exploratorium

Field Trip Chaperone Guide

Sun, Shadow, and Seasons

**BEFORE YOU START**

You don't have to be a science expert!
The goal of this guide is to support you in deepening students' experiences. We've provided some questions you can ask to focus their explorations. Remember to have fun and enjoy your visit!

What is the value of this guide?
The topic, exhibits, and questions in this guide were designed to enrich your students' learning. There is a lot to think about as a chaperone, and this guide will walk you through an experience chosen by your teacher.

Make it your own!
Try to make this experience unique for yourself and your group by sharing related stories or asking your own open-ended questions. Feel free to visit the listed exhibits at any time during your field trip and in any order.

Where are the exhibits?
Look at the labeled map on the back to find the exhibits you will visit. We often move exhibits around. If you need help finding an exhibit, just ask an orange-vested Explainer.
### Step 1: Explore the Exhibit

**Let’s try it out!**

#### Sky Theater

- **Take a Closer Look:** Try pointing to the sun as it moves across the sky. Can you predict its path during different seasons?
- **Make the Connection:** Which parts of the landscape in the video are familiar? Come outside of the theater and look out the window or stand on the terrace.

#### Oculus Table

- **Set It Up:** Move the table into the circle of sunlight coming from the ceiling. Can you get the shadow of the black ball to fall on the current time and month?
- **Prediction:** Look closely at the months and times. Where do you think the shadow of the black ball was at 9 a.m. today? Try tracing the path the shadow took today.

#### Urban Heat

- **Take a Closer Look:** Can you find any cold spots that might be in a shadow?
- **Making Meaning:** Look at the chart at the bottom of the screen that shows the temperature over the last 24 hours. Can you guess when the sun set last night and rose today?

### Step 2: Investigate Questions

**What did you notice?**

### Step 3: Sharing Ideas

**Time to discuss**

- **Warm-Up Question:** Was there anything about this exhibit that surprised you?
- **Time:** What do you think the path of the sun will be today? Trace it in the sky with your finger. How did you make your prediction?
- **Prediction:** Where in the sky do you think the sun will be in two hours?
- **Warm-Up Question:** What was most memorable about this exhibit?
- **Everyday Connections:** Can you think of a time when it was sunny out and you felt cooler in the shade?