

# SUMMER 2023 NEWSLETTER



## Going back to school with NASA eClips!

The NASA eClips Educators remember the excitement of beginning a new school year from our many years in the classroom. The eClips team is here to support you and your learners throughout the year with engaging STEM resources.

### In this edition:

- **New NASA eClips Resources**
  - **Spotlite Design Challenge: Can Plants Dance?**
  - **Spotlite Design Challenge: Solar Eclipse Chasers**
- **Preparing for Upcoming Events**
  - **Annular Solar Eclipse**
  - **STEM Exploration Community Event**
- **Partner Resources**

Interact with NASA eClips on one of these platforms!



<https://nasaclips.arc.nasa.gov/>

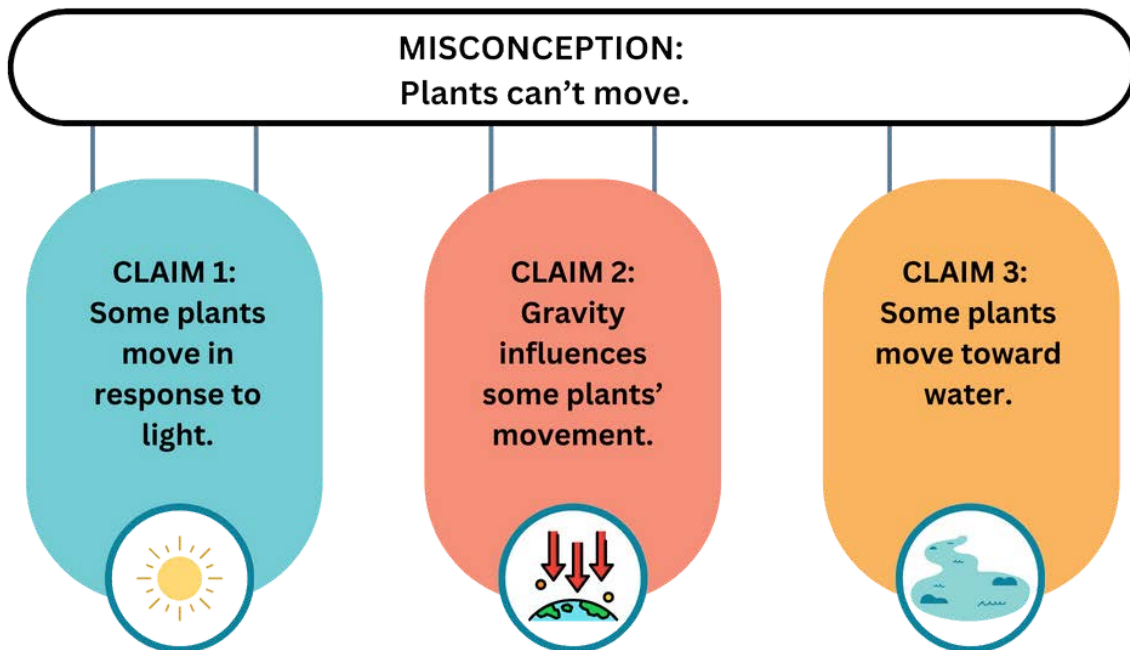
# NASA SPOTLITE DESIGN CHALLENGE



Science for students by students

## Can Plants Dance?

A common misconception about plants is that they don't move. While it is true that many plants are rooted in place and don't move from one location to another, they do have a way of responding to their environment and moving in their own way. As botanists, your challenge is to gather and share evidence to confront the misconception that plants can't move. Create a video that captures your questions and findings.



NASA Spotlite "Can Plants Dance?"

Interact with NASA eClips on one of these platforms!



# NASA SPOTLITE DESIGN CHALLENGE

**COMING SOON**

**NASA SPOTLITE**

Science for students by students

## Solar Eclipse Chasers

As NASA Solar Eclipse Chasers, you are challenged to gather and share evidence to confront misconceptions about solar eclipses. Solar eclipses occur when the Moon is between Earth and the Sun, and the Moon, Earth, and Sun are aligned in such a way that the Moon casts a shadow on Earth's surface.

**MISCONCEPTION 1:**  
Solar eclipses are rare.

**CLAIM:**  
A TOTAL solar eclipse is rare, but there are 2 to 4 solar eclipses each year.



**MISCONCEPTION 2:**  
All solar eclipses are the same.

**CLAIM:**  
There are four types of solar eclipses: total, partial, hybrid, and annular. The Moon's elliptical orbit determines the type of solar eclipse.



**MISCONCEPTION 3:**  
Solar eclipse glasses are the only way to experience a solar eclipse.

**CLAIM:**  
You can view a solar eclipse indirectly using a pinhole projector.



NASA Spotlite "All Solar Eclipses Are the Same"



Interact with NASA eClips on one of these platforms!



# PREPARE FOR UPCOMING EVENTS

SAVE THE DATE!

October 14 - Annular Solar Eclipse



## NASA eClips Guide Lites: Solar Images



In this activity, participants will create a picture of the sun that can then be examined with colored filters to simulate how specialized instruments enable scientists to capture images and view different features of the sun.

