

# The Sun, Our Nearest Star

## Facts about the Sun

Distance from Earth:	93 million miles, 8.5 light minutes
Diameter:	864,000 miles
Mass:	330,000 x Earth
	99.86% of all mass in the solar system
Diameter:	109 x Earth
Age:	4.5 billion years
Rotation at Equator:	25 Earth days
Rotation at poles:	35 Earth days
Solar Sunspot Cycle:	11 Years
Temperature at core:	27,000,000 degrees F
Temperature at surface:	10,000 degrees F
Temperature of sunspots:	7,300 degrees F



ANTELOPE VALLEY  
ASTRONOMY CLUB, INC.

A 501 (c)(3) Non-Profit  
Organization

On the web at:  
[www.avastronomyclub.org](http://www.avastronomyclub.org)

Tel: (661) 724-1623  
Or (661) 822-4580

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## How to Safely Observe the Sun

Never look directly at the face of the Sun without an approved solar filter or special "eclipse glasses". These have special materials in them that block out all of the harmful radiation from the Sun, as well as a majority of the Sun's bright glare so that you're able to see Sun Spots and even Solar Flares. Failure to use one of these approved "Solar Filters" will result in blindness (and will probably ruin your telescope because of the incredible heat build up inside the instrument. Solar filters are available at camera shops that sell telescopes. For more information, ask members of your local astronomy club for advice. For telescope filters, only use the kind that go over the front of the telescope, because these will keep both your telescope and your eyes safe.

You can watch a solar eclipse safely by going out under a tree and by looking *down*. Small holes in the leaves of the tree can act as little pinhole cameras and give a nice image of the eclipse in progress. Since you're looking at the shadows produced, this is a completely safe way of watching an eclipse. No trees? Make a pinhole in a small piece of aluminum foil and mount it in the middle of a larger cardboard frame to get the same effect. Eclipses are awe-inspiring events and shouldn't be missed!!

## What is Our Sun's Future?

Scientists have determined that the Sun appears to have been active for 4.6 billion years and has enough fuel to go on for another five billion years or so. At the end of its life, the Sun will start to fuse helium into heavier elements and begin to swell up, ultimately growing so large that it will encompass the orbit of the Earth. After a billion years as a "red giant," it will suddenly collapse into a "white dwarf" -- the final fate of a star like ours. It may take a trillion years to cool off completely.

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We're on the web! <http://www.avastronomyclub.org>

# You Are Invited to Join the Antelope Valley Astronomy Club!



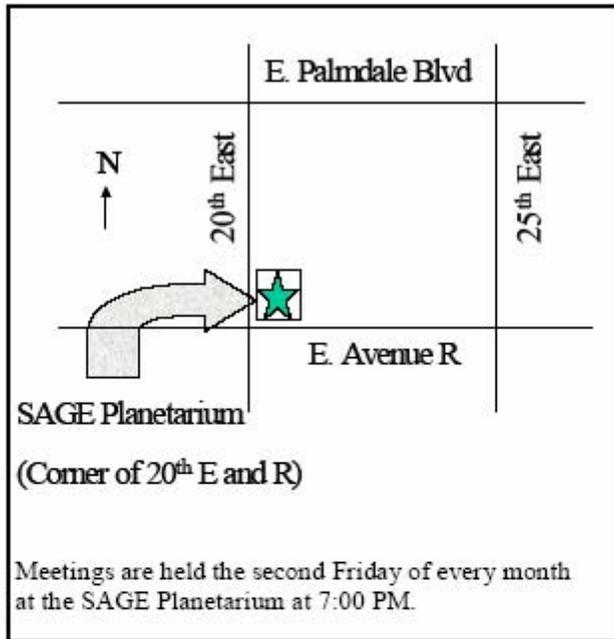
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## Monthly Meetings and Activities

The AVAC holds monthly meetings the second Friday of every month at the SAGE Planetarium, 38060 20th Street East, (located on the northeast corner of East Avenue R and 20th East) at 7:00 PM. The meetings include guest speakers and monthly programs about the fascinating night sky, while giving members and guests a chance to get together to talk about the stars or other topics of interest. We hold monthly public star parties and frequent 'deep sky' observing sessions as weather permits. We offer our members resources to help you learn more about astronomy including classes, telescopes and books.

## Directions to the Meeting



## AVAC Membership Application

AVAC Offers A Variety Of Membership Options:

- Family Membership Cost \_\_\_\_\_ (See Below)
- Individual Membership Cost \_\_\_\_\_ (See Below)
- Junior Membership (13 and younger) Total \_\_\_\_\_

Dues are prorated each month. See table below  
*Example: A Family Membership paid in June is \$17.50*

### Membership Dues

Month	Family	Individual	Junior
JAN	\$ 30.00	\$ 25.00	\$ 15.00
FEB	\$ 27.50	\$ 22.92	\$ 13.75
MAR	\$ 25.00	\$ 20.83	\$ 12.50
APR	\$ 22.50	\$ 18.75	\$ 11.25
MAY	\$ 20.00	\$ 16.67	\$ 10.00
JUN	\$ 17.50	\$ 14.58	\$ 8.75
JUL	\$ 15.00	\$ 12.50	\$ 7.50
AUG	\$ 12.50	\$ 10.42	\$ 6.25
SEP	\$ 10.00	\$ 8.33	\$ 5.00
OCT	\$ 7.50	\$ 6.25	\$ 3.75
NOV	\$ 5.00	\$ 4.17	\$ 2.50
DEC	\$ 2.50	\$ 2.08	\$ 1.25

Checks should be made out to 'AVAC'  
You may mail them to the Club PO Box or bring checks or cash to the meeting. **Do not mail cash.**  
You may also pay via PayPal on our website.

Name(s) \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone \_\_\_\_\_

e-mail \_\_\_\_\_

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