

## **SAFE SOLAR OBSERVING**

The following information is obtained from “The Backyard Astronomer’s Guide” by Terrence Dickinson and Alan Dyer (1991).

Examining the intensely brilliant surface of the sun is possible only with proper filtration. **Never** look at the sun through any optical device unless you are sure that it is safely filtered and that you know what a safe filter is. A very dense filter is necessary. Not only must it reduce all visible wavelengths to a safe level, but it must also block infrared and ultraviolet light. These invisible wavelengths can damage the retina of the eye, causing complete or partial blindness. **DO NOT TAKE CHANCES.**

**Over the years, many materials have been tested as solar filters. Only a few are recommended as being safe.**

### **DO NOT USE:**

**smoked glass,**

**sunglasses,**

**layers of colour or black and white film (no matter how dense),**

**photographic neutral-density filters**

**or polarizing filters.**

**The only safe filter** for direct solar viewing is:

**-an astronomical solar filter (made by a reputable company)**

**-or a #14 Welder’s filter** from Canadian Tire or welder’s supply store

For indirect solar viewing (the projection method using a pinhole and screen), no filter is required because, when these devices are used properly, the observer is **looking away from the sun. This is the only way these devices are meant to be used.**