

SOCIAL DISTANCING ACTIVITY GUIDE



HOME SUNDIAL ACTIVITY HANDOUT

Print this sheet and follow the directions in the circle to make your own sundial and see how they were used to note time in the age before watches, clocks, and smartphones. You'll need a paper (or foam) plate, scissors, tape or glue, a popsicle stick, a compass (or other way to find north), a protractor (optional), a pencil, and a marker.



RECORDED MONTH OF:

1. Cut out this circle, then tape or glue it to the center of your plate's bottom side.
2. Insert popsicle stick at the center of the cross mark in the arrow above.
3. If you have a protractor, angle the popsicle stick to lean at 38° in the direction the arrow is pointing. If not, just lean it towards the edge of the plate.
It doesn't have to be perfect to see how sundials work.
4. On a sunny day, go outside and point the arrow (and popsicle stick) north. Try not to move it once it's in place and lined up northward.
5. In pencil, mark the edge of the shadow that is closest to the dotted line above every hour during daylight and write the hour next to your marking.
6. Subtract one hour from each reading during daylight savings time, finalize marks in pen.
7. If desired, repeat monthly and note any changes.

While you're at it, here are some talking points to further the sundial discussion.

1. The shadow-casting piece of a sundial (in this case a popsicle stick) is called a GNOMON.
2. Sundials can be extremely accurate (even to the minute), but only work sometimes. What kinds of conditions would keep a sundial from working?
3. Why do you have to subtract an hour from your readings during daylight savings time?
4. This activity will work accurately in most of the United States. What would you have to change to make it work somewhere else, like Brazil or Australia?
5. How would your life be different if a sundial was your primary way to tell time?