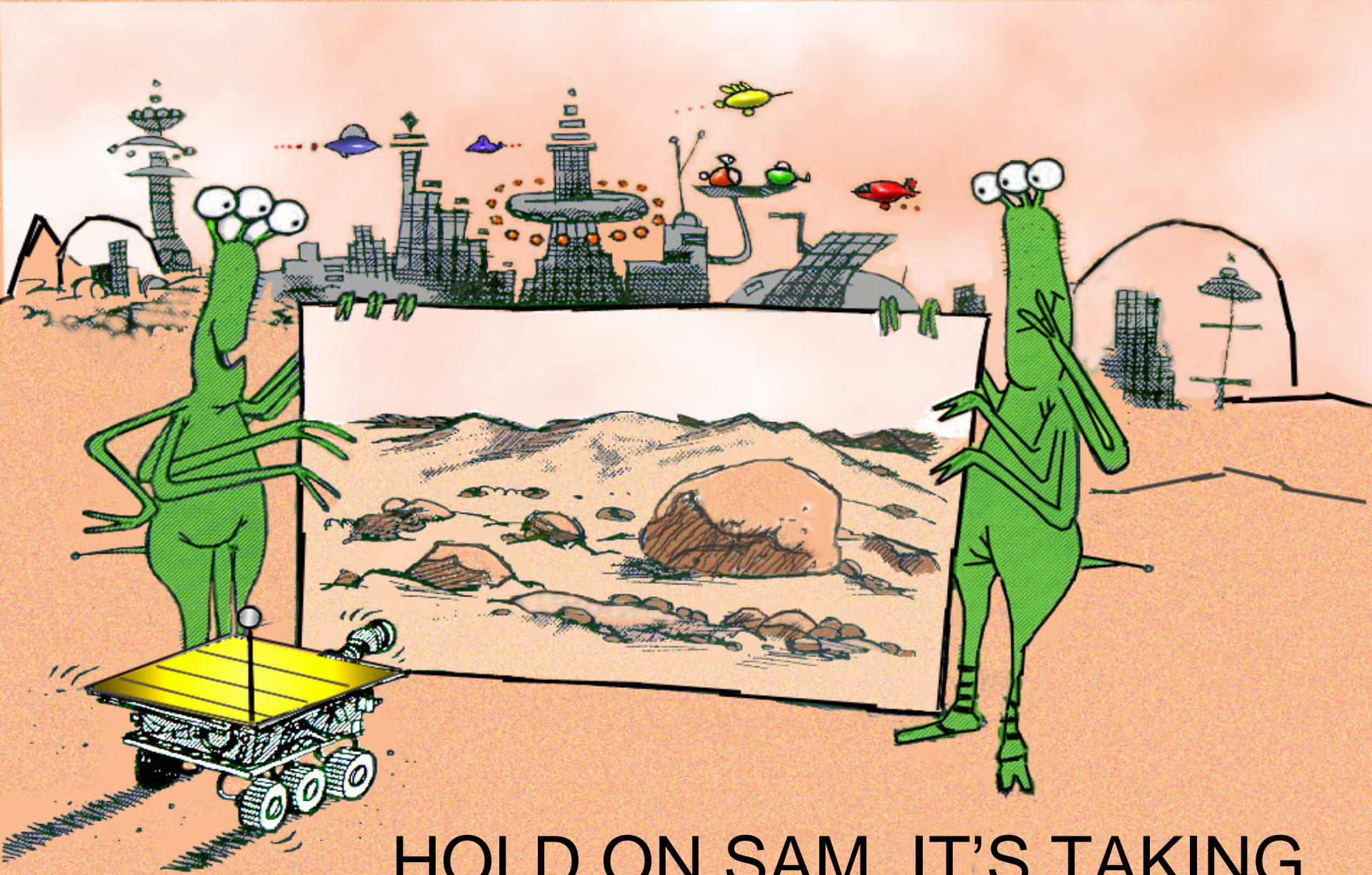


**Creating Virtual Labs to
Teach Middle School
Astronomy Principles:
The NASA Connect
Education Program Series**

Al Byers

David Halpin

Virginia Tech



...HOLD ON SAM, IT'S TAKING ANOTHER PICTURE...



