



**NATIONAL ESPORTS
ASSOCIATION**

**Look Up!
Solar Eclipse of 2024
Teacher Toolkit**

On April 8, 2024, a total solar eclipse will occur in the United States, Mexico and Canada. that will be even bigger than the record-breaking eclipse in 2017. Astronomers are already predicting that this “Great North American Eclipse” will be the most-watched event in modern history, with an estimated half a billion people set to participate. It is our mission to make sure everyone is prepared to Look Up!

The National Esports Association is thrilled to collaborate with organizations, educators, communities, and individuals across the nation to make the "Great North American Eclipse" an unforgettable and safe event for everyone. Together, let's inspire curiosity, awe, and a deeper understanding of our universe!

Join our Look Up! Initiative and help us to inspire students to pledge to gaze at the awe-inspiring solar eclipse on April 8th, 2024. But it's not just about looking up at the skies; it's about lifting our heads from screens, looking up to mentors, and becoming leaders to whom others Look Up! To support this initiative, our Teacher Toolkit offers tailored resources and engaging activities for educators. Explore this comprehensive toolkit designed to not only encourage eclipse observation, but also foster a broader culture of curiosity, learning, and leadership. Let's inspire our students not just to Look Up! at the eclipse but to Look Up! in every sense—engaging with the world around them, seeking knowledge, and becoming role models to whom others can Look Up!

The Eclipse Opportunity

Looking ahead to the extraordinary eclipse on April 8, 2024, educators have a rare chance for an unforgettable teachable moment. As part of our #LookUp campaign, the National Esports Association is committed to supporting teachers and students in seizing this celestial event for learning and inspiration.

Email info@nea.gg for more information on how to make the most of this incredible eclipse.

Our goal is to equip teachers with the tools and resources they need to capitalize on the unique learning opportunities that the eclipse presents. We've curated this exclusive Teacher Toolkit based on insights from educators, conversations with eclipse experts, and scientific input.

If you're an educator seeking specific information not covered in this toolkit, email us at info@nea.gg! Your inquiries will shape our ongoing updates to this resource, ensuring it meets your needs and enhances your eclipse experience in the classroom.

What is happening where I am?

The burning question on everyone's mind: "What will the eclipse look like from my location?" Fear not, there's an interactive eclipse map designed just for that at www.theeclipse.com. Simply click on your spot and behold the calculated eclipse times and annularity duration specifically tailored for your area. Dive deeper with national and state-specific eclipse maps for an in-depth exploration. Oh, and don't miss the opportunity to [take the pledge](#) to LOOK UP!

These tools are your gateway to discovering the kind of eclipse experience waiting for you: whether it's a partial, total, or even no eclipse at all. While everyone in the contiguous United States (and portions of South America, Africa, and Europe) will catch a glimpse of at least a partial solar eclipse, ponder this. Could a trip to the path of totality elevate your eclipse experience? Check out all the options available near you at www.theeclipse.com!

What if my school is not in session on April 8, 2024?

If your school isn't in session on April 8, 2024, fret not! There are still fantastic opportunities to seize. Here's a glimpse:

- Before bidding adieu for the break, why not enlighten students and their families about the upcoming eclipse? Share an Eclipse Fact Sheet (available in Spanish too!) from the plethora of free printables on the [NASA eclipse website](#).
- Let's throw an Eclipse Party! Collaborate with fellow educators and organize a "Welcome-Back Eclipse Party" for the community. A school playground or field could be the perfect venue.

- Library rendezvous, anyone? Libraries nationwide are gearing up for eclipse events and seeking volunteers—schools can be fantastic partners. Dive into the STAR Library Network [eclipse guide](#) , a goldmine for teachers planning community engagements.
- Field trip alert! School community members might fancy venturing to an eclipse event nearby. Explore the map at www.theeclipse.com for local viewing events to find one within your reach. And if you do decide to go, be sure you're equipped to relish the eclipse safely.

Science Instruction and a Solar Eclipse

For those in school on April 8, 2024, the eclipse isn't just a celestial event; it's an opportunity to ignite a captivating learning journey about the Earth-Sun-Moon system or the Sun and its energy. Educators from kindergarten to 12th grade can delve into a treasure trove of resources that the National Esports Association put together as well as a list of additional resources.

