

Sidewalk Chalk Sundial Art

Celebrate the summer sun with a colorful outdoor activity that can take as long or as little time you have available. Any sunny day will suffice to create **sidewalk chalk sundials!** Create unique works of art over the course of a day, while discussing (or exploring) topics like the invention of the sundial and modern clock, the solar system, or Earth's rotation. So stash aside some chalk with an activity that can keep your kids or students entertained for hours. Or as long as the sun shines...

Materials:

Sidewalk **chalk** of various colors

Clock – digital or analog depending on the age-group

Large asphalt or **concrete area**

Stopwatch or **timer** (recommended, but not required) Directions:

Choose a large concrete or asphalt area to create your sundial. Mark the spot where the shadow-maker stands with a box. You or your shadow-making volunteer stands on this spot facing the same direction each hour, on the hour, striking a pose or playing statute while another helper traces the shadow.

Before heading back into the shade, predict where the shadow will travel. How will the shadow change through the day? Keep adding to your sundial art noting any changes (and surprises!) until you run out of room, chalk, or daylight hours. Check back tomorrow to see if you can tell the time based on where the shadow falls on your sundial art.

Enrichment:

- Trace the shadows on the half or quarter hours.
- Dive into **research** on the topics brought up today, especially any questions that pop up. (Ex: Who created the first sundial? The first analog clock? Digital clock? What is the Earth's axial tilt? Why does this tilt matter?)
- Use a digital clock to **compare** the digits to the numbers and arms on an analog clock. Practice naming the hours and reading both clocks before tracing the shadow.
- **Create** a sundial in a new location or with varying materials, such as an open grassy area with found materials or a basketball court at the local playground!