

Session 2.2:

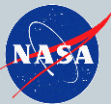
NEW! Aerosols and Sky Color GLOBE Elementary Storybook



NASA LANGLEY RESEARCH CENTER

January 11th, 2016, 01:45 PM - 02:00 PM

New Orleans Ernest N. Memorial Convention Center, Rm353



Sarah (Crecelius) McCrea
SSAI, NASA LaRC Education Outreach Coordinator
Sarah.mccrea@nasa.gov



About the GLOBE Program



The GLOBE Program

Students
collaborate
with scientists



Hands-on science



International
Program
in 112
countries



Atmosphere/Clima
te,
Hydrology, Soil,
Land
Cover/Biology,
Phenology



<http://www.globe.gov>



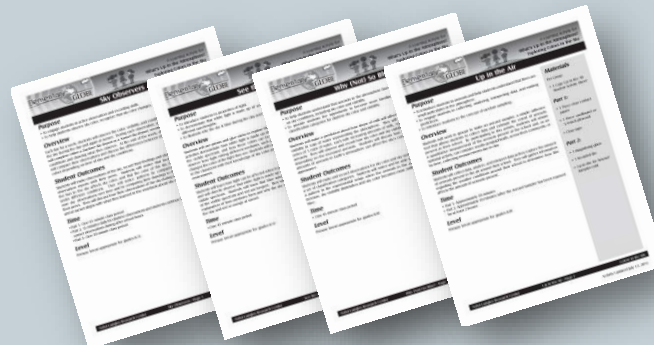
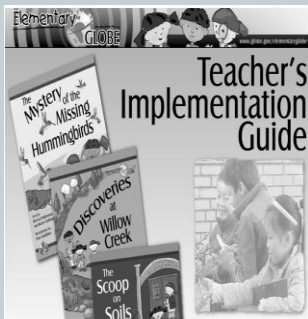
Over 22 million
environmental
measurements
reported

Elementary GLOBE



Resources

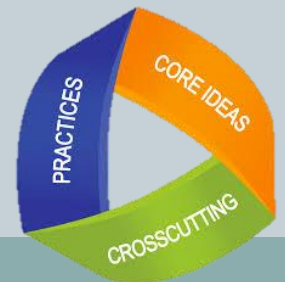
- Teacher Implementation Guide
- Storybooks
- Learning Activities
- All are *FREE* online – *View or Print*
- Professional Development



GLOBE Elementary Storybooks

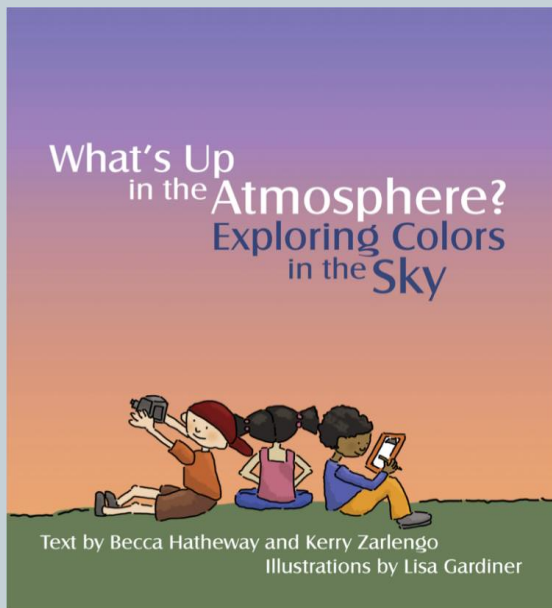


- **Science Inquiry & Science Literacy Skills**
 - Note details, compare and contrast, predict, sequence events, link cause and effect, distinguish fact from opinions, link words with precise meanings, make inferences, draw conclusions
- **Science and Engineering Practice Skills**
 - Ask questions, developing and using models, planning and carrying out investigations, analyzing and interpreting data, using mathematics and computational thinking, constructions explanations, engaging in argument from evidence, obtaining, evaluation and communication information



INTRODUCING, NEW!

What's Up in The Atmosphere? Exploring Coloring in the Sky



Engages students in active science practices (observation and data collection), bridging Elementary GLOBE to Formal GLOBE

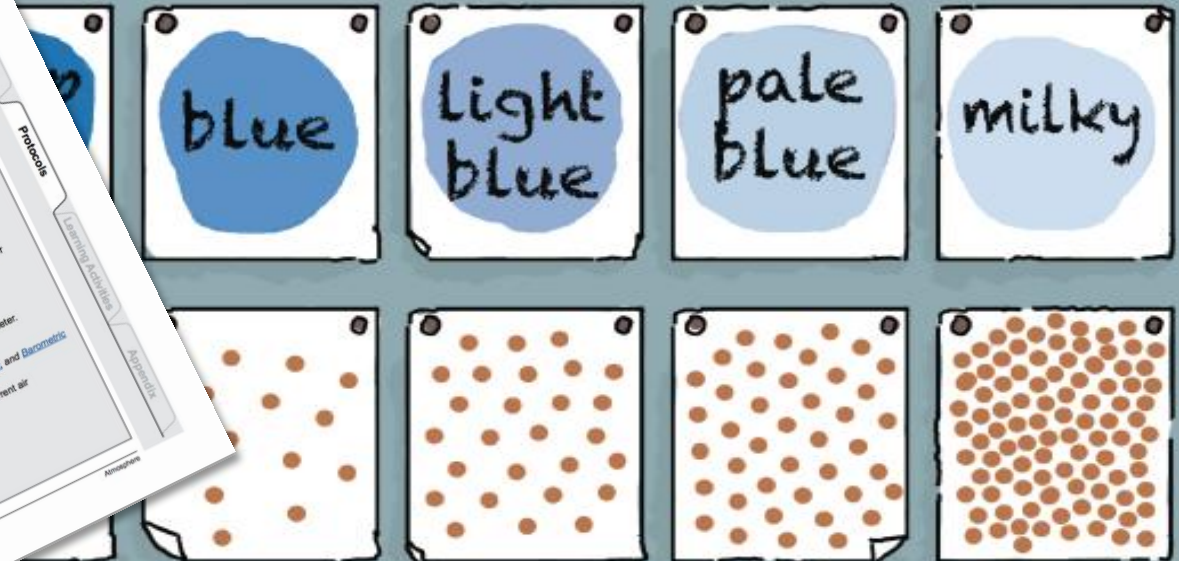
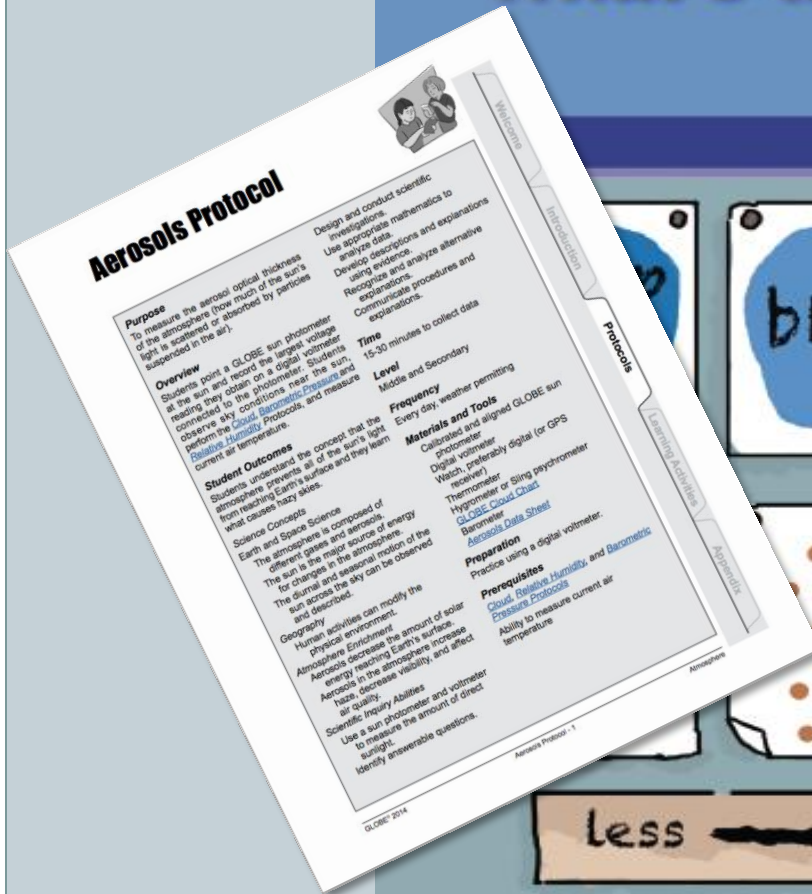
- Encourage students' curiosity about normal world
- Practice making observations
- Practice recoding observations
- Help better understand why we should study our atmosphere and the air we breath

INTRODUCING

What's Up in The Atmosphere? Exploring Coloring in the Sky



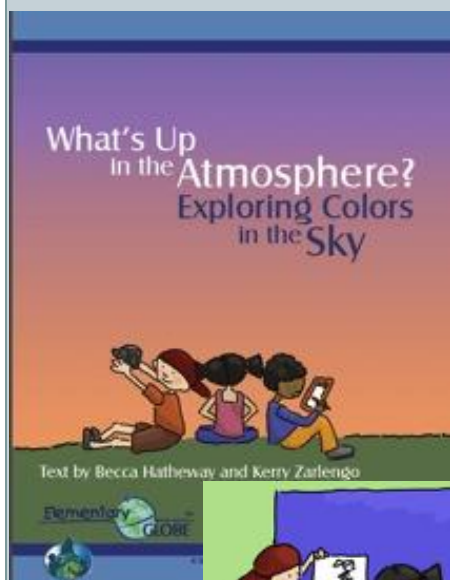
What's the Sky Look Like Where You're From?



less ————— AEROSOLS ————— more

INTRODUCING, *NEW!*

What's Up in The Atmosphere? Exploring Coloring in the Sky



Back on the set, Dennis was adjusting the lights and the camera. Anita and Simon took their places at the news desk.

"Good afternoon and welcome to our newscast," Anita began. "We're adding a new feature to this program. Simon is here to tell us all about it."

Aerosol - Learning Activities

Daytime Sky Report

Name: _____ Date: _____ Time: _____ AM/PM _____ Location: _____

Are there clouds?

- ☐ no clouds
- ☒ some clouds
- ☐ lots of clouds
- ☐ fog

Is there precipitation?

- ☒ none
- ☐ rain
- ☐ sleet
- ☐ snow

Is there wind?

- ☒ gentle wind
- ☐ strong wind
- ☐ no wind

Note: If there are lots of clouds, then this is not a good day to make a sky color report. Try again tomorrow!

A drawing of my sky:

The deepest color I see:

- ☐ deep blue
- ☐ blue
- ☒ light blue
- ☐ pale blue
- ☐ milky
- ☐ other _____

Visibility:

- ☐ very clear
- ☐ clear
- ☒ somewhat hazy
- ☐ very hazy
- ☐ extremely hazy

Sky Observers: Make and report sky observations and share data.



Why (Not) So Blue: Explore sky conditions, color and visibility.

Aerosol - Learning Activities



See the Light: Use prisms and glue sticks to explore the properties of light.

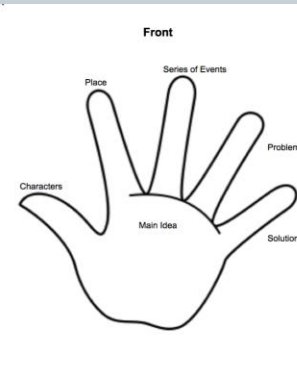
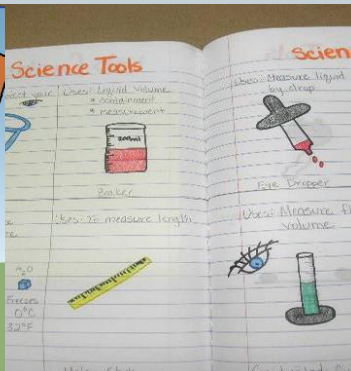


Up in the Air: Investigating extent of aerosols in a location.

Implementation Strategies

- Inquiry Skills Check List
- Journals/Science Notebooks
- Reading Comprehension - Five Finger Retell
- Vocabulary Development – Word Wall
- Real Life Connections

- | | |
|--|----------------------------------|
| ☐ Observing | Looking/watching things with |
| ☐ Questioning | Formulating questions based |
| ☐ Sequencing | Putting something in a certain |
| ☐ Patterning | Forming and following a set p |
| ☐ Counting | Understanding quantity, one-tr |
| ☐ Measuring | Using standard and nonstanda |
| ☐ Comparing | Noting differences and similar |
| ☐ Classifying | Putting things into definite cat |
| ☐ Defining | Developing and enhancing voi |
| ☐ Communicating | Describing and sharing inform |
| ☐ Hypothesizing | Making an informed guess |
| ☐ Predicting | Thinking ahead about what m |
| ☐ Inferring | Using reasoning to draw concl |
| ☐ Recording | Writing or drawing gathered in |
| ☐ Reporting | Using information and commu |



Resources Available on GLOBE



- Find resources online at www.globe.gov
- “Do GLOBE” – top navigation
 - Formal GLOBE Teachers Guide
 - Campaigns
 - Resources
 - Etc...
- “Elementary GLOBE” – drop down menu
 - Overview
 - Resources Links
- “Aerosols” – left navigation
 - Storybook
 - Related Learning Activities

Resources Available at NASA



- <http://science-edu.larc.nasa.gov/skycolor>
 - Observation sheets
 - More activities
 - Aerosol Storybook
 - SAGE III on ISS
 - CALIPSO
- Can access the Web story and Video from here



Thank You!



Contact Us...

- Sarah McCrea, *GLOBE Trainer*
 - Sarah.mccrea@nasa.gov
- Jessica Taylor, *NASA LaRC GLOBE Partner*
 - Jessica.e.taylor@nasa.gov
- NASA Langley Partnership
Webpage <http://www.globe.gov/web/nasa-langley-research-center/overview>