- 1) The NEA has published an interactive book authored by NEA President, Lori Bajorek, on the eclipse entitled, Look Up! This book explores the phases of the eclipse and is narrated by SmartSchool's very own AI tutor YOKO who guides students on the journey of how to view the eclipse safely while discussing all the wonders to be learned while watching an eclipse. The book is also available in [hard copy](#) and as a [flipbook](#).
- 2) Escape the Moon – Minecraft Eclipse Experience is a great way to get your students involved in learning about the eclipse while completing puzzles to race to the rocketship to reach earth before the eclipse starts!
- 3) Take the Pledge to Look Up! Have students [take the pledge](#) to look up from their phones and become active participants in healthy online usage (#LOOKUP).

All three of these programs connect the eclipse phenomena to NGSS Performance Expectations:

For K-PS3-1, observing the eclipse demonstrates the Sun's effect on Earth's surface.

K-PS3-2 connects to designing structures to reduce sunlight's warming effect during the eclipse.

1-PS4-2 emphasizes the use of sunlight to create pinhole camera projectors for observations.

1-ESS1-1 and MS-ESS1-1 explore cyclic patterns of lunar phases and eclipse occurrences.

Incorporate these resources and NGSS connections to spark engaging discussions and hands-on learning experiences, making the eclipse on April 8, 2024 a captivating educational adventure for students.

Highlighted Resources

"The Universe in the Classroom: Getting Ready for the All American Eclipse!" by Brian Kruse offers Next Generation Science Standards (NGSS) Storyline Approach for classroom instruction.

"An Observer's Guide to Viewing the Eclipse" by Andrew Fraknoi and Dennis Schatz is a valuable resource.

Various modeling activities like "Modeling the Eclipse" from the National Science Teachers Association (NSTA) cater to different age groups.

Mathematics challenges related to the eclipse are available for all grade levels, from elementary to advanced trigonometry and calculus.

For Spanish-language resources:

"Eclipse Across America Fact Sheet" and materials from NASA's Space Place are available in Spanish.

Safety guidelines in Spanish are available in the flyer "Como Ver el Eclipse Solar del 2017 con Seguridad."

Experience the eclipse safely with your students.

Ensuring safety is crucial for a delightful eclipse encounter. For comprehensive safety and scientific guidance, NASA's Eclipse FAQ site is an excellent resource. It provides valuable information for teachers interested in procuring eclipse-viewing glasses for their students. The site mentions that Rainbow Symphony, American Paper Optics, and Thousand Oaks Optical are three certified manufacturers offering glasses meeting the ISO 12312-2 international standard. However, due to the anticipated enormous demand, it's recommended to order these glasses several months in advance. The National Esports Association also has a supply of glasses that can come with the purchase of our education packages, but supplies are limited.

The Science and Citizen Science

Scientists find solar eclipses exhilarating because they offer a unique opportunity to study the Sun's inner corona, the segment of the Sun's atmosphere situated immediately above its surface. This eclipse's path of totality spans land for 90 minutes, presenting a rare chance for scientists—and enthusiastic citizen scientists—to conduct prolonged observations of this sunlit portion that is exclusively visible during a natural solar eclipse.

Live streaming from the path of totality

If you and your students won't be able to witness the total eclipse in your area on April 8, 2024, fret not! The National Esports Association will be broadcasting the event on our [Twitch channel](#). This presents an alternative digital platform to engage and experience the eclipse.

One more thing...Look Up! on April 8, 2024

Amidst all the advice from experts, one message resonates strongly — relish the moment! Embrace the sensation as the Moon gracefully envelops the Sun, notice the hush descending upon the surroundings, and ponder the extraordinary nature of this solar eclipse. Capturing pictures of the actual eclipse might not be necessary (experts and professionals have it covered—and with greater precision). That still leaves eclipse selfies! Be sure to [take the pledge](#) to Look Up! and join in the selfie fun! Take a selfie capturing your eclipse experience and share it on social media using #Lookup. It's a personal way to immortalize your unique perspective of this celestial phenomenon.

Is there further teacher support?

The NEA will be hosting a live teacher webinar and Q&A with members of the NEA and NASA scientists to help teachers with their solar eclipse planning! The webinar will cover the educational opportunities available as well as resources and strategies for bringing the eclipse into your classroom, school, or community! Email us at info@nea.gg to let us know you are interested! You can also email questions ANYTIME about teaching the eclipse to info@nea.gg.

We will also be hosting a [Speaker Series](#) to encourage curiosity, connection, and emotional exploration through the lens of the April 8th total eclipse, merging science, gaming, and SEL.

