

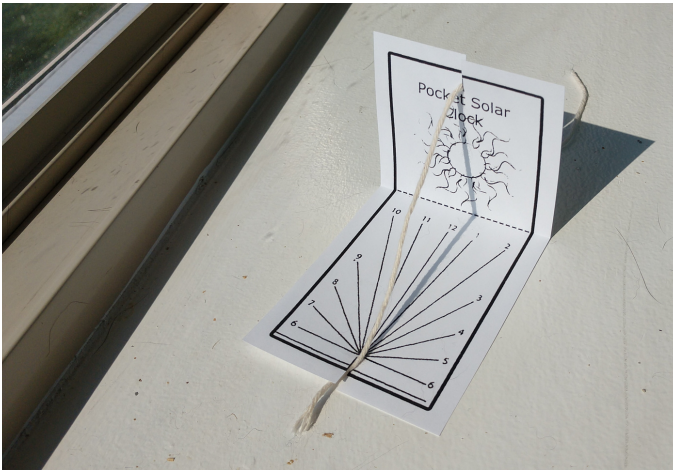


## SOAR TOGETHER @ Air and Space Activity: Pocket Solar Clock

*Designed for families with kids ages 5 and up*

**People throughout time have used the Sun and shadows to tell the time of day.**

**Now you can do it with this simple paper clock!**



### What You'll Need:

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- Printed solar clock pattern (available on the second page)
- Piece of string about 6 inches long

### FIRST, make your Solar Clock:

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**Step 1:** Print the second page and cut out the solar clock pattern.

- NOTE: You can also trace the pattern from your screen instead of printing.

**Step 2:** Cut slits at the two short, thick lines on the top and bottom of the pattern.

**Step 3:** Fold the clock along the dotted line, and set it so the fold makes a right angle.

**Step 4:** Place the string through both slits so it makes a straight line.

- The string is the gnomon ("NO-mon"), which casts a shadow on your clock.

### THEN, track the time using the Sun:

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- Set your solar clock in your hand or on a surface where the Sun can shine on it.
- Rotate your solar clock until the Sun image is facing south. If you live in the Southern Hemisphere, you'll face your Sun image to the north.
  - To find which direction to face your clock, look for the direction where the Sun is at midday, when it is highest in the sky.
- See where the gnomon's shadow falls, find the line closest to it, and read the number at the end of that line to approximate the time.
  - For example, if the shadow falls halfway between the 8 and 9 lines, then the time is about 8:30.



### Additional Tips

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- You can use a digital clock to adjust the alignment of your solar clock. For example, set it so the gnomon's shadow is right over the line marked "12" when it is noon where you are.
- During daylight savings, add one hour to get the correct time.

### Share with us!

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Share a picture of your Pocket Solar Clock on social media (tag @airandspacemuseum on Instagram) or in our [Goosechase game](#) for the solstice!

### Air and Space Connections:

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People have tracked the changing angle of the Sun for [thousands of years](#), using [sundials like this one](#) to tell the time based on shadows.



Print and cut out (or trace) the Pocket Solar Clock here:

