

# GLOBE Observer: Clouds & Cloudscape

Intended for audiences 8 and up

## Modification and Preparation List

**Adapt this NASA activity for your needs!**

### Outdoor Library or Outreach Program

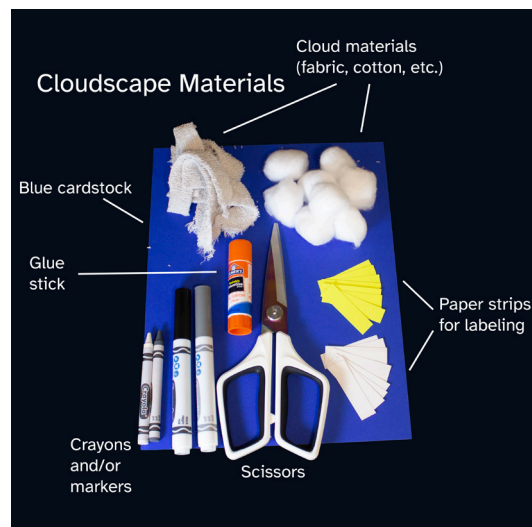
#### Materials for GLOBE Observer Citizen Science Program

- Smart Phone or Tablet with [GLOBE Observer App](#)
- [Clouds Quick Facts sheet](#)
- [Sky Window \(Spanish Version of Sky Window\)](#)
- [Cloud Identification Chart \(Spanish Version of Cloud Identification Chart\)](#)
- Outdoor clothing depending on the weather, such as hiking shoes, rain jacket, sunglasses, and warm clothing



#### Materials for Cloudscape art activity:

- Blue poster board or butcher paper (*if creating one large mural per group*) OR blue cardstock paper (*one per patron, if doing individual cloudscape*)
- Yellow and/or white strips of paper (*big enough to write labels for clouds*)
- Crayons or markers (*especially washable black and gray markers*)
- Glue sticks
- Scissors



#### Materials for creating clouds, including:

- Cotton balls
- Wax paper
- Torn white sheets
- Sheer white fabric

# Outdoor Library or Outreach Program (*continued*)

## Facility needs:

- Safe outdoor space with few obstructions for viewing clouds

## Preparation:

### *1-3 months prior to program:*

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- [Download the GLOBE Observer app on a smartphone or tablet](#)
- Use the app to check for upcoming satellite flyover times by pressing the satellite icon within the Clouds module. Schedule your program during one of the satellite flyover times.
- Prepare and distribute [promotional materials for the activity](#), including flyers, posters, library website, online event calendar, and social media posts. Be sure to emphasize this will be an outdoor activity, so patrons should dress appropriately.
- [Review Fundamental Science Concepts STAR Net Blog Post](#) and [GLOBE Observer: Clouds webpage](#)

### *Day of program:*

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- Check the weather forecast and bring additional weather gear if necessary (*extra raincoats, umbrellas, etc.*).
- Print and laminate copies of the Clouds Quick Fact sheet, Sky Window, and Cloud Identification Chart.
- Set up a table with the art supplies for the Cloudscape activity (*indoors if there is inclement weather*).
- Gather participants together and lead them to your outdoor viewing space. Open the app on your smartphone or tablet (*tablet would be best for larger groups*) and select the Clouds module.
- Ask for volunteers to complete each step on the app so that everyone gets a chance to contribute to the observation. Have the Cloud ID Chart and Sky Window on hand to aid in their observations.
- After the observations have been made, invite participants to create their own Cloudscape art project by using the supplies on the table. Encourage them to use the Cloud Identification Chart as a reference when creating their cloudscape.
- Consider showing this [NASA Goddard Video: Anatomy of a Raindrop](#) while patrons create their artwork.

