## Magnifying Glass Starts Fire!



Probably everyone knows that a magnifying glass can start a fire. Arranged as in the picture above, however - there will be no fire!

Why? Because the light rays are not concentrated on one spot. A magnifying glass can focus sunlight on one TINY spot, and the heat of the sun will be focused there, too. If you have a piece of tinder there, you can likely set it on fire.



On the left is the ideal situation, with the magnifying glass oriented perpendicular or 90° away from the sun. The next drawing shows this ideal situation at Noon, with the sunlight concentrated in a very small spot.

The center drawing shows what happens if the magnifying glass is held too close to the tinder. The result is a larger circle of light with the heat spread out too far. The next drawing shows what happens if the magnifying glass is held too high. Again, there is a larger circle of light and little heat.

The drawing on the right shows what happens if the magnifying glass if tipped in relation to the sun. The circle of light is oblong, with the heat spread out too far.

So - Move the magnifying glass up, down, and tilted to get the <u>smallest</u> <u>possible spot of bright, bright light</u> and hot, hot heat!

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