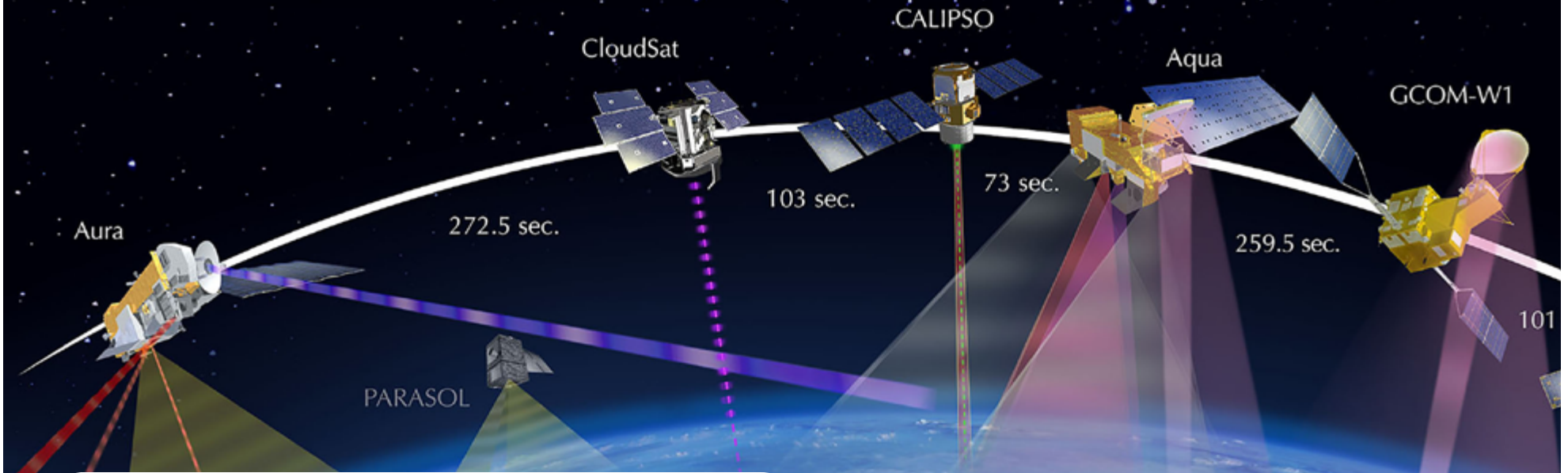
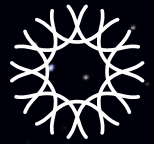


# 5: CONNECT TO NASA



## Materials

### A

- [Cloud Quiz Show scorecard](#)
- [Cloud Identification cards](#)
- [Which Cloud Am I? grids](#)
- [Sky Survey charts](#)
- [Sky Survey stickers](#)
- [Sky Color strips](#)
- [Cloud Cover grids](#)

### Loose Items

- SAC notebooks



## Preparation

- Load videos: [Cloud Names](#) and [How to Do a Sky Survey](#)
- Download the [GLOBE Observer](#) app on your digital device and sign into your club's account.


# Your mission is to collect data about clouds to help NASA conduct Earth science research.

## Cloud Quiz Show

15 min. | inside

Learning cloud names takes practice. Knowing the meaning of those names can offer clues about how clouds look. For example, **cirrus** clouds are wispy and **stratus** clouds form in layers, so when you hear the name **cirrostratus**, you can expect to see a wispy layer of clouds. In this game show, teams will compete to identify cloud names.

Start by watching the [Cloud Names](#) video. As you watch, practice saying the name of each cloud out loud. See the sidebar for a full list of names. Now you're ready to play.

 [Cloud Names](#)



1. Choose one player to be the scorekeeper. Give her or him the *Cloud Quiz Show* scorecard.
2. Divide into teams of four to five players.
3. To begin, say, "Name a cloud that begins with..." and insert one of the starting sounds. See sidebar for the list of five starting sounds.
4. Team members must huddle to choose a cloud name that begins with that sound. The first team to raise their hands and make a buzzer sound gets a chance to respond.
5. Identify that team and say, "And the cloud is...."
6. The team then calls out the name in unison.
7. The scorekeeper checks if the name is correct and keeps score.

