



WHAT'S UP?

UNDERSTANDING THE SKY

Use this guide as a starting point, but there's so much more to see and do at Adler! Don't forget to take time and space to explore what interests you and your group. You can visit these exhibits in any order you like.

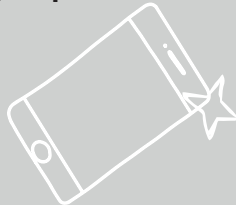
CHICAGO'S NIGHT SKY



LOWER LEVEL

#8 on the map

Chicago gives off a lot of light that can make it hard to see the stars! Look at the map on the floor. Can you find the Adler Planetarium? Hint: it is on Lake Michigan. Is there a lot of light around the Adler? Do you think we can see a lot of stars from here at night? **Take a selfie with your group!**



Try Light Pollution Solutions stations and check out the video in the bus shelter to see what Adler teens are doing to improve light pollution.

What can people do to make it easier to observe the night sky?

The night sky looks different depending on where you are. Look for the star-finders in the back of the exhibit. Can you spot constellations you know?

Draw and label one!

On the next clear night, see if you can spot the constellation you drew. If you want to learn to identify objects in the night sky, try an app! You can find suggestions outside the entrance of the Space Theater (#10 on the map).



Look at the Southern Hemisphere star finder. There are many constellations shown that we cannot see from the Northern Hemisphere. Think about it.

Why do you think the stars are different on the southern half of Earth compared to the northern half?

Pick a constellation from one of the star-finders that's new to you.

Draw and label it here.



CHICAGO'S NIGHT SKY (cont.)

LOWER LEVEL

#8 on the map

A **constellation** is a group of stars that formed a picture in a stargazer's imagination.

Try Create a Constellation to make one of your own!

Constellations often have stories about them.

What is the story of your constellation? **Share your story with the rest of your group.**

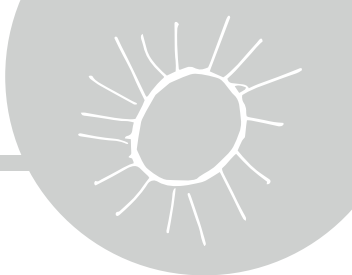
Draw your constellation here:

Everyone looks up. Look at the art on the wall. It shows people all over the world, throughout time, looking up at the night sky. **Why do you think humans are so fascinated by the sky?**

Draw your favorite piece of art from this area. **What do you like about it?**



CHASING ECLIPSES



LOWER LEVEL

#15 on the map

Watch the *Eclipse Chasers* video. Why do you think the people were so excited about viewing a solar eclipse?

Would you be excited to see one? **Why or why not?** Compare responses with your group.

Look at the map of the United States on the wall.

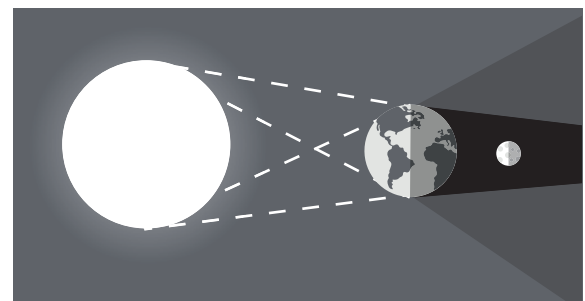
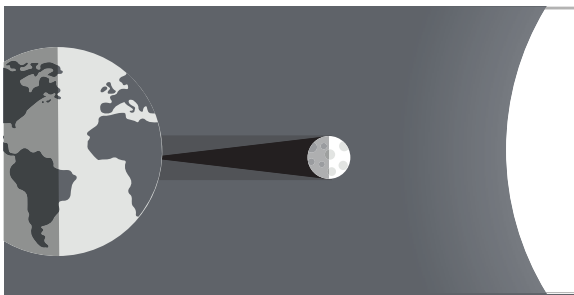
Will Chicago see a total solar eclipse in April 2023? _____

Will any part of Illinois? _____

List other three states that will be in the path: _____



Watch the *Making Sense of Eclipses* video.
Which model below shows a solar eclipse? Which shows a lunar eclipse?



Will Earth always see total solar eclipses?

Why or why not?



UNIVERSE IN YOUR HANDS

LOWER LEVEL

#6 on the map



Sundials use shadows to tell time.
Using the large sundial, compare shadow lengths.



On what date are shadows the longest?

When are they shortest? _____

Why does the shadow's length change?
Write or draw your explanation below.

Move the Sun to a date important to your group (maybe the last day of school!).

Draw the sundial and its shadow.

Date: _____

This sundial was made to show Chicago's latitude, 42°N.

- Does the Sun ever shine directly over the sundial? _____
- When is it the highest? _____
- **Talk with your group**– Why is this? Do you think the Sun would ever shine directly overhead in other parts of the world? Where? Why? _____



UNIVERSE IN YOUR HANDS (cont.)



