

# Sundials

## Background Information

For thousands of years, before people had watches or clocks, they used sundials to tell the time. The first sundials were used more than 3,500 years ago in Egypt. They consisted of a simple stick, pushed into the ground, which cast a shadow onto a dial.

People started to divide dial faces into equal parts to mark the hours. The earliest surviving sundials with hour markings date to about 1,500 years before the present era. Some of these sundials used tall stone obelisks to serve as the center stick or gnomon. Still, there was no standard number of markings, so the length of an hour was not the same on every sundial.

As sundials became more common, the gnomon became shorter and eventually pointed to the north (rather than straight up). When the length of a day was officially standardized at 12 hours, sundial faces were divided into twelve equal parts. These twelve parts marked the hours from sunrise to sunset.

This sundial is a typical example. It is made to sit flat and has a gnomon that, when properly installed, points to what astronomers call the north celestial pole (the point in the sky directly above the Earth's North Pole).

### Fun Fact

There is an amazing number of different sundial types. People built sundials to sit flat on the ground, fit flat against walls, or even to be portable like diptych sundials, or tiny ringdials!



## Artifact Details

*This sundial was designed by Otto Klotz, an astronomer who worked at the Dominion Observatory. It was made by Pritchard & Andrews, a company from Ottawa.*

*This sundial was made over 100 years ago for a Member of Parliament, W. Paterson, who lived in Ottawa and later became a Senator. It can read to an accuracy of 5 minutes.*



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