Sample Look Up Pledge for April 8, 2024 Eclipse - Schools and Students

Pledge Statement:

We, the undersigned, on behalf of [School or Student Group Name], pledge our commitment to the National Esports Association's Look Up campaign in celebration of the solar eclipse on April 8, 2024. As a school/student group dedicated to fostering a sense of wonder, community engagement, and well-being, we enthusiastically pledge to participate in this unique celestial event.

Our Commitment:

Eclipse Viewing:

We commit to encouraging our students to take a break to observe the eclipse during totality on April 8, 2024. We recognize the significance of this celestial event and believe that taking a moment to Look Up! will enhance the well-being and curiosity of our students.

Eclipse Glasses and Safety:

We pledge to provide eclipse glasses to all our students to ensure a safe and enjoyable viewing experience. We will communicate safety guidelines to ensure that our students can witness the eclipse without any risk to their eyesight.

Viewing Parties:

We commit to organizing and encouraging eclipse viewing parties within our school/student group to enhance the communal experience. We recognize the value of shared experiences in fostering a positive school culture.

Endorsed T-Shirts:

We pledge to provide endorsed Look Up! campaign t-shirts to our students, fostering a sense of unity and pride in our collective commitment to the Look Up! campaign.

Social Media Promotion:

We commit to actively promoting our participation in the Look Up! campaign on our official school/student group social media channels. We will share updates, photos, and stories related to our eclipse viewing experience to inspire our community and fellow schools/student groups.

"The Wave" Participation:

At the conclusion of the eclipse, we pledge to actively participate in "The Wave," a symbolic gesture of unity and community engagement in a live video recording to share on social media. We recognize the power of collective actions in creating a positive and memorable experience for our students and the community.

By taking the Look Up! pledge, we, as a school/student group, join a community dedicated to creating meaningful connections, fostering wonder, and embracing the beauty of the cosmos. We extend our sincere gratitude to the National Esports Association for running this program and for their generous sponsorship and support.

[School or Student Group Name]

[Authorized Signatory]

[Date]

SAMPLE LESSON PLAN

Sample lesson plan integrating the [book](#) "Look Up" and the four phases of an eclipse, aligning with NGSS Performance Expectations across K-12 levels for the total eclipse on April 8, 2024.

Title: "Look Up": Journey Through the Four Phases of a Total Eclipse

Objective: Students will explore the four phases of a total eclipse as depicted in the book "Look Up" and connect these phases to NGSS Performance Expectations, including the Sun's effect on Earth's surface, and examine cyclic patterns of lunar phases and eclipses.

Grade Levels: K-12

Materials Needed:

Copies of the [book](#) "Look Up" by Lori Bajorek

Eclipse diagrams or pictures showing the four phases (contact, partial, total, and diamond ring)

Writing and drawing materials

Lesson Plan:

Introduction (15 minutes)

Begin by introducing the concept of a total eclipse and the NGSS Performance Expectations related to the eclipse phenomena.

Discuss the emotional and scientific aspects of observing an eclipse and how these align with learning objectives.

Reading and Discussion from "Look Up" (30 minutes)

Read aloud "Look Up." Pause at each phase depicted in the book (contact, partial, total, and diamond ring).

Engage students in discussions about what is happening in each phase and how the characters in the book might be feeling.

Relate each phase to NGSS Performance Expectations (K-PS3-1, K-PS3-2, 1-PS4-2) by discussing the Sun's effects on Earth's surface.

Activity Stations (45 minutes)

Station 1: Sun's Effect on Earth's Surface (K-PS3-1): Use diagrams to see the Sun and discuss its effects on Earth's surface during an eclipse.

Station 2: Designing Structures to Reduce Sunlight's Warming Effect (K-PS3-2): Design and create structures using provided materials to mitigate sunlight's warming effect during the eclipse.

Station 3: Exploring Lunar Phases and Eclipse Occurrences (1-ESS1-1, MS-ESS1-1): Use visuals to explore cyclic patterns of lunar phases and how they relate to eclipse occurrences.

Conclusion (15 minutes)

Gather students for a summary discussion, connecting their observations and activities to the four phases of the eclipse and NGSS Performance Expectations.

Encourage students to express their emotions and insights gained from the book and hands-on activities.

Assessment:

Evaluate student understanding through their participation in discussions, engagement at activity stations, and their ability to relate the book's content to NGSS Performance Expectations in follow-up discussions or reflective writing activities.

This lesson plan combines the exploration of the four phases of a total eclipse through "Look Up" with hands-on activities aligned with NGSS Performance Expectations, fostering engaging discussions and experiential learning about the total eclipse on April 8, 2024 for students across K-12 levels.