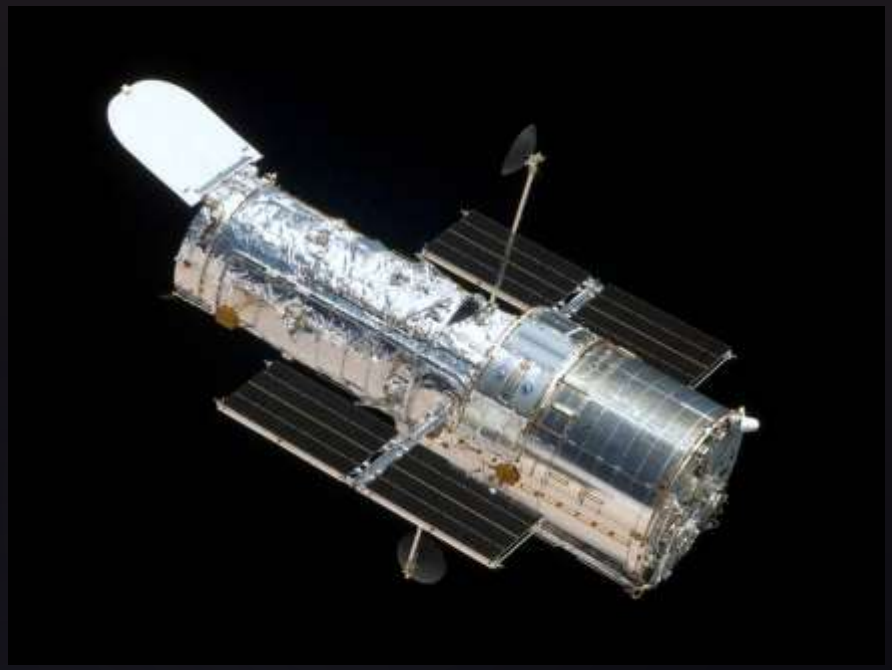
STARS



Pathfinder Honour

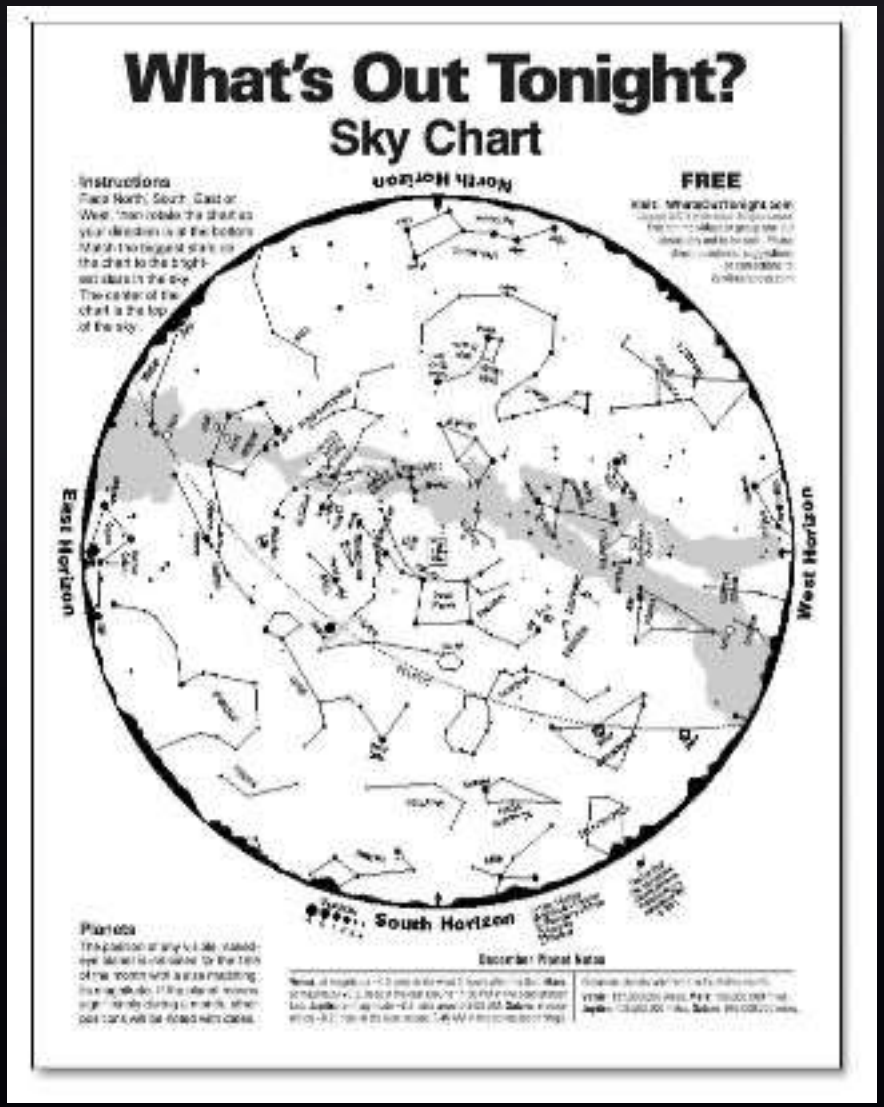
Credit: Janelle C, NAD


EXPLORER


PATHFINDER
EXPLORER
Achievement Class
Curriculum
Requirements &
Developed Resources

