



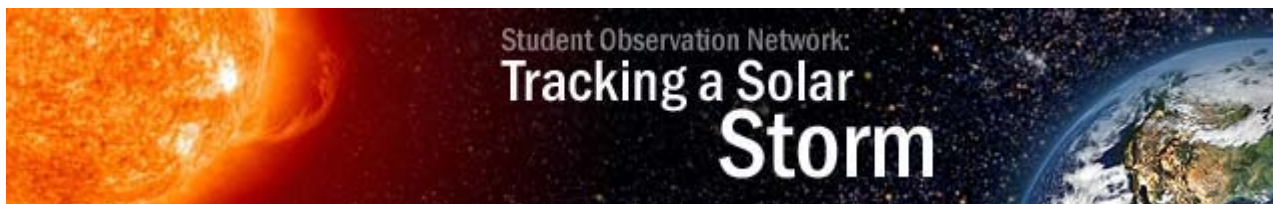
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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SUN-EARTH VIEWER

SPACE WEATHER RES



SUNSPOTTERS

RADIO WAVES

MAGNETOSPHERE

AURORAL

TEACHER'S EDITION

+ From Students

+ From Observatories

+ From Satellites

+ Submit Your Data

SUNSPOTTERS

From Students:

You can observe sunspots safely and easily from school or home with very simple instruments. Remember, however, you should never look directly at the Sun. Severe eye damage can occur.

When you make your own observations, you will project the image of the Sun on a piece of white paper using a sunspot viewer. Carefully and quickly draw the outline of the Sun on the paper and make marks on the paper where the sunspots are. You should try to make each mark the same size, shape, and position as the sunspot projected on the paper.

It can be very useful to observe the sunspots at the same time of day for as many days. If you can't get out to observe sunspots at home or school on a particular day, you can sunspot activity for that day from From Observatories or From Satellites. Observing at time of day allows you to compare changes over a constant time period and discover v important characteristics of the Sun.

TEACHER'S NOTE

Complete activities are available in the Teacher's Edition of Sunspotters. The circle t (in the Live From the Aurora Educators Guide: Sunspotters: Grade 8-12, p29) may h students record the data more easily.

NASA scientists use a variety of sources of data- this is for verification. You should not a single source to draw a conclusion either. Compare your drawings with images from ground telescopes (From Observatories) and from the NASA satellites (From Satellites

Predict your Sunspot Suspect

The Sunspot Suspect is the sunspot you think is most likely to be the location for an er that might affect Earth. Each sunspot has its own unique number that will identify it. WI compared your drawings from your own solar telescope with images from ground-base satellite telescopes, you will predict your Sunspot Suspect and submit it to the network compare your prediction with other students from all over the world.

TEACHER'S NOTE

Student Activity

Making Your Own Sunsp

You can build your own th one of the following metho

- [Making a Homemade Viewer \(Telescope\)](#)
- [Build your own pinhole camera/projector](#)
- [Binoculars](#)

Care must be taken with telescopes and binoculars that students do not look directly Sun. Even though students are directed to project the image on paper and trace the some students do not follow directions or get curious. The 'Sunspotter' by [Learning Technologies](#) (800-537-8703) and the "Solarscope" by [Solarscope](#) (847-579-0025) p easy and very safe sunspot viewing. The designs prevent students from looking dire Sun and make tracing the projected image fairly easy. Some instruments have speci that allow for direct viewing. There are a number of good "white light" solar filters on that will allow you to safely look directly through a telescope at the Sun. These filters found advertised in Sky and Telescope or Astronomy magazines. [Coronadofilter](#) can telescopes and in inexpensive binocular with a solar filter (the BINOMITE).

Content Enhancement



Student's Edition

+ Privacy Policy

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