

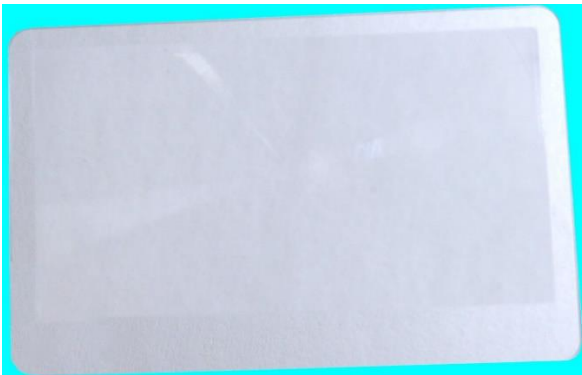
Solar Fire

By Steven Dykeman

Be safe
Have fun
Better yourself



By focusing the sun's rays onto a highly combustible material, it is very possible to get fire. This method of making fire is one of the most important fire skills to learn. If you are in an area where you do not get bright sun often, this may not be the case, however, if you are in an area where you get sun often, the sun can be the most reliable fire-starting method. You may deplete other fire starters, but the sun will still be there. Also, a lens will last a very long time if taken care of.



A preferred lens by many experts, is the Fresnel lens. It has a large enough magnification to provide plenty of heat to start many types of tinder or other combustible materials. A typical Fresnel lens is shown to the left. The convenient credit card size is ideal for any fire-starting kit.

Charcloth is ideal since it is black and will easily convert the sun's infrared rays into heat. It has a very low combustion temperature and will catch fire in a matter of seconds. Charcloth is very easy to make and carry in your fire kit.



How to use the Fresnel lens to start a fire

The most convenient way to use the sun is with char cloth, however many other materials work well also. When learning a new skill, I always recommend to start with something easy and then work up to more difficult techniques. I am going to show here how easy it can be. Remember, however, that just because it looks easy when I do it, doesn't mean that it doesn't require a lot of practice. If you don't practice it, then you won't learn it.



Best practice is to place the charcloth in your tinder bundle and then focus the sun on it. Once the charcloth begins to smoke, it is ready. I usually light the charcloth in two places to get extra heat from the charcloth.

If you are new to solar fire making it is a good idea to put some hemp rope fibers under the charcloth to make your tinder bundle light easily.

Steps to getting the sun focused on your charcloth

Place the magnifying lens between the sun and the charcloth. Move the position of the lens until you see a bright spot on the charcloth as seen in the first picture below. When you can see this bright image, you are doing good. Adjust the distance forward and back until the size of the bright spot is smaller as seen in the second picture. Now simply adjust the angle of the lens to achieve a round image as in the third picture. When you get a small round image, you should quickly see smoke.



Adjust distance



Adjust angle



Good focus



Once your charcloth is lit, carefully squeeze the burning charcloth in your tinder bundle and blow hard. It is best to blow upward on the tinder bundle to prevent the smoke from getting in your face which will cause choking.

When the tinder bundle burst into flame, quickly place it under your kindling. To get further information on this process and get further examples with other materials, see the written article or video on "coal to flame".



About the author:

Steve Dykeman is an experienced outdoorsman and survivalist. He has written many articles and produced many videos on subjects relating to outdoors and survival. He has been a course director and instructor to both youth and adults. He has also been a technical consultant to manufacturing companies relating to outdoor gear. He has over 40 years of experience working with space and defense related electronics. He brings his advanced technical abilities to the outdoors, exposing the many myths and fallacies.

In recent days he is educating people to survive into our uncertain future.