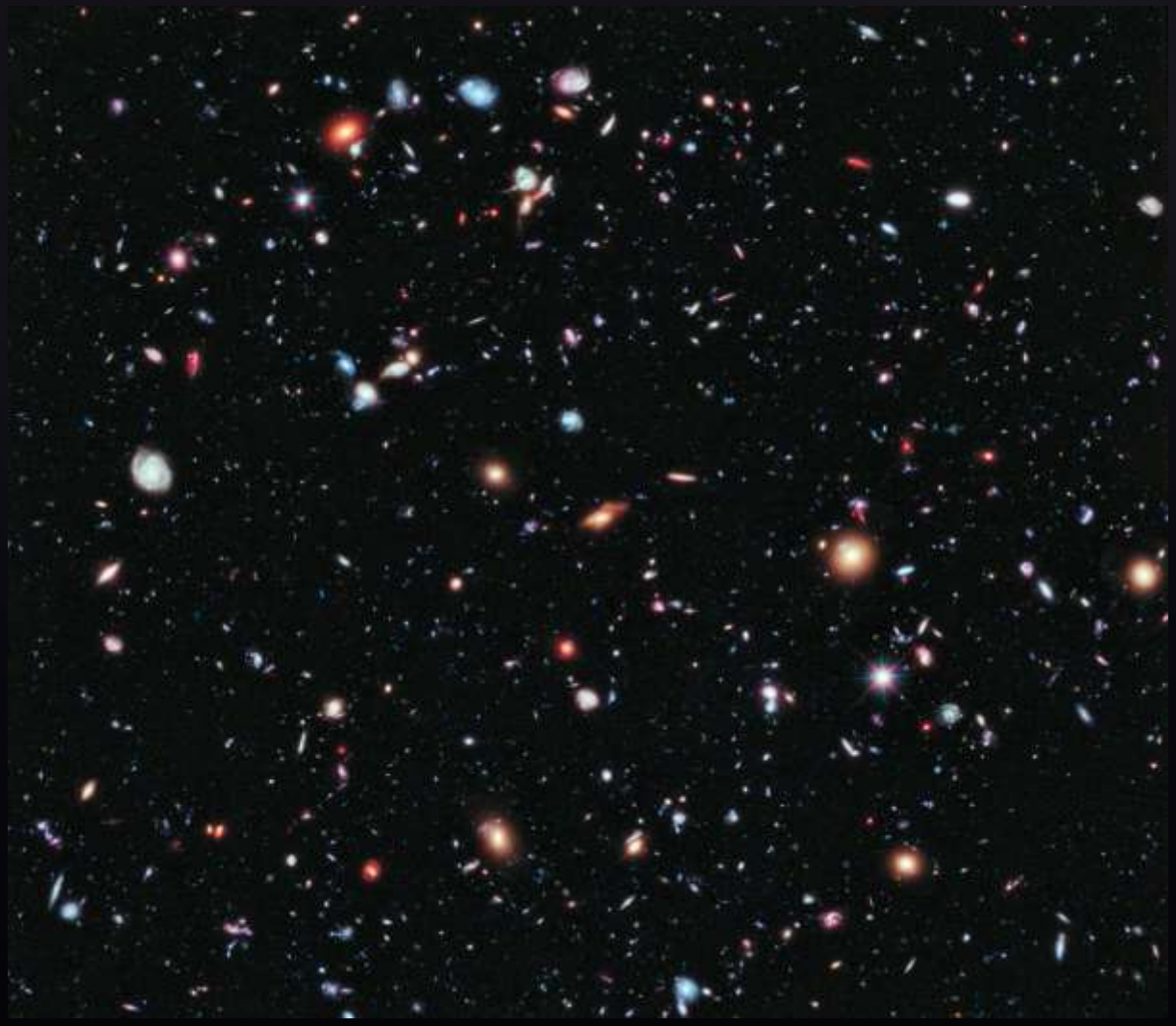
What you will need: Starchart App

What you will need: What's Out Tonight? June 2020 Sky Chart - http://whatsouttonight.com