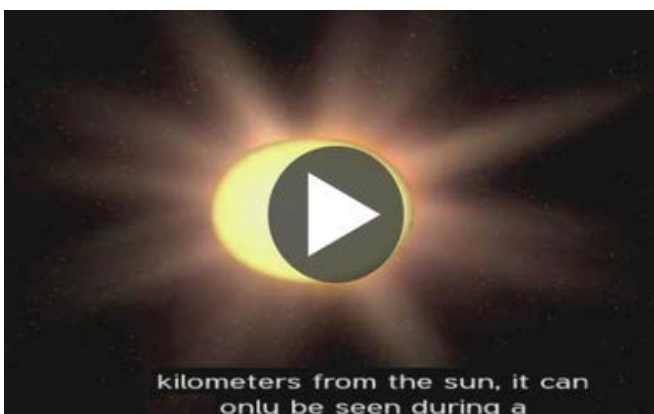


## NASA eClips *Our World* "Sun's Position"

Find out more about how our sun's position in the sky changes due to Earth's rotation, revolution and tilt. Learn from the experts -- Dr. Alex Young and Dr. Nicki Viall explain these connections so students understand patterns within the Earth-sun relationship.



## NASA eClips *Our World* "The Sun, A Real Star"



Learn about the important relationship between Earth and the sun. Find out about the layers of the sun and how Earth's magnetosphere acts like a giant handkerchief to protect us from all kinds of space weather.



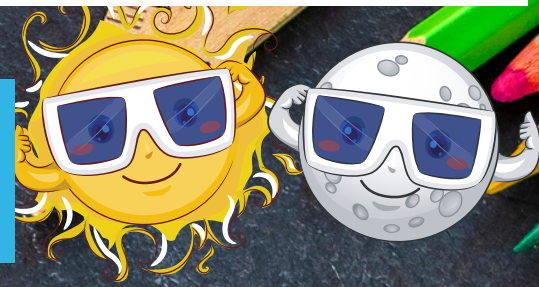
Interact with NASA eClips on one of these platforms!



# PREPARE FOR UPCOMING EVENTS

SAVE THE DATE!

October 14 - Annular Solar Eclipse



## NASA eClips Launchpad "Solar Eclipses"

Join NASA to learn more about solar eclipses, especially the awe-inspiring phenomenon of total eclipses. Find out about the unique geometry and the distances and sizes of the sun and moon as seen from Earth that allow us to witness the sun's corona or actually be in the path of totality.



## NASA Spotlite Lesson: Sun's Position



In this NASA eClips lesson, students investigate the sun's position when it rises and sets, and learn it does not set in the same position every day. Students learn new vocabulary using Frayer Models regarding the sun's position.

## Sun's Position

[CLICK HERE](#)



## NASA 2023 and 2024 Solar Eclipses in the U.S. Map

Where will you be for the 2023 and 2024 solar eclipses in the United States?

NASA has released a new map that could help you decide.



Interact with NASA eClips on one of these platforms!



# PREPARE FOR UPCOMING EVENTS

**SAVE THE DATE**


**3RD ANNUAL  
STEM EXPLORATION  
COMMUNITY EVENT**

**SATURDAY, OCTOBER 14**

**Brooks Crossing Innovation & Opportunity Center**  
550 30th St. Suites 101 & 102. Newport News, VA 23607

**STEM event for youth and families!**  
Event will be held rain or shine. More details coming soon!

[CLICK HERE](#)

  
**BROOKS CROSSING**  
INNOVATION + OPPORTUNITY CENTER  
[brookscrossing.org](http://brookscrossing.org)

COASTAL VIRGINIA  
**STEM**  
ecosystem  
[nnva.gov/CoVA-STEM](http://nnva.gov/CoVA-STEM)  
[covastemhub@gmail.com](mailto:covastemhub@gmail.com)  
757-355-2132

## 3rd Annual STEM Exploration Community Event

For those in Virginia, please join us for the 3rd Annual STEM Exploration Community Event on October 14th from 10 a.m. to 2 p.m. at the Brooks Crossing Innovation and Opportunity Center in Newport News, Virginia for a wealth of STEM exhibitors and resources. Can't join us on Oct. 14th? Look for STEM events in your area. Better yet, consider planning your own.

**Use our LiveBinder of resources to help you plan your own STEM event!**

Interact with NASA eClips on one of these platforms!



# PARTNER RESOURCES



## Create a Pinhole Projector

In this activity, learners will create their own pinhole projector following an activity from the NASA Heliophysics Education Activation Team!



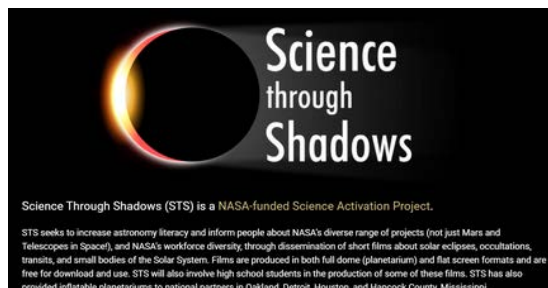
## Explore These My NASA Data Solar Eclipse Resources

In this activity, students will make observations about the objects, size, distance, and motion of the Sun, Earth, and Moon during a solar eclipse and manipulate slides to show the relationships.



## GLOBE Observer App

GLOBE Observer, the app of The GLOBE Program, invites you to make environmental observations that complement NASA satellite observations to help scientists study Earth and the global environment. Everyone in more than 120 GLOBE countries can download and use the app.



## Ring of Fire Video

On October 14, 2023, individuals and communities across North America will have the chance to see an annular solar eclipse. This type of eclipse is commonly referred to as a “ring of fire” eclipse and is different from a “total” solar eclipse. This video outlines the differences between the two, discusses best practices for viewing the eclipse, and prepares audience members to have an amazing experience on eclipse day!

Interact with NASA eClips on one of these platforms!