LOWER LEVEL

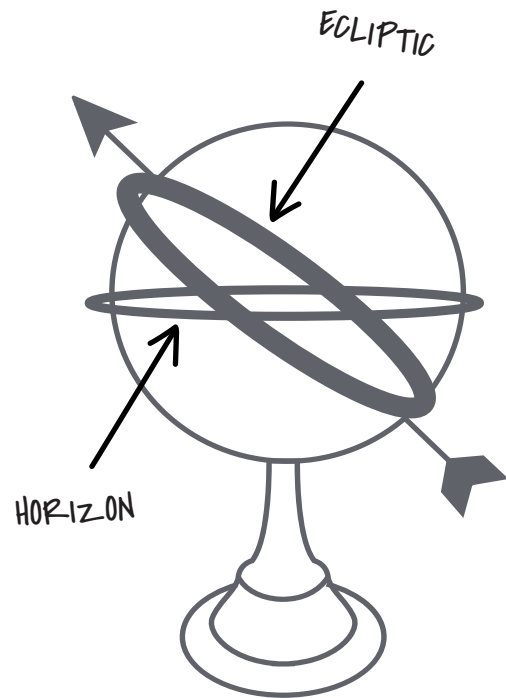
#6 on the map

Before exiting the exhibit, take a sharp right at the white and red astrolabe to find an armillary sphere you can use in the back of the exhibit (look for Organizing the Spherical Universe).

On the armillary sphere, find the wide white band with four colored stripes on it. This band is called the **ecliptic**. When we look up from Earth, we see the Sun following the path of the ecliptic in the sky.

Next, find the compass directions: north, south, east, and west. They're on a band that represents the horizon, where the Sun rises and sets.

See how the Sun moves at different times of the year by putting a Sun magnet on each of the different color lines, then moving the Sun from east (sunrise) to west (sunset).



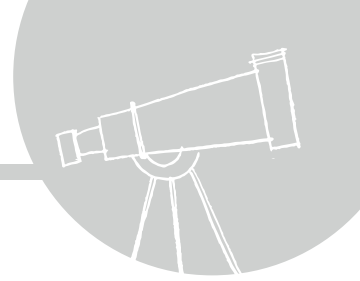
What color line(s) make the Sun rise directly in the east and set in the west?

On what color line does the Sun go the highest?

What season does this represent?

Walk back towards the red and white astrolabe, then turn right to enter the Community Stargazers' Hub exhibit.





LOWER LEVEL

#14 on the map

Explore the Focus and Reflect area to learn about using lenses and mirrors to see stars and other faraway objects more clearly.

Lenses _____ light and
mirrors _____ light.

Which one is used on the JWST telescope?
(circle one)

Lenses



Mirrors



The JWST is a modern telescope. Explore the much older telescopes in the exhibit.

Do they use lenses or mirrors? _____

On the table by the rocking chairs, there is a story about observing changes in the night sky, Routine. Read this story with your group. **What did the narrator and their dad notice in the sky?**

Think about it! Why did their view change each night? Hint: think about how Earth moves through space.



UPPER LEVEL

1 MISSION MOON

Step inside the story of Captain James A. Lovell, Jr., and witness the beginnings of America's journey into space.

2 GRAINGER SKY THEATER

Tickets available at the box offices. Destination Solar System Imagine the Moon

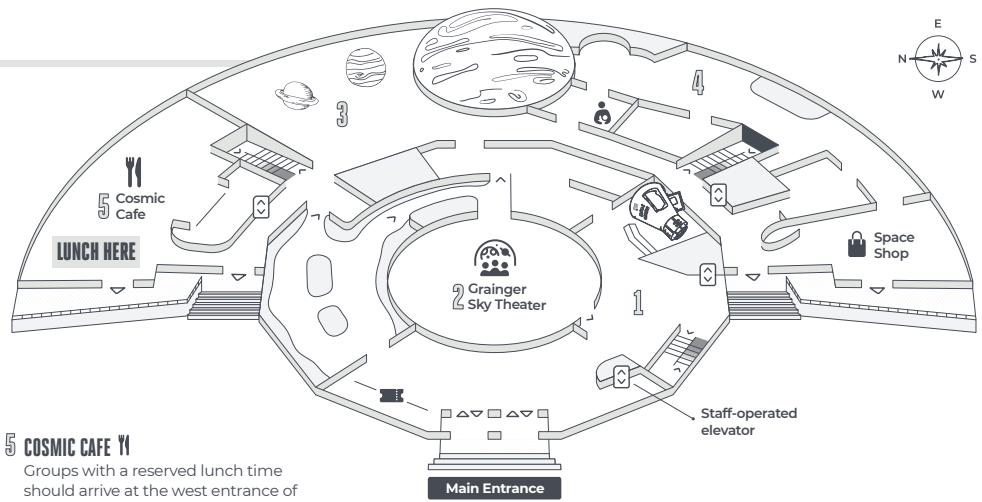
3 OUR SOLAR SYSTEM

Explore the many worlds—planets, moons, dwarf planets, and asteroids—that orbit the Sun.