## Additional Suggestions for a Quick Start Program:

1. Focus on the 3 main cloud types: Cumulus, Cirrus, Stratus ([see page two on Cloudscape](#) for descriptions or the [:30 second mark in the Do You Know that Clouds Have Names? video](#))
2. Have patrons describe the difference between the clouds using all or one of the following: art, dance/ movement, and poetry. Encourage sharing with each other.
3. Then, have them start on a cloud journal as described in the video above and on [see page four on Cloudscape](#). [Show the video at 3:16, where Madison, Marile's daughter, demos how to do a cloud journal](#). Also, feel free to put the video on social media – as a #NASAatHome video it's family-friendly and meant to help caregivers create lessons for their kids.
4. Cloud Poetry is another way to engage patrons. Invite them to describe clouds, what clouds do, and how does the cloud make them feel. Drawing cloud scenes can accompany the poetry (*grab some cotton balls and glue to make puffy clouds*).

## Take & Make

### Material list (per kit):

- [Clouds Postcard](#)
- [Sky Window \(Spanish Version of Sky Window\)](#)
- [Cloud Identification Chart \(Spanish Version of Cloud Identification Chart\)](#)
- Medium or large Ziplock bag
- Glue Stick
- Washable markers
- Yellow and/or white strips of paper (big enough to write labels for clouds)
- [Patron Instructions \(Spanish Patron Instructions\)](#)
- Clear container or bag
- Art materials (1-3 pieces of each):
  - Blue cardstock paper
  - Cotton balls
  - Wax paper
  - Torn white sheets
  - Sheer white fabric



## Take & Make (*continued*)

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### Preparation (*per kit*):

- Print the Postcard, Sky Window, and Cloud Identification Chart on cardstock, or on printer paper and laminate them.
- Print the Patron Instructions.
- Assemble art materials in Ziplock bag.
- Put all materials in a clear container or bag to hand out to patrons.

## Virtual Program:

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### Materials:

*In addition to the above materials, you will need:*

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- Computer and Internet access
- Web camera
- Microphone

### Preparation:

*1-2 months prior to program:*

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- Set up a registration link for the program using an online platform such as Zoom, GoTo Meetings, or Facebook Live.
- Promote program on social media, library website, event calendar, etc.
- Watch the NASA@ My Library STEAM Strategies: Virtual Programs video.
- Review [Fundamental Science Concepts STAR Net Blog Post](#) and [GLOBE Observer: Clouds webpage](#)

*Day of program*

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- Set up and test your computer, camera, and microphone.
- Log in to your online platform account and open the meeting at least 15 minutes before the start of the program.
- At the start of the program, welcome everyone and invite them to introduce themselves in the chat or unmute themselves to talk.
- Share your screen and play the video GLOBE Observer Clouds: Getting Started

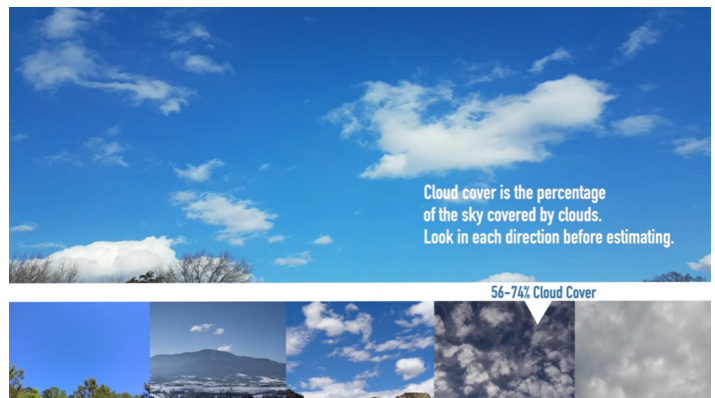


Image Credit: GLOBE Observer

# Virtual Program (*continued*)

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## *Day of program (continued)*

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- Share these links in the chat so patrons can access the following documents:
  - [Clouds Quick Facts sheet](#)
  - [Sky Window \(Spanish Version of Sky Window\)](#)
  - [Cloud Identification Chart \(Spanish Version of Cloud Identification Chart\)](#)
- Encourage your patrons to try the app at home with their families and share their results on the library's social media pages. Use the remaining time for a Q&A session.