



# SUNSCREEN



## 2025



### THE ADLER PLANETARIUM'S

### SUMMER 'ZINE





## THE SUN

### STRENGTHS\*:

- ★ SUPER-STRONG GRAVITY
- ★ HIGH ENERGY OUTPUT
- ★ BURNING THINGS

### AMPLIFIED BY:

MAGNIFYING GLASS



### WEAKNESSES:

- ★ BLACK HOLES
- ★ LIMITED STORE OF NUCLEAR FUEL
- ★ THE DARK

### TRAITS\*:

HOT, LIKE REALLY HOT

### FIRST APPEARANCE:

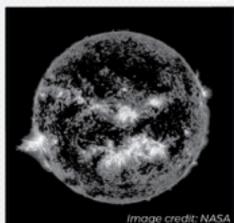


Image credit: NASA

4.5 BILLION YEARS AGO

### WEAKENED BY:

SPF



LOVES BEING THE CENTER OF ATTENTION

HAS "BIG FISH IN A SMALL POND" SYNDROME

### LIVES AT:

ORION SPUR ARM OF THE MILKY WAY GALAXY



Image credit: NASA

### SPECIAL ATTACKS:



SOLAR WIND

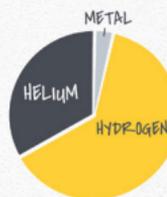


SOLAR FLARE



CORONAL MASS EJECTION

### COMPOSITION:



# HOW TO MAKE A SUN ICE CREAM CONE



**1. Scoop out a little bit of the Sun.** Do not attempt this. The Sun's heat will vaporize you from a million miles away.

**2. Sneak a taste.** No, don't do that—it's too hot! The super-heated atoms in the Sun are mostly ionized, which means they have had electrons stripped off. Electrons are really important for chemical reactions like tasting, sorry.

**3. Cool the scoop.** YES. You SHOULD do this. If someone gives you a scoop of the Sun, place it somewhere that can't melt or burn and let it cool. But again, don't eat it.

**4. Delicious!** Is it? The Sun is mostly hydrogen and helium, which don't taste like anything. It also has trace amounts of elements like carbon, silicon, magnesium, iron—which would probably taste metallic on Earth—and sulfur, a key ingredient in the smells of farts and rotten eggs. Maybe stick to chocolate??



# A GUIDE TO COSMIC TEMPERATURES

EXTREME HEAT

## Highest Theoretical Temperature

250 million trillion trillion°F

The Planck temperature is the fundamental upper limit of temperature

★ = Image Credit: NASA

## \* Eta Carinae A

Surface temperature of 26,500°F

## \* Parker Solar Probe Heat Shield

Withstands up to 3,000°F  
This probe was designed to withstand heat when orbiting the Sun

## \* Black Hole Corona

Up to 1.8 billion°F  
Some black holes, much like the Sun and other stars, also possess a superheated corona

## \* Surface Of The Sun

10,000°F  
That's hot enough to melt titanium!