### Names of Clouds

- Cirrus
- Cirrostratus
- Cirrocumulus
- Cumulus
- Cumulonimbus
- Stratus
- Stratocumulus
- Altostratus
- Altocumulus
- Nimbostratus

### Starting sounds:

- Alto-
- Cirr-
- Cumul-
- Nimbo-
- Strat-

Award two points for the first correct answer. If the first answer is incorrect, or if there are additional correct cloud names, the team to the left gets a turn to respond. Each additional correct answer is worth one point.

Teams take turns responding until all valid clouds are named. Repeat steps 3-7 for each of the five starting sounds.

Play for six minutes or complete all five rounds.

**Bonus round:** Each team has 30 seconds to write down as many cloud names as possible. The team with the most correct cloud names gets five bonus points. Spelling is not important.

Share out: Why do you think scientists have multiple names for clouds? What strategies did you use to help you remember clouds names?



20 min. | inside

## Which Cloud Am I?

In this game, one person will use clues to figure out which *Cloud Identification* card their partner is holding.

1. Create teams of two. Determine who will guess and who will respond first. The Guesser needs a *Which Cloud am I?* grid and the Responder needs one *Cloud Identification* card.
2. Responders use a book or folder to hide the *Cloud Identification* card from the Guesser.
3. All of the clouds are on the grid, so Guessers ask yes or no questions to determine which one their partner has. Focus on characteristics of the cloud itself rather than other parts of the picture.
4. Once a card is guessed, switch roles and pick a new *Cloud Identification* card. Use details when describing color, shape, texture, or position in the sky.

Share out: Which clouds look the most similar to you? How can you tell them apart?

25 min. | outside

## Sky Survey

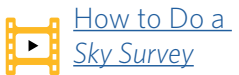
Through GLOBE Observer, citizen scientists like you help NASA understand how clouds affect weather and climate. By observing the sky and reporting what you see, you can help confirm or clarify valuable data from NASA satellite photos.

Watch the [How to Do a Sky Survey](#) video to learn how it works.

1. Form teams of four. Each team needs the following *Sky Survey* tools:
  - *Sky Survey* sticker (this goes in the recorder's notebook)
  - *Sky Survey* chart
  - *Sky Color* strip
  - *Cloud Cover* grid
2. Record the location, time and date on the *Sky Survey* sticker. Then, head outside to observe the sky.
3. Use your *Sky Survey* tools to investigate the sky conditions. Record all of your observations in the *Sky Survey* sticker.
4. Discuss your observations and find points of agreement. If you disagree, use evidence to support your argument. Then, decide what to report to NASA. You will submit only one report per club each time you meet.
5. Use the [GLOBE Observer](#) mobile app to enter your club's report and take photos of the clouds.

### Visual opacity isn't an exact science.

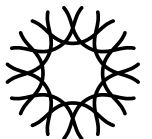
- **Transparent** = You can see the sun or object clearly through the cloud.
- **Opaque** = You can't see through the cloud.
- **Translucent** = Everything in between transparent and opaque.



[How to Do a Sky Survey](#)



[GLOBE Observer](#)



Congratulations! You've completed your first *Sky Survey* as a NASA citizen scientist.


Share out: What did you find challenging about observing the sky? What strategies would you recommend for next time?

**Explore more:** How do clouds affect climate? Watch [Cloudy Forecast](#) (1 min.) to learn how NASA is studying clouds and Earth's climate.

**Call to action:** Teach your friends the names of different clouds and help them identify clouds in your neighborhood.

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**Attendance & feedback:** How many youth attended? How did it go? Record notes here, then click or scan the link to let us know.

 **Explore more:**  
[Cloudy Forecast](#)



**How did it go?**  
[Let us know!](#)

