



5. What Can We Learn About The Sun From Shadows? - Activity

3. Return indoors to construct a sundial.

Distribute the materials and have participants follow the directions on the handout sheets to construct their own sundials. Go over the instructions on the Sundial Handout before returning to the outdoor experiment.

4. Return to the outdoor investigation to see what happened to the shadow.

Outdoors, gather the group around the object casting a shadow on the paper. Have a volunteer trace the new position of the shadow and record the time. Ask:

- Where is the Sun now? Without looking at the Sun, how do you know that?
- Make a prediction: If you came back in an hour, where would the shadow be? In what direction does it move?

Measure the shadow. Ask:

- How has the length of the shadow changed in relation to the height of the object? How might it change in another hour?

5. Use the sundials.

Demonstrate how to use the sundial to track the Sun's position during the course of a day. Suggest that participants take the sundials home and try them out over the weekend when they will have more daylight hours in which to record changes and calibrate their dials.

Ask participants to bring their sundials back to use again in the next science session.

NOTE:

Since it is inevitable that some participants will forget to bring back their sundials, you may need to prepare several extra ones for the next session.