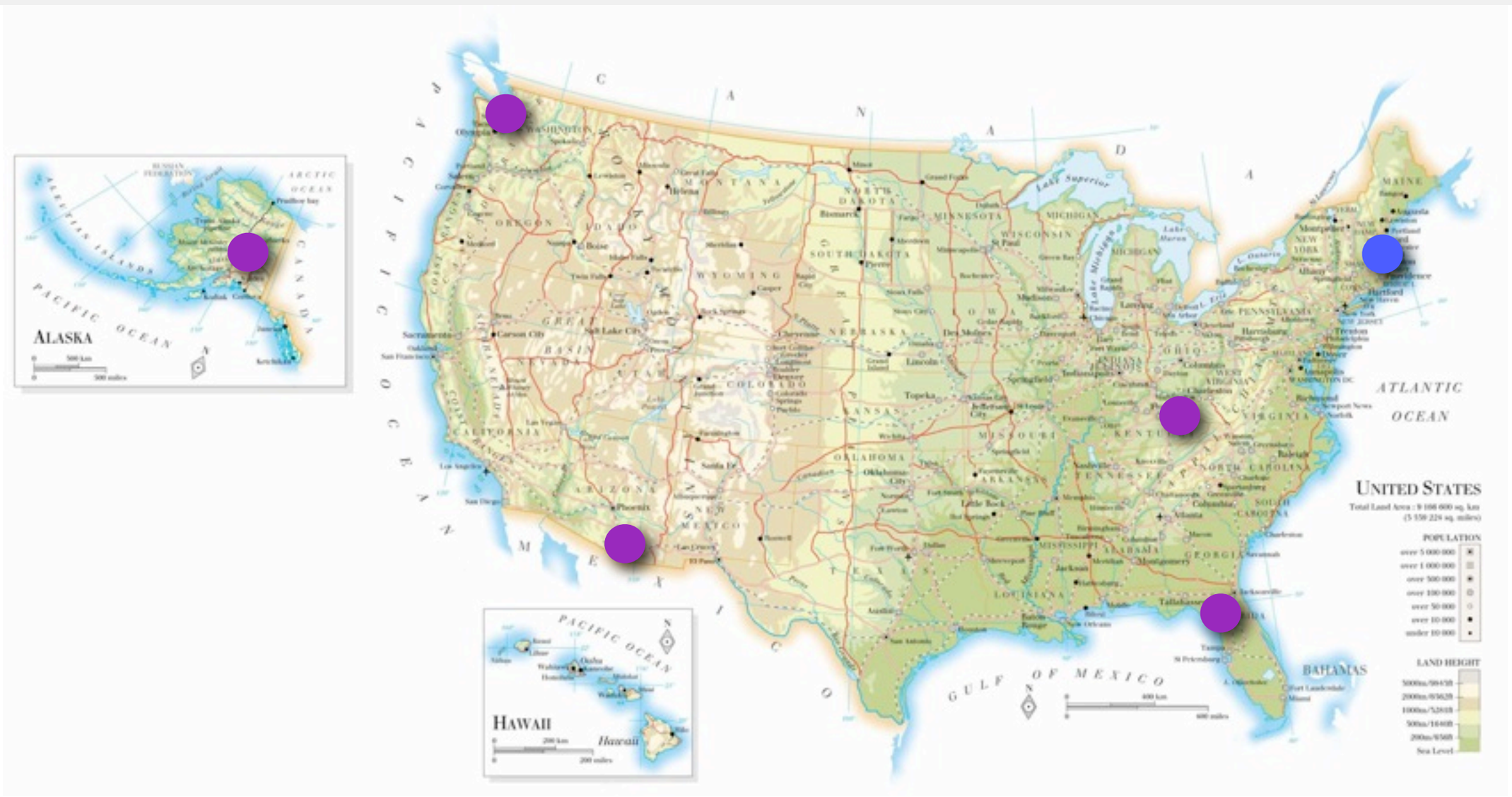
In-school programs

Where?

