

CAP Solar Eclipse Classroom

Astronomy Parent Instructions

The Solar Eclipse on April 8 is a unique learning opportunity for students across North America. To take advantage of this our classroom has partnered with NASA and the Civil Air Patrol (CAP) to give your child the opportunity to not just observe the Solar Eclipse, but to become Solar Eclipse Citizen Scientists!

Over the course of the Solar Eclipse, your child will collect three types of data in their data book:

- **Air Temperature:** Your student's class is collecting air temperature as part of NASA's GLOBE Observer Project. This project will help scientist better understand how the energy from the sun affects weather and our Earth's Atmosphere.
- **Direct:** Students are encouraged to make observations about what the sun looks like at different points in the Solar Eclipse. **Note:** *Students should never look directly at the sun without proper eye protection. If solar glasses are not available or are damaged, students should make direct solar observations using an alternate system such as a pin-hole projector.*
- **Indirect:** Throughout the Eclipse, students will make observations about how the Solar Eclipse affects the world around them. These observations include watching how the color of the sky and the behavior of shadows change during the Eclipse.

The best way you can help your student make the most of this opportunity is to help them identify and keep track of the times they need to take measurements. You can look up these times based on the location you family will be viewing the eclipse here: <https://eclipsesoundscapes.org/eclipse-lookup-tool>.

Your student will be making and recording observations in their data books at:

AM or PM	Observation 1 is made at the start of the Eclipse, called 1st Contact. Your student will make a direct and indirect observation of the Eclipse.
AM or PM	Observation 2 is made 1 hour before Solar Eclipse Maximum. At this time your student will make another direct and indirect observation of the Eclipse and start collecting, air temperature data every ten minutes.
AM or PM	Observation 3 is made 30 minutes before Solar Eclipse Maximum. At this time your student will make another direct and indirect observation of the Eclipse and start collecting, air temperature data every five minutes.
AM or PM	Observation 4 is made at Solar Eclipse Maximum. Give your child an opportunity to enjoy experiencing the Solar Eclipse Maximum, then have them make another direct and indirect observation. Continue collecting air temperature data every five minutes.
AM or PM	Observation 5 is made 30 minutes after Solar Eclipse Maximum. Your student will take another direct and indirect observation of the Eclipse. They will also start collecting air temperature data every 10 minutes.
AM or PM	Observation 6 is made 1 hour after Solar Eclipse Maximum. Your student will take another direct and indirect observation of the Eclipse. They will also stop collecting air temperature data.
AM or PM	Observation 7 is made at the end of the Eclipse, called 4th Contact. At this time your student will make their final direct and indirect observations of the Eclipse.

Thank you for supporting your student's participation in this project!

To learn more about NASA's GLOBE Observer Project go to: <https://observer.globe.gov/do-globe-observer/eclipse>

To learn more about Civil Air Patrol's Solar Eclipse Classroom Program and access additional activities you can do with your family during the Eclipse head to: <http://tinyurl.com/CAP-Eclipse-Classroom-Info>