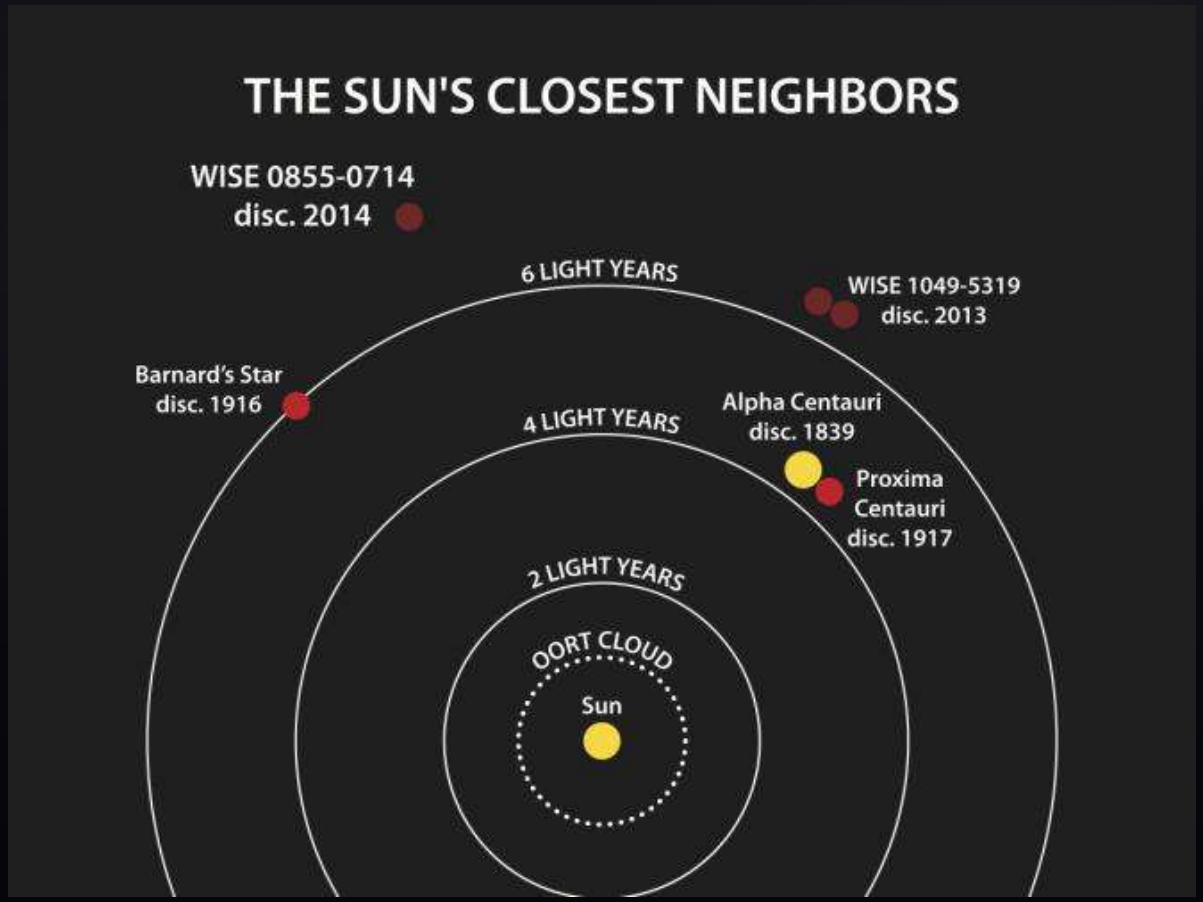


Some Mind-blowing Facts about Stars

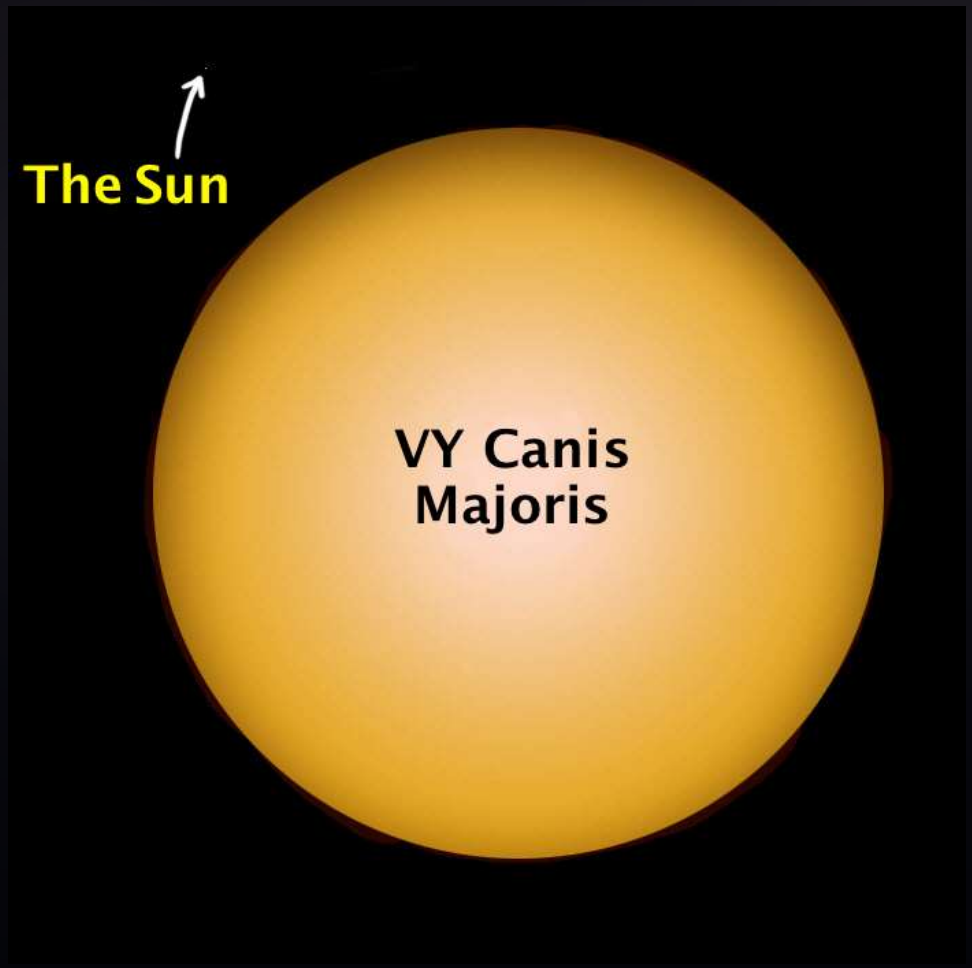
There are over 10,000 in this image, each one containing around 100 billion stars