Public spaces and schools in a variety of regions

Pilot — *Boston Area*

Phase I candidates — *Tucson, AZ; Seattle, WA; Appalachia; Gainesville, FL; Fairbanks, AK*

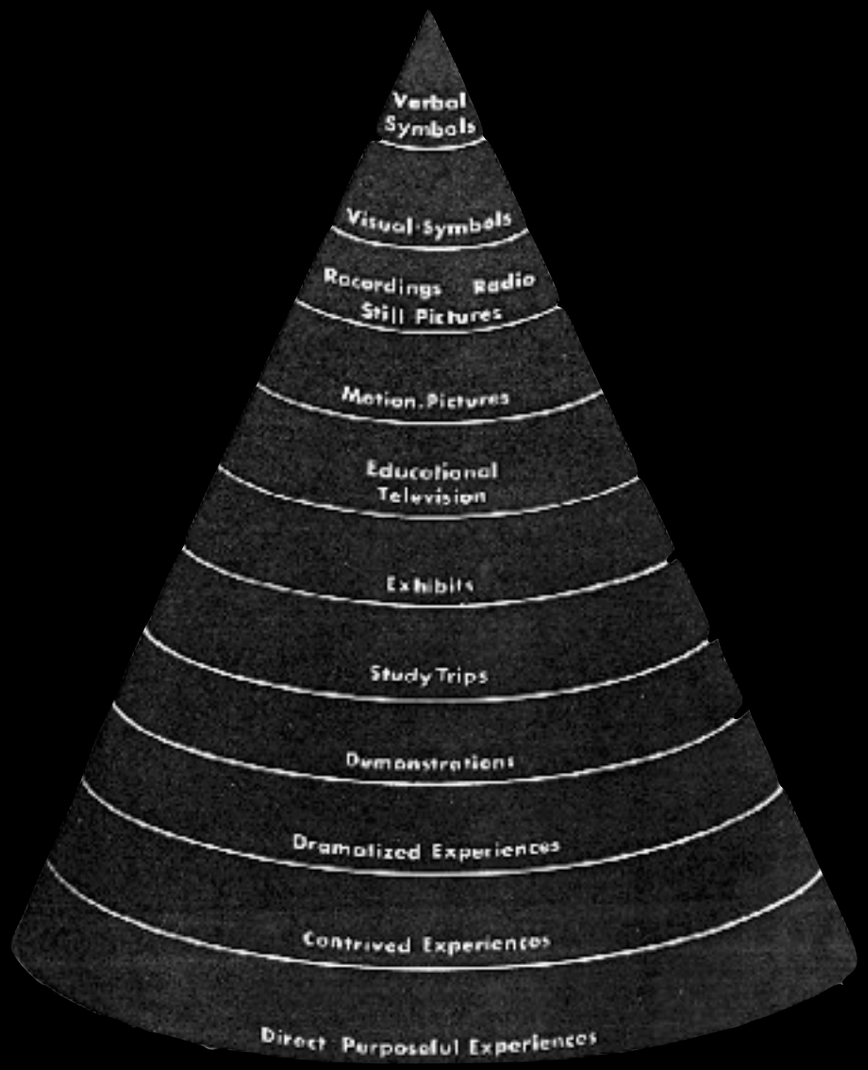


Phase II: US-wide; Phase III: International

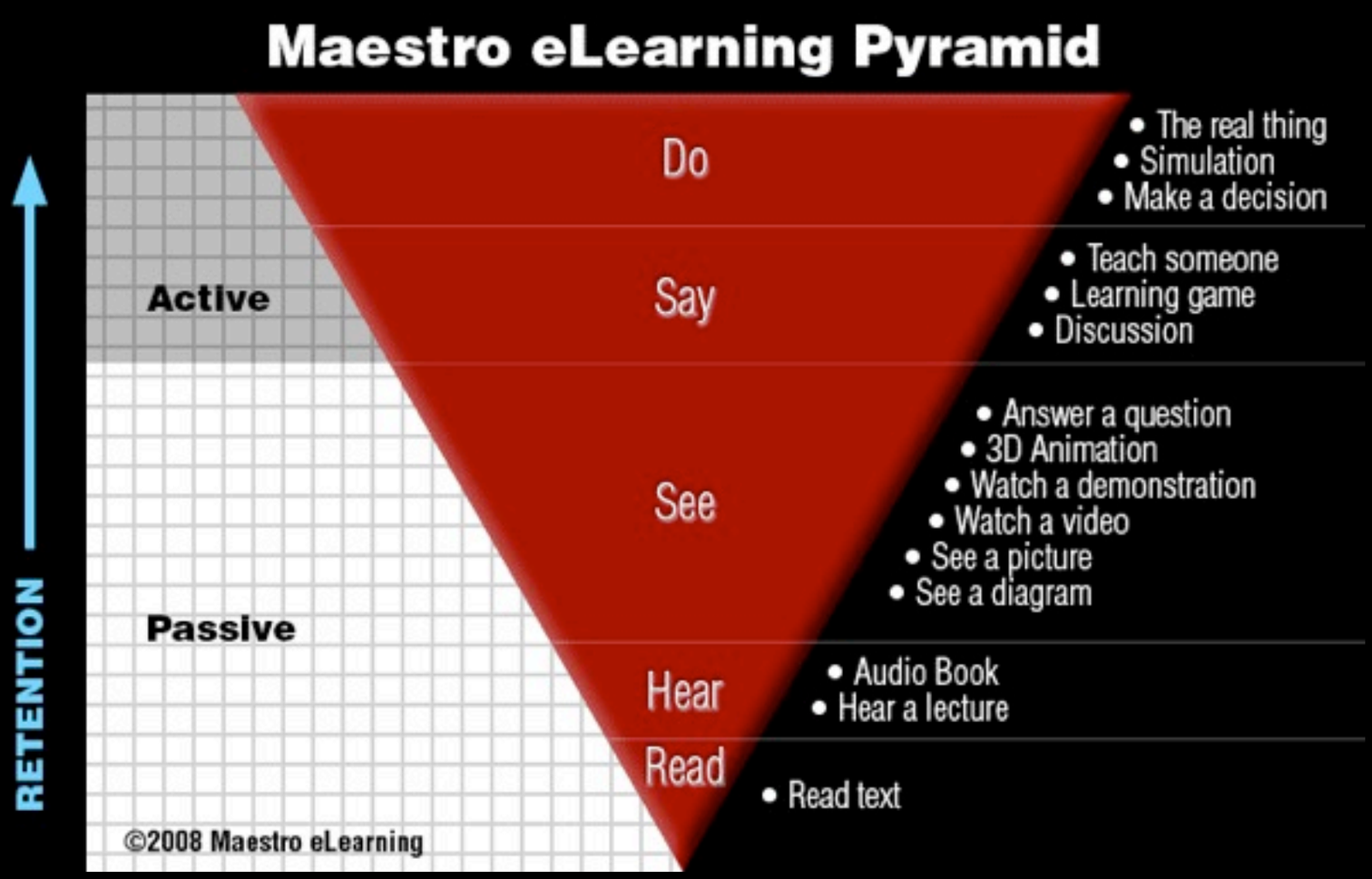
Why?

Increase STEM literacy in US now.

Demonstrate cyberlearning's value to the "Cone of Experience"



Edgar Dale, "Audio Visual Methods in Teaching", 1946-69



"I never knew programs like this could even exist. It's just amazing."

–Clarke Middle School 6th grade student

<u>More quotes from Clarke 6th Graders</u>

"Learning about our Universe by actually seeing and exploring it makes it easier to contemplate and more fun."

"You can explore the Universe yourself and you don't always have to only learn from the teacher."

"It gave me a better mental map of the universe."

(And of the 72 surveys we've collected, 71 are positive toward WWT Ambassadors.)

Exemplars/ Partners...