Poll Audience

How many are:

- instructional designers
- Multimedia Developers
- Education: elementary, middle, high school, higher education



Goals of Session

- Provide example of authoring tool used to create interactive educational web environment
- How incorporate instructional design when working at a distance with clients unfamiliar with the ISD process



NASA CONNECT

The screenshot shows a Netscape browser window with the title "Netscape: NASA CONNECT - Atmospheric Detectives". The address bar contains the URL "http://edu.larc.nasa.gov/connect/detect.html". The browser's toolbar includes buttons for Back, Forward, Reload, Home, Search, Netscape, Images, Print, Security, Shop, and Stop. The website content features a blue header with the "NASA CONNECT" logo and navigation links: HOME, CURRENT SHOWS, REGISTER, AIR DATES, PAST SHOWS, and PARTNERS. The main heading is "The Measurement of All Things: Atmospheric Detectives". Below this, there are three sections: "Math Concepts" (Computation and Estimation, Measurement, Patterns, Tools), "Science Concepts" (Scientific Methodology, Earth Patterns, Earth/Space Systems), and "Technology Concepts" (Basic Operations, Technology Productivity Tools, Technology Research Tools). A "NASA Research" section lists "LIDAR, SAGE II, PICASSO-CENA". A paragraph of text describes the episode's focus on atmospheric science and the use of mathematics and remote sensing. A final paragraph mentions a collaborative activity where students will create an aerosol sampler. On the left side of the page, there are three small images: the top one shows the NASA logo and a rocket; the middle one shows a cartoon character (Woody) next to a globe; the bottom one shows a group of people in a laboratory setting.

Math Concepts: Computation and Estimation, Measurement, Patterns, Tools

Science Concepts: Scientific Methodology, Earth Patterns, Earth/Space Systems

Technology Concepts: Basic Operations, Technology Productivity Tools, Technology Research Tools

NASA Research: LIDAR, SAGE II, PICASSO-CENA

In this episode of NASA CONNECT, students are introduced to the study of atmospheric science. They will investigate how NASA scientists and researchers are using mathematics and remote sensing to measure the amount of aerosols in the atmosphere and how human activity affects these aerosols in the atmosphere.

To apply what they have learned, students will work collaboratively to make an aerosol sampler, a simple adhesive tool that allows students to estimate the amount of aerosols present in their community.



NASA CONNECT

- Award winning distance education program incorporating multi-mode of delivery and student engagement (Video, Web, Hands-on)
- Managed out of the NASA Langley Research Center, Hampton Virginia.
- Serves thousands of students each year



NASA CONNECT

- Targeted toward middle schools students in grades 5-8.
- Overarching goal of NASA CONNECT is to establish the “connection” between the mathematics, science, and technology concepts taught in the classroom and NASA research as tied to appropriate national standards.
- Monthly synchronous video program anchor



Back



Forward



Stop



Refresh



Home



AutoFill



Print



Mail



Address: @ http://connect.larc.nasa.gov/

> go

NASA CONNECT

EDUCATORS

PARENTS

INDEX

QUICK INDEX

2001-2002 SEASON

AIR TIMES

CONTACT US

FEEDBACK

CLASSROOM MENTOR

LESSON GUIDES

LIBRARY OF SHOWS

OTHER PROGRAMMING

PARTNERS

REGISTER

SATELLITE INFORMATION

VIEW CONNECT ON THE WEB



See 3LW on NASA CONNECT.
Starts airing Sept. 27



Co-hosts

E-mail Jennifer & Dan!

ACTIVITIES

Plane Weather

Airplane Design Workshop

Shapes of Flight

Rubberband Rocket

Space Memory Match

GET A NON-ENGLISH TRANSLATION OF THE TEXT ON THIS SITE!



Produced by the NASA LaRC Office of Education.



Meet Dan!

VISIT DAN'S DOMAIN AND CHECK OUT INSTRUCTIONAL TECHNOLOGY ACTIVITIES!

cool sites

for kids!

NASA kids' sites



NASA CONNECT

Video Examples

Utilize celebrities and scientists to introduce each program: [Weather](#)

Tie into national science standards and aligned to NASA Content: [Astronomy](#)



Reflections/Questions

- Difficulty of ISD process with clients
- Development Time
- Team/Skill set requirements
- Formative Evaluation