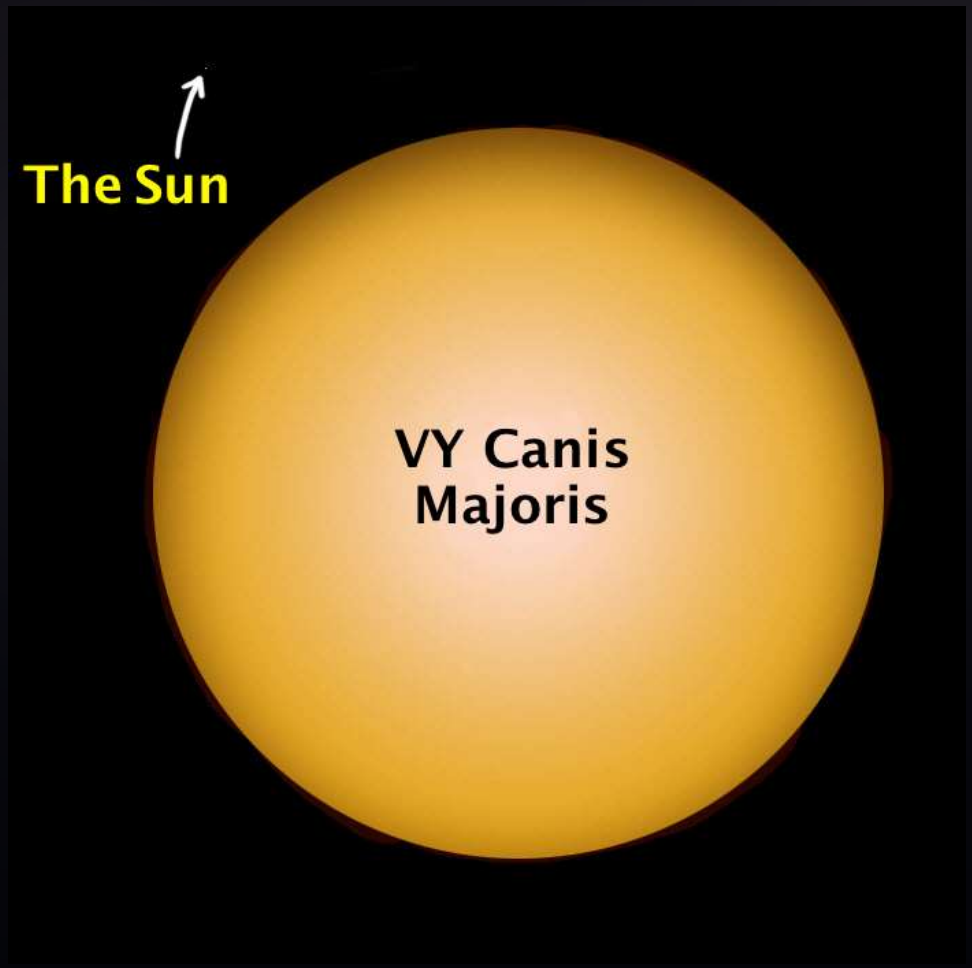
Our sun is no exception—the closest star to us, Proxima Centauri, is 4.24 light years away, or 70,000 years away in our fastest spacecraft.



How huge are some stars?



1,420 of our suns on top of each other, you'd have the diameter of VY Canis Majoris



Q: What is the earth's nearest celestial neighbour?

A: The moon

Q: What is its distance from the earth?

A: about 240,000 miles

Click for Q & A

Q: What (object) governs the tide?

A: The moon

Click for Q & A

Q: What causes an eclipse?