+ AAAS

ReSET RETIRED SCIENTISTS, ENGINEERS & TECHNICIANS
in the classroom

Search

Volunteer Fair on Jan. 16, 2010 | ReSET Story | Becoming A Volunteer | For Science Educators | Supporting ReSET | For Current Volunteers | ReSET Media

ReSET is a D.C.-based non-profit volunteer organization that partner elemen literacy science exciting

TIP on TOPS

- Scientists participate and assist in classroom presentations, family science nights, field trips, science clubs, careers days and act as content resources over the school year.
- Training at a school site is offered to scientists to bridge the worlds of science and K-12 education.
- Ongoing training and support is provided for the TOPS team, scientists and teachers.
- TOPS targets elementary school who have made a commitment to improving their science instruction and curriculum.
- TOPS has served over 50 elementary schools and over 3,000 students in six counties of Central California.

Boston RE-SEED Center

Search this site

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Volunteer News

Overview

RESEED Silicon Valley
Retirees Enhancing Science Education through Experiments & Demonstrations

Home | About Us | Activities | Experiments & Demos | Laboratory Procedures | A-V Presentations | Instructional Videos | Guestbook | Contact Us

Overview

Numerous studies over t
Project RESEED (Retire
science among students
volunteers are now activ
background in science o

Volunteers typically rece
pre-existing content know
selected volunteer retire

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ADVANCING SCIENCE, SERVING SOCIETY

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MCPS Project
FCPS Project
Guidelines
Other Science Volunteer Programs
SSE Home

Programs

Education

Senior Scientists and Engineers

MCPS Science Volunteer Project

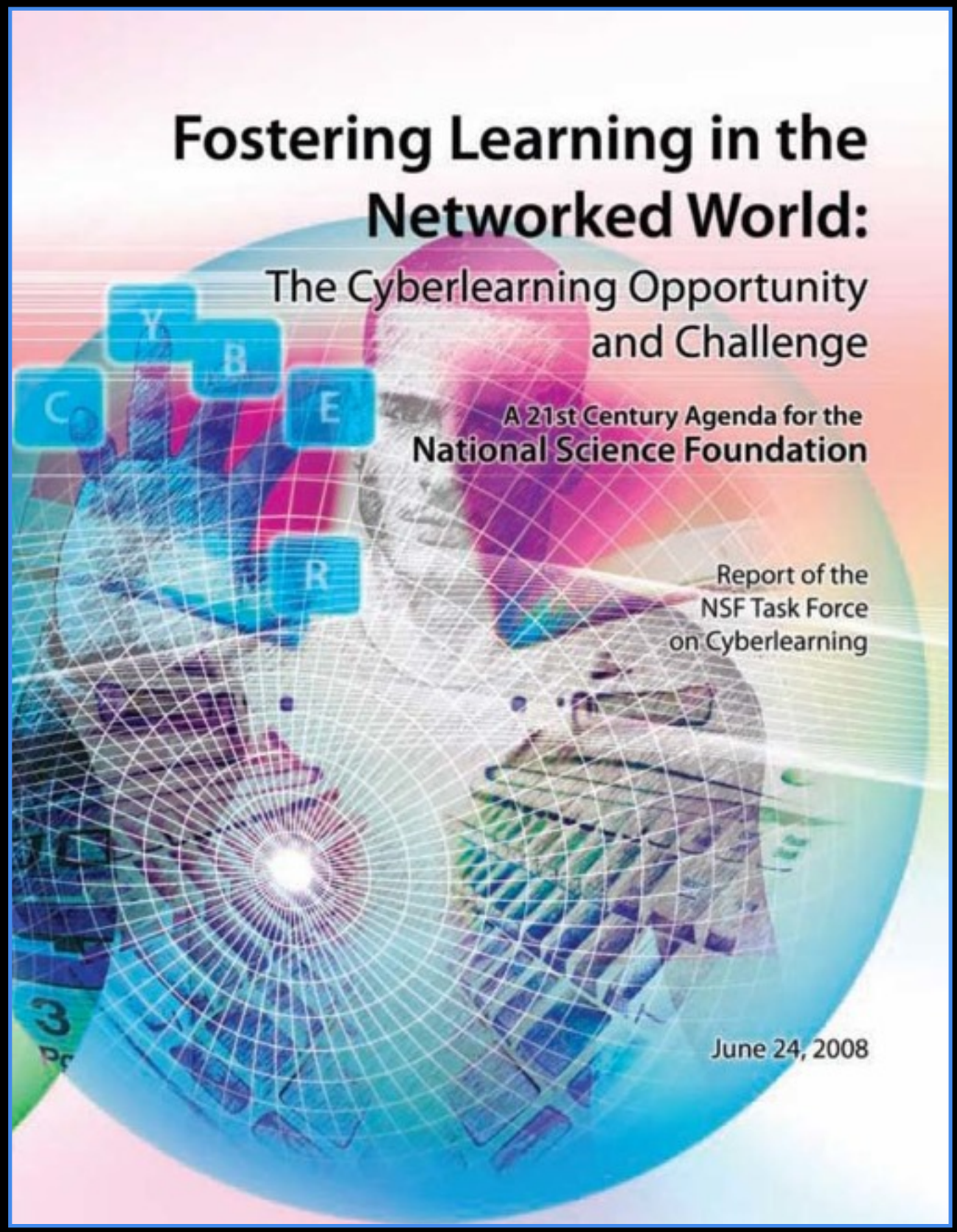
In 2004, the AAAS Senior Scientists and Engineers (AAAS/SSE) decided to partner with the Montgomery County Public Schools (MCPS) to implement the MCPS Science Volunteer Project (MCPS SVP). AAAS and the SSE organization recognized that a successful project would benefit both MCPS and the scientists and engineers who participate. For volunteers, this initiative can:

- Provide great satisfaction in working with teachers and students to share knowledge gathered in university and professional life.
- Broaden content knowledge, e.g., as a physical scientist assists in life science activities, and a life scientist assists in physical science activities.
- Allow them to contribute to AAAS's national focus on science education through lessons learned and recommendations to similar organizations across the US interested in establishing K-8 science volunteer projects in their local school districts.

During the development of the MCPS SVP, it became clear that an essential element of a science volunteer project is "ownership" by a local organization that is strongly motivated to improve K-8 science education. It can be a school organization like the San Joaquin County (CA) Office of

When?

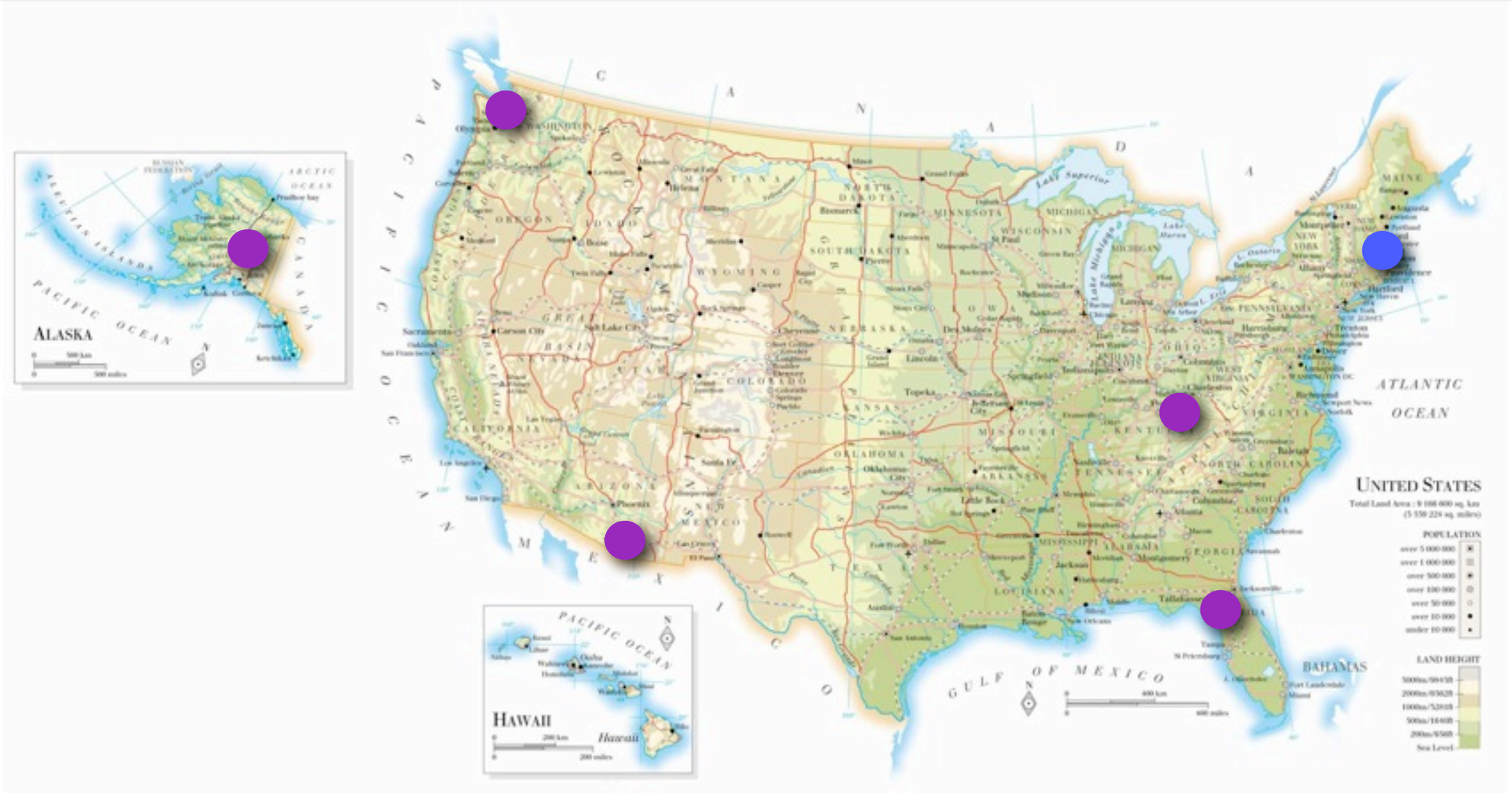
Now...and we need your advice on NSF funding to make this happen.



WWT Ambassadors: Phased Approach

Pilot ● *Boston Area*

Phase I candidates ● *Tucson, AZ; Seattle, WA; Appalachia; Gainesville, FL; Fairbanks, AK*



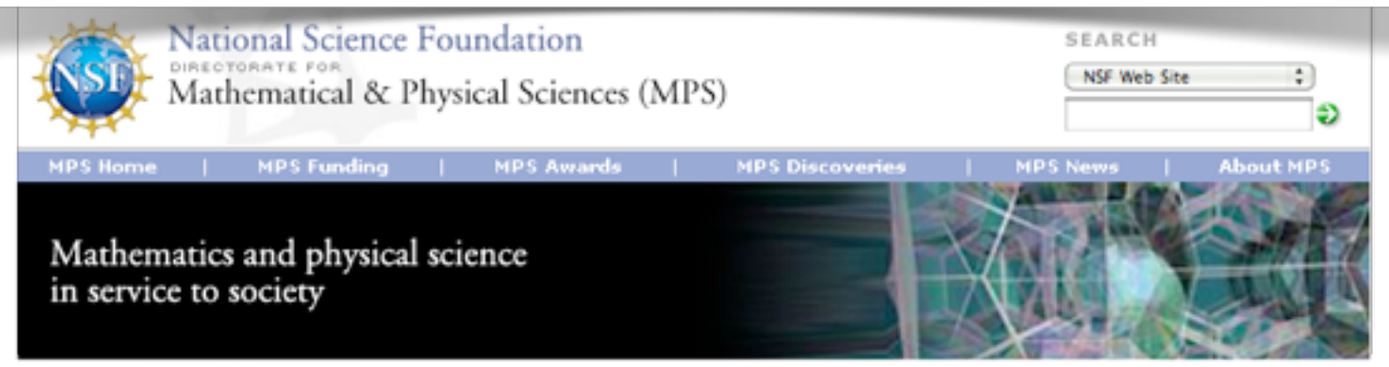
Phase II: US-wide; Phase III: International

