



Summer Learning: Sundial

Use the sun to tell time. Create a sundial from household materials

You'll need:

- A compass or compass app on a smartphone
- Ruler / straight edge
- Pencil, stick, or wooden dowel.
- Plate or cardboard piece. Circular is better.
- Tape
- Rocks, or something heavy to hold down your sundial.
- A sunny day!

What to do:

Sundial Challenge

A sundial is a device that uses the position of the sun to reflect the time. An upright stick, called a gnomon, is positioned to cast a shadow onto a pre-marked sundial face. As the sun moves across the sky, the shadow also moves, and you can tell time based off the position where the shadow is cast.

1. Measure and find center of plate or base.
2. Poke a hole through center of plate.
3. Stick pencil through center and tape underside if needed. Tilt slightly forward.
4. Head outside on a sunny day!
5. Find North on your compass, and make sure your sundial is facing north.
6. At the top of each hour mark a line along the shadow from the center of your base to the edge. Mark the time.
7. Repeat hourly. (Make sure not to move your sundial.) You've got a working timepiece as long as it is sunny.





As an option for this challenge, you don't need to use a pencil and plates. You can use chalk on a driveway, and place stones as your hour markers. Or you could stand in the same place each hour and use your body as the gnomon! Get creative with how you make your sundial.

Don't forget to take a photo of your sundial creations, and share it on social media to with #CCPLSummerSTEAM to get credit for our Summer Reading Game!