

Exploring Shadows and Making Chalk Time Trackers

This activity will guide you on how to use an object and chalk to create a time tracker inspired by Paul Manship's *Hercules Upholding the Heavens*.

Time: 20 minutes hands-on,
6 hours total

Difficulty level: Easy

Messy level: Moderate



Investigate the Work of Art!

1. *Hercules Upholding the Heavens* depicts Hercules, hero of Ancient Greece, holding the heavens on his back for Atlas. How does the artist show the strength of Hercules?
2. This bronze sculpture is over 10 feet tall. How does the size of the work make you feel? What if it were placed on the ground instead of on a pedestal? Would you feel the same or different?
3. Have you ever played outside all day and noticed that the length and location of your shadow changed as the hours went by? How would this sculpture's shadow change throughout the day?

To view a hi-res image of the work, visit the [MFAH Collection online database](#).



Let's Make Some Art!

Gather These Art Materials

- Three colors of chalk
- Objects you don't mind setting outside

Step-by-Step Artist Instructions

1. Select one or two objects that you would like to use to cast a shadow for your time tracker. Keep in mind that the larger the object, the larger its shadow.
2. Place your object on a flat area of concrete outside, one that you know will receive light all day. Light is very important in this activity, so make sure it is a sunny day.
3. Place your object on the concrete, facing north. If you can't identify north, use a compass (most smart phones have a compass app).
4. Observe and trace the shadow (not the object) using one color of chalk.
5. Two or three hours later, go out and trace the shadow using another color of chalk.
6. Two or three hours later, go out and trace the shadow once more using your last color of chalk.
7. Notice how the shadows have changed in shape over time. Now look back at the Hercules sculpture. What do you think its shadow would look like, and how would it change over time?

**Note: These times don't have to be exact. The sample above was done at 11:00 a.m., 2:30 p.m., and 5:00 p.m.*

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Paul Manship, *Hercules Upholding the Heavens*, 1918, bronze, the Museum of Fine Arts, Houston, gift of Mrs. Mellie Esperson, 39.148.