



Make your own Sundial

Want to know a technology-free way to tell what time of the day it is? You can use a sundial! Sundials are used to tell the time of day based on the Earth's relation to the sun. When the sundial is pointing North, the needle, or gnomon, in the center casts a shadow on the dial and displays what time it is. The sundial outline is algebraically calculated based on your longitude and the season. Sundials were popular before the invention of the modern-day analog clock and the simpler, digital clock. The Chinese, Greeks, and Romans popularly used sundials and artifacts of them can be found in many museums.

Materials

- The sundial & gnomon
- Printer
- Scissors
- Glue or tape
- A compass
- The sun!

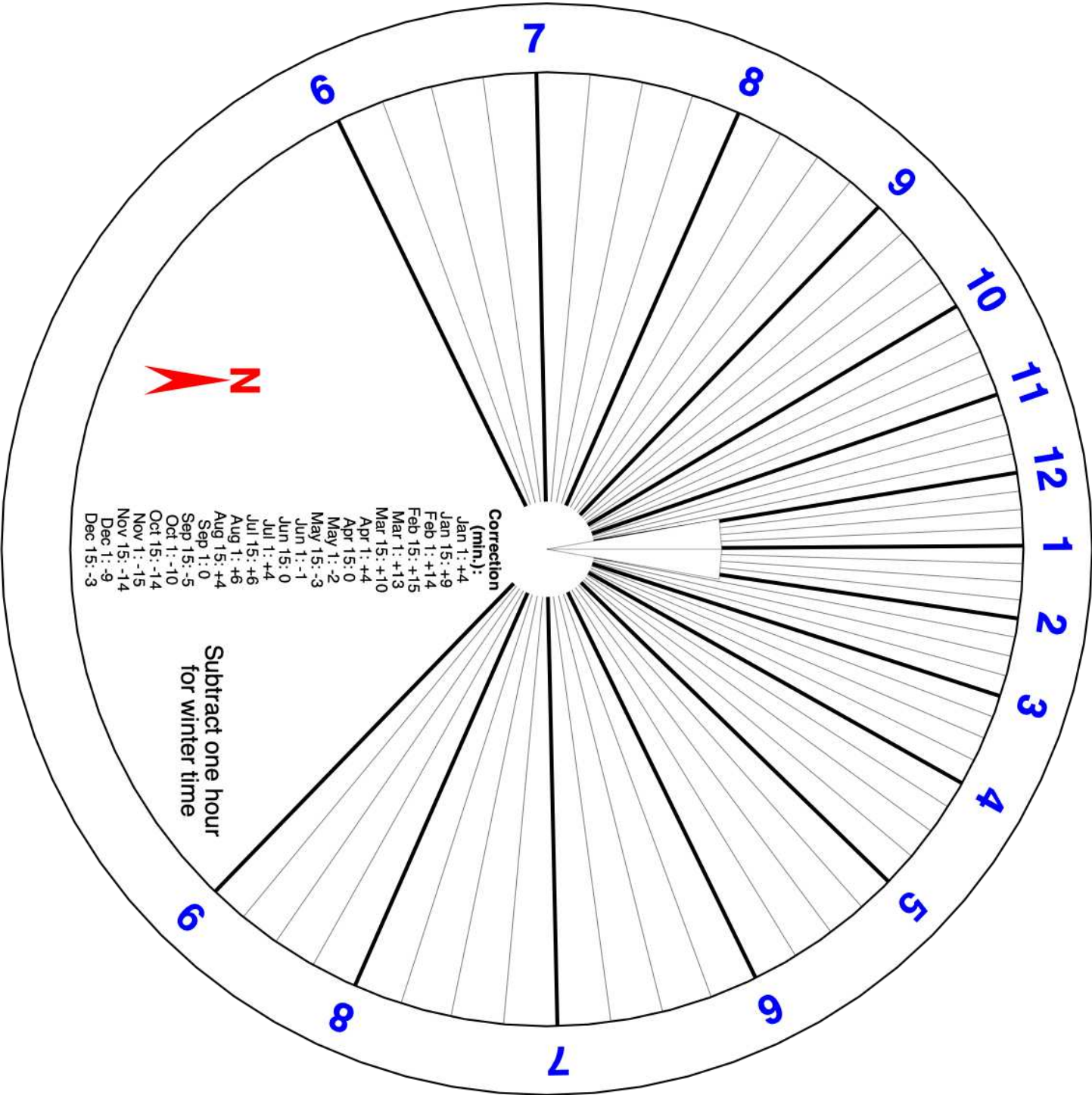
Procedure

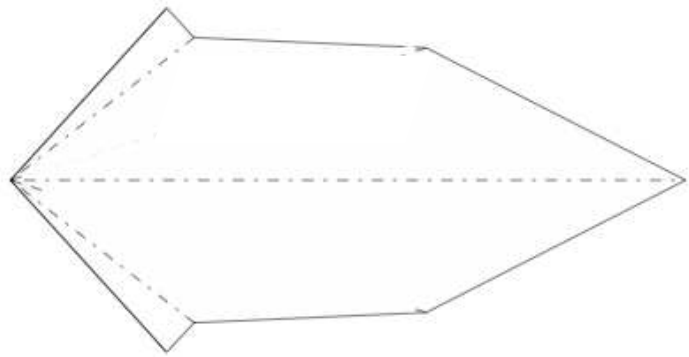
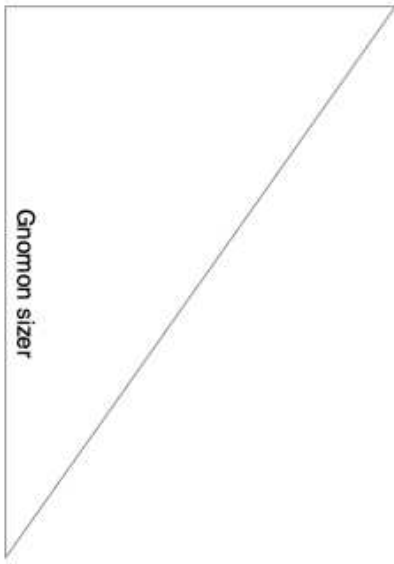
- Print out the sundial and the gnomon pages.
- Cut out the gnomon and fold the gnomon in half along the middle-dotted line and then fold the two flaps on the edges up
- Glue the small flaps on the edge of the gnomon to the middle of the sundial where it has the two blank triangle areas
- Go outside and get out a compass and find which direction is North
- Line up your paper so that the middle of the sundial is facing north (like the red N on the bottom left of the page)
- The sun should now cast a shadow on your paper with the time of day.

This sundial is measured so that it aligns with the path the sun takes during the summer relative to the zip code 93405. If you are using your sundial in a different month, use the correction table in the middle to add or subtract minutes from the time that your sundial shows!

If you are in a different area or want to make one for a different season, time zone, or location, you can use this link:

<http://analemmatic.sourceforge.net/cgi-bin/papercraft.pl>





Take a picture of you and your sundial in action and tag us @dunescenter on Instagram and @gndunescenter on Facebook