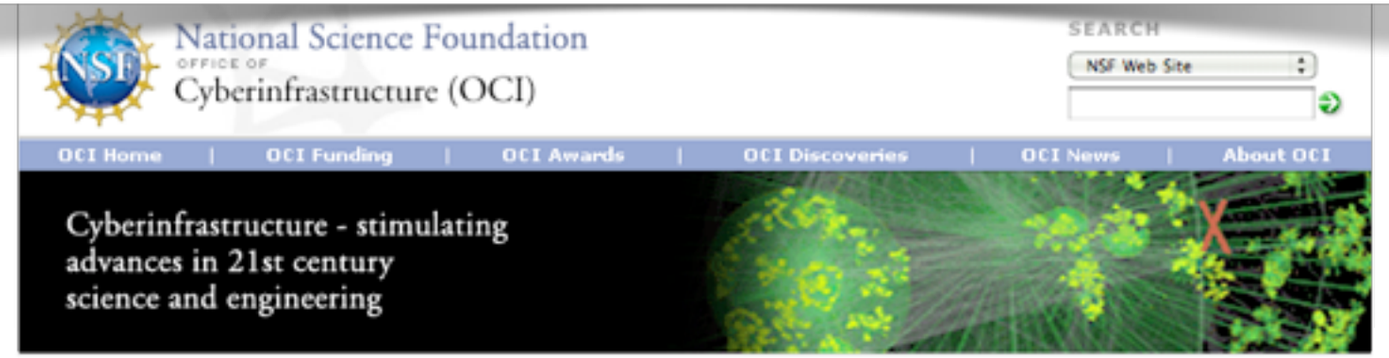
How best to work with NSF OCI, MPS/AST, EHR & CISE simultaneously?

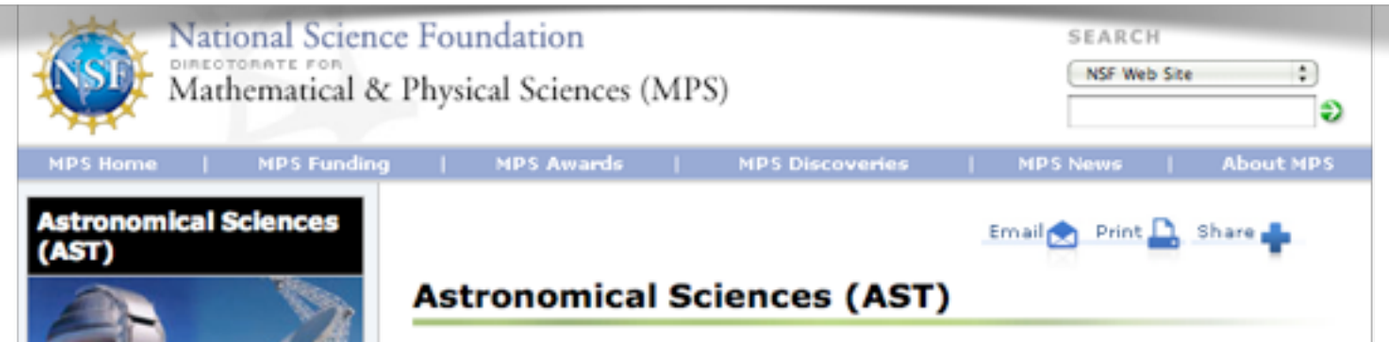
Proposals/Phases

- RAPID/EAGER?
- Unsolicited?
- Cyberlearning?
- Other?

We are ready-to-go in 2010 on Phase I. Phase II possible in 2011-12.







The Matrix

Tour: Dust & Us	Spatial Scale	Time	Gravity	Chemistry	Temperature
Planets					
Stars					
Galaxies					
Gas					
Exotica (Black Holes, etc.)					