Red Rover: Mars Activity Station is set up here.

4 PLANET EXPLORERS

Children in Pre-K through 3rd grade can blast off to Planet X and take the helm in this modern-day space adventure.



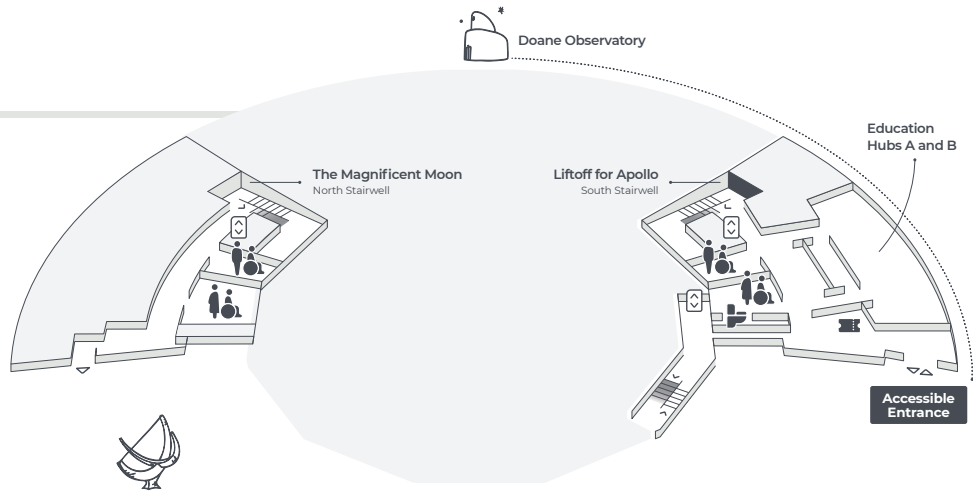
5 COSMIC CAFE 71

Groups with a reserved lunch time should arrive at the west entrance of the Cafe 5 minutes before their scheduled lunch.

MID-LEVEL

AMENITIES ON THIS LEVEL INCLUDE:

- Restrooms equipped with changing tables
- Water fountains
- Ground level exits
- Vending machines (South)
- All Gender restroom



LOWER LEVEL

6 UNIVERSE IN YOUR HANDS

Go back in history to learn about some of the cultures that have engaged in the quest to understand their place in the Universe.

7 COMMUNITY STAR STUDIO

Let your imagination shine in this collaborative design space. Check at exhibit for available times.

8 CHICAGO'S NIGHT SKY

Discover how your night sky connects you to everyone, past and present, in every place on Earth.

9 THE ATWOOD SPHERE

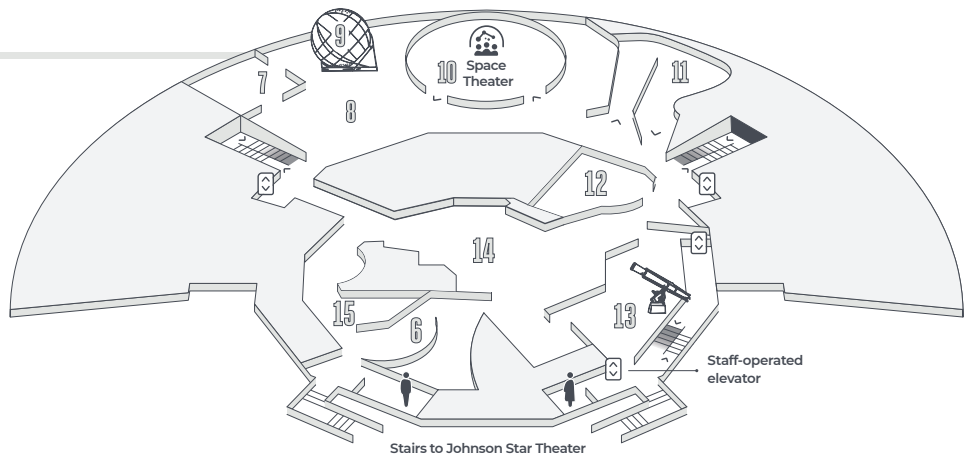
The Atwood is not operational at this time.

10 SPACE THEATER

Tickets available at the box offices. Skywatch Live! Planet Nine One World, One Sky

11 THE UNIVERSE: A WALK THROUGH SPACE & TIME

Visit distant corners of the cosmos and witness how the Universe has evolved over 13.8 billion years.



12 SPACE VISUALIZATION LABORATORY

Both Adler and visiting experts collaborate to create new ways for people to virtually explore the Universe.

13 TELESCOPES: THROUGH THE LOOKING GLASS

Uncover the extraordinary beauty and technology of some of the world's most important telescopes.

14 COMMUNITY STARGAZER'S HUB

Unravel the mystery behind tools of observation.

15 CHASING ECLIPSES

Discover how people past and present have predicted when and where to stand in the narrow corridor of totality—and prepare to chase down a total solar eclipse for yourself.