



GLOBE Resources for 2025 Library Summer Reading Programming

This guide provides ready-to-use library program plans featuring GLOBE Program activities and data collection opportunities that align with the 2025 Collaborative Summer Library Program theme “[Color Our World.](#)”

The GLOBE Program

The [GLOBE Program](#) is an international science and education program sponsored by NASA and supported by National Oceanic and Atmospheric Administration (NOAA), the National Science Foundation (NSF), and the U.S. Department of State. The program gives K–16 students and the public a way to meaningfully contribute to an understanding of the Earth system through place-based, authentic research.

Download the GLOBE Observer App

GLOBE’s citizen science app, [GLOBE Observer](#), allows volunteers to make environmental observations that complement NASA satellite observations. The app guides you through the observation process for tree height, clouds, mosquito habitats, and land cover data collection. Create a free account to get started!

Acknowledgements

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Children's Programming

Children's Storytime: Clouds

Materials Needed:

- Make a cloud felt board (create ahead):
 - Large blue felt board
 - White and grey felt cut into cloud shapes (white wispy cirrus, white puffy cumulus, and flat grey stratus)
- Cloud painting (per patron):
 - Blue construction paper
 - White paint
 - Clothes pin
 - Pompom or sponge
- Coloring pages to take home:
 - [Clouds Coloring Page](#) from Elementary GLOBE
 - [Sky Coloring Page](#) from Elementary GLOBE

Program Plan:

1. Read *When Cloud Became a Cloud* by Rob Hodgson (2021).
2. Do the [Cloud dance](#) to learn the three main types of clouds.
3. Read *Cloud Dance* by Thomas Locker (2000).
4. Make a felt board cloudscape. Each child gets a cloud to add to the cloudscape. Cirrus clouds are high in the sky, cumulus and stratus clouds are low. All together: count each type of cloud on the felt board.
5. Read *Little Cloud* by Eric Carle (1998).
6. Make sponge paint clouds. Clip a sponge or pompom onto a clothes pin. Use this as a tool to sponge white paint onto the blue paper. What type of cloud will you make: cirrus, stratus, or cumulus?

Children's Storytime: Seasons and Colors

Materials Needed:

- For the color walk:
 - Printed Elementary GLOBE [Color of the Seasons](#) activity sheet with the labeled small color boxes colored in
 - Pencils or crayons
 - Clipboards
- For season voting:
 - Felt board, colored felt shapes, and season labels *OR*
 - Poster paper labeled with the four seasons and colored markers
- For the art activity:
 - Printed pages from [Seasons Greenings](#) activity with the legend colored in
 - Cotton-tipped swabs
 - Dark green, light green, tan/brown, and blue paint

Program Plan:

1. Read *Summer Colors* by Diana Murray (2018).
2. Go outside for a color walk to record the colors that can be seen in the summer season. Each child gets a Color of the Seasons activity sheet on a clipboard to record how many things they see of each color on the walk.
3. Come inside to read *Green on Green* by Dianne White (2020).
4. Vote on your favorite season! Using a felt board or poster board, each child gets to add a colored mark or dot next to the name of their favorite season.
5. Art Activity: Use the [Seasons Greenings](#) activity from NOAA to make paint-by-number maps of plant growth in different seasons.
6. Need a movement break? Try using egg shakers or scarves with [The Seasons Song](#) by Super Simple Songs.

Elementary Club: Cloud Day

Materials needed:

- For Cloud observations print:
 - [GLOBE Cloud Identification Chart](#) (PDF) OR
 - [GLOBE Sky Window](#) (PDF)
- For the Cloudscape:
 - Large length of blue paper or poster board (if doing individually, blue construction paper)
 - Glue
 - Scissors
 - Cloud materials (i.e. cotton balls, white felt, white fabric, white batting)
 - White, grey and black markers
 - Yellow, white, and blue pipe cleaners
- Coloring pages to take home:
 - [Clouds Coloring Page](#) from Elementary GLOBE.
 - [Sky Coloring Page](#) from Elementary GLOBE

Do ahead:

- Download the [GLOBE Observer app](#) and make a free account. Practice using the Clouds tool to make a cloud observation.

Program Plan (1.5 hours):

1. Read the Elementary GLOBE Storybook [Do You Know That Clouds Have Names?](#) (eBook available, 20 minutes)
2. Go outside to observe the sky and report the cloud types that are visible. The program lead can use the [GLOBE Observer app](#) to enter data for the group. The app has built in training and a “cloud wizard” to help make observations. (20 minutes)
3. Come inside to make a [Cloudscape](#). Construct an artistic sky scene showing the different cloud types. This can be done as a group or individually. (45 minutes)
4. End with the [Cloud dance](#)! Follow along with NASA scientist Marilé Colón Robles and her two daughters as they do the cloud dance to learn the three main cloud types. (5 minutes)

Elementary Club: Tell a Tree Cookie Story

Materials Needed:

- Tree “cookies” (branches or small logs cut into slices)
- Paper
- Colored pencils

Program Plan:

1. Read *Rise to the Sky: How the World's Tallest Trees Grow Up* by Rebecca E. Hirsch (2023).
2. The full activity plan can be found in the GLOBE Observer [Stories Trees Tell](#) activity. See the activity in action on [Camp Discovery's YouTube video](#). Briefly:
 - a. Pass out tree cookies and discuss how tree rings help us understand a tree's age along with trauma and environmental events it has encountered over the course of its lifetime.
 - b. Each child will then draw a “tree cookie” that tells their own story.
 - c. Share your tree cookie stories with the group!