## \* Volcanic Eruption

2,200°F  
Lava can be anywhere between 1,300–2,200°F on Earth

## Hot Tub

102°F

## \* Earth

59°F

## \* Uranus

-320°F

## \* Large Hadron Collider Operating Temperature

-456°F

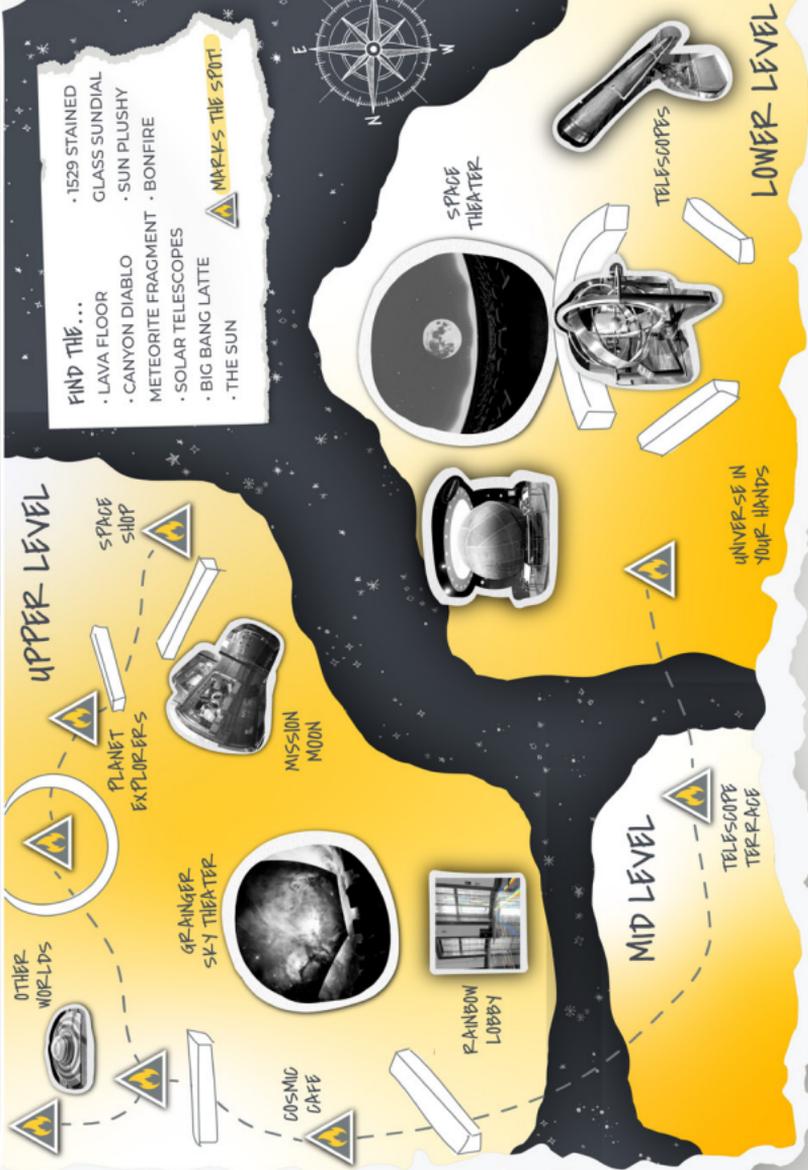
## Absolute Zero

-459.67°F

Reviewed by Adler Scientists

# THE ADLER MUSEUM HEAT MAP

CAN YOU FIND THE HOTTEST SPOTS AT THE ADLER?



**ROTATE**  
YOUR PHONE

# THE CELESTIAL ZOO

★ COLOR THESE CONSTELLATIONS TO MAKE THEM SPARKLE!



CANIS MAJOR,  
THE GREATER DOG



LEO, THE LION



DELPHINUS, THE DOLPHIN



PEGASUS, THE  
WINGED HORSE

# SUMMER HOMEWORK FOR STARGAZERS AND SPACE NERDS

## SUMMER STARGAZING BUCKET LIST



AUGUST 12-22:

★ WATCH THE MINI-PLANET PARADE OF SATURN, JUPITER, VENUS, AND MERCURY



SEPTEMBER 7:

★ DANCE UNDER THE FULL CORN MOON



SEPTEMBER 16:

★ SPOT A CONJUNCTION OF THE MOON AND JUPITER



SEPTEMBER 21:

★ SING TO SATURN SHINING AT ITS OPPOSITION



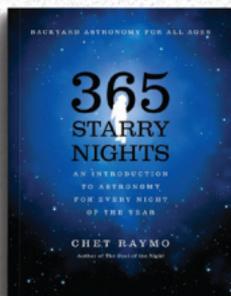
SEPTEMBER 22:

★ WAVE GOODBYE TO SUMMER AND WELCOME IN ASTRONOMICAL AUTUMN



# GROWN-UP SUMMER READING LIST

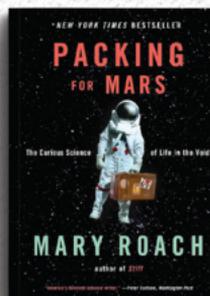
For Teens & Adults Obsessed With Space



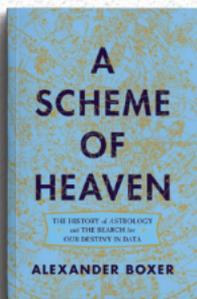
365 Starry Nights by Chet Raymo



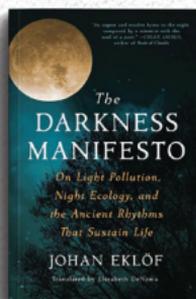
The Mission by David W. Brown



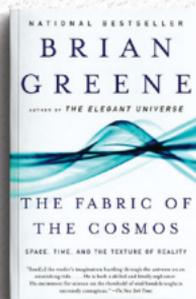
Packing For Mars by Mary Roach



Scheme Of Heaven by Alexander Boxer



The Darkness Manifesto by Johan Eklöf



The Fabric Of The Cosmos by Brian Greene



SCAN THE QR CODE  
TO LEARN MORE ABOUT OUR  
BOOK RECOMMENDATIONS!



As your spaced-out summer transitions into a far-out fall, keep up with our cosmic shenanigans at the Adler Planetarium. Get your fill of mildly-educational, and highly-entertaining space hijinks straight to your inbox, all year long.



In our bi-weekly newsletter, **Space From Home**, we give you the rundown on breaking space news, share fun things to click on, and keep you up-to-date on all things Adler.

SCAN QR CODE



**Super** SECRET **Sneak**

**PEEK** on What's

Coming **THIS FALL**

A BRAND-NEW EXHIBIT

A DAY DEDICATED TO  
MYSTERIOUS DARK MATTER

NEW SCIENTISTS SHARING  
THEIR EXPERTISE