Elementary Club: What's Under Your Feet?

NH Libraries: Reserve the [Soil Tent](#) to visit your library for this activity!

Materials:

- For the soil activity
 - Magnifying glasses
 - Rulers
 - *If outside:* Trowels, spoons or other soil digging tools
 - *If inside:* Containers with pre-dug soil
 - Colored pencils
 - Printed copies of the Elementary GLOBE [Soil Treasure Hunt Activity Sheet](#)
- For the soil mural:
 - Different colored construction paper
 - Large poster board paper (for a group project) or 8.5x11 black construction paper (for individual projects)
 - Glue sticks

Program Plan:

1. Read GLOBE Elementary Storybook [The Scoop on Soils](#) (eBook available).
2. Give each child an activity sheet. If inside with pre-dug soils, let children explore what is in their container of soil and record it on their activity sheet. If outside, lead them to their study location and let them dig in the soil and record what they find.
3. Come together and discuss what they observed.
4. Describe how they are going to create a soil mosaic showing what they found in the soil or learned from the book. Children will tear off small pieces of construction paper and glue it to the poster board to create a soil landscape. (See image below from GLOBE Partner Jodi Haney, Xcite Learning).



Teen Programming

Trees and Kindness Rocks

Materials needed:

- Smooth rocks
- Acrylic paint markers
- Clear sealer to protect the art from the weather

Do ahead:

- Download the [GLOBE Observer app](#) and make a free account. Practice using the Tree Height tool to measure tree height.

Program Plan:

The full plan can be found in the [Kindness Rocks and Tree Height activity](#) from the LaSalle Public Library. Briefly:

1. Go outside and use the [GLOBE Observer app](#) to measure tree height.
 - a. The Trees tool will guide you through the observation process. Steps include selecting a tree, using your device to measure the angle from the bottom to the top of the tree, walking to the tree and counting your steps, and reporting on surface conditions.
2. Create a kindness rock with a picture of your tree and its measurements.
3. Leave your rock at the base of your tree to inspire others!
4. Watch librarian Brittany Blomquist explain the activity in this [YouTube video](#).
(This activity was developed for a 2021 event but is an evergreen activity!)
5. Need a read aloud? Try *Rise to the Sky: How the World's Tallest Trees Grow Up* by Rebecca E. Hirsch (2023).

Water Cycle Beading

Materials needed:

- For water cycle beading:
 - Print out of the [Water Wonders station pages](#), cut along the dotted lines to make 7 station instruction cards
 - Seven different colors of beads
 - Pipe cleaners
 - Dice

Do ahead:

- Set up each station instruction card around a room or around a large table.
- At each station, add a cup with colored beads, one color per station.
- Place a few dice at each station.

Program Plan:

1. Read *Water is Water* by Miranda Paul (2015) for an introduction on the water cycle.
2. Give each teen a pipe cleaner. Explain that they are going to make water cycle bracelets by imagining they are each a water droplet moving through the water cycle. Each teen starts at one of the stations and rolls the die. Follow the instructions on the card to see where your water droplet goes next. For each station you visit, pick up a colored bead and add it to your bracelet.
3. Optional add on: [Earth's Water: A Drop in a Bucket](#) activity from California Academy of Science (materials listed in the activity).
4. Take home: [NOAA coloring books and pages](#).

Intergenerational Programming

Clouds Family Program

See the step-by-step instructions and materials list for a [Clouds family program](#) from the Los Angeles Public Library. Briefly:

1. Introduce the program and help participants set up a GLOBE Observer account.
2. Do the [Cloud in a Jar](#) activity.
3. Go outside for a cloud observation using the [GLOBE Observer app](#).
4. Come back inside to make [Cloud Mobiles](#).

Clouds and Cloudscape Intergenerational Program

See the step-by-step instructions and a materials list for a [Cloudscape program and adaptations](#) from STARnet libraries. Briefly:

1. Lead participants to an outdoor viewing space and collaboratively make a cloud observation using the [GLOBE Observer app](#).
2. Come back inside and invite participants to create their own Cloudscape art project.

Library Weather Calendar

[Create a weather calendar](#) in an easy to view place in the library. Use legos described in this activity, or purchase weather stickers to add to a chart, and each day add a block or sticker that best represents the weather for that day. Tally how many days of sun, clouds, rain, etc. happen each month.

Early Literacy Programming

Storytime: Clouds and Sky

Materials Needed:

- Make a cloud felt board (create ahead):
 - Large blue felt board
 - White and grey felt cut into cloud shapes (white wispy cirrus, white puffy cumulus, and flat grey stratus)

Program Plan:

1. Read *It Looked Like Spilt Milk* by Charles Green Shaw (2014).
2. Sing “The Clouds are Passing By” to the tune of “The Farmer in the Dell” by Jean Warren:

The clouds are passing by,
The clouds are passing by,
Heigh-ho, just watch them go,
The clouds are passing by.

The clouds are passing by,
Way up in the sky,
Sometimes fast, sometimes slow,
The clouds are passing by.

3. Read *Raindrop, Plop!* by Wendy Cheyette Lewison (2004).
4. Say the Cloud poem:

It is hot.
The sky is blue.
A little cloud comes looking for you.
More clouds come.
They bring rain.
Sing and dance.
It’s cool again!

5. Make a felt board cloudscape. Each child gets a cloud to add to the cloudscape. Count the clouds on the felt board.
6. Say the Five Little Clouds poem:

Five little clouds up in the sky,
Drifting, floating way up high,

One disappeared from the sky so blue,
When a big gust of wind came blowing through. (*Everyone make blowing
wind sounds*)
Four little clouds...
Three little clouds...

7. Read *Paint with Ploof* by Ben Clanton and Andy Chou Musser (2024).

Picture Book Reading Lists by Topic

Tip: Search for books written by local authors for content more relevant and relatable to your local community.

Clouds and Sky

- Elementary GLOBE Storybook [Do You Know That Clouds Have Names.](#)
- Elementary GLOBE Storybook [What's Up in the Atmosphere? Exploring Colors in the Sky.](#)
- Carle, Eric. *Little Cloud*. Penguin Young Readers Group, 1998.
- Day, John A. *The Book of Clouds*. Sterling Publishing Co, 2006.
- Hansen, Grace. *Clouds*. Abdo Kids, 2016.
- Hodgson, Rob. *When Cloud Became a Cloud*. 2021.
- [Cloud Picture Books Reading List](#) on WorldCat from the GLOBE Observer Team.
- [Cloud Adult Reading List](#) on WorldCat from the GLOBE Observer Team.

Trees

- Hirsch, Rebecca E. *Rise to the Sky: How the World's Tallest Trees Grow Up*. 2023.
- Matheson, Christie. *Tap the Magic Tree*. HarperCollins, 2013.
- Gianferrari, Maria. *Be A Tree*. 2021
- Hickman, Pamela. *A Tree is a Home*. 2021.
- Smithers, Anna. *Tree Full of Wonder*. 2021

Seasons

- Elementary GLOBE Storybook [The Mystery of the Missing Hummingbirds.](#)
- White, Dianne. *Green on Green*. 2020.
- Pak, Kennard. *Goodbye Spring, Hello Summer*. Expected May 2025.
- Murray, Diana. *Summer Colors*. 2018.
- Posada, Mia. *Summer Green to Autumn Gold: Uncovering Leaves' Hidden Colors*. 2019.

Soils

- GLOBE Elementary Storybook [The Scoop on Soils.](#)
- Gillain, Charlotte and Zoomer, Yuval. *The Street Beneath My Feet*. 2017.
- Doerrfeld, Cori. *Beneath*. 2023.
- Barnard Booth, Leslie. *A Stone is a Story*. 2023.

- Stroud, Jackie. *Under Your Feet: Soil, Sand, and Everything Underground*. 2020.
- Harrison, David L. *The Dirt Book: Poems about Animals that Live Beneath Our Feet*. 2021.
- Messner, Kate. *Up in the Garden and Down in the Dirt*. 2015.
- Martinez, Michael. *Composting for Community*. 2023.

Water

- Elementary GLOBE Storybook: [Discoveries at Willow Creek](#).
- Allen, Judy. *Are You a Dragonfly?* 2001.
- Keats Curtis, Jennifer and Stroud Water Research Center. *Creek Critters*. 2020.
- Sidman, Joyce. *Song of the Water Boatman and Other Pond Poems*. 2005.
- Peelen, Lori. *I Am the Elwha*. 2020.
- Paul, Miranda. *Water is Water*. 2015

Further Activities by Topic

Clouds and Sky

- [Make a Sky Report](#): Engage patrons in active observation, recording, and drawing skills.
- [My NASA Data Explore Sky Color and Visibility](#): Explore the effect of aerosols on sky color and visibility by using an interactive virtual model.

Trees

- [Tree Health Check Up](#): Just like people can be healthy or sick, so can trees! This activity guides you through looking for some of these indicators in a tree near you.
- [Take a look at leaves and make leaf rubbings](#) with this Project Learning Tree activity.

Soil

- [Soil Treasure Hunt](#): Learn about things naturally found in soil. This can be done inside or outside!
- [Make soil paint](#): Dry and crush soil and mix it into paint to create soil art!

Other Resources

- **Opportunities for New Hampshire libraries only**: Reserve the [Soil or Water Tent](#) for an interactive STEAM program.
 - Other libraries: Learn how to [develop your own Tent](#).
- [GLOBE Observer Library Toolkit](#): Interested in getting your library involved in citizen science? Check out this toolkit!
- [Earth System Play](#): Brainstorm, write, create, and produce a play in which characters represent how all the components of the Earth system are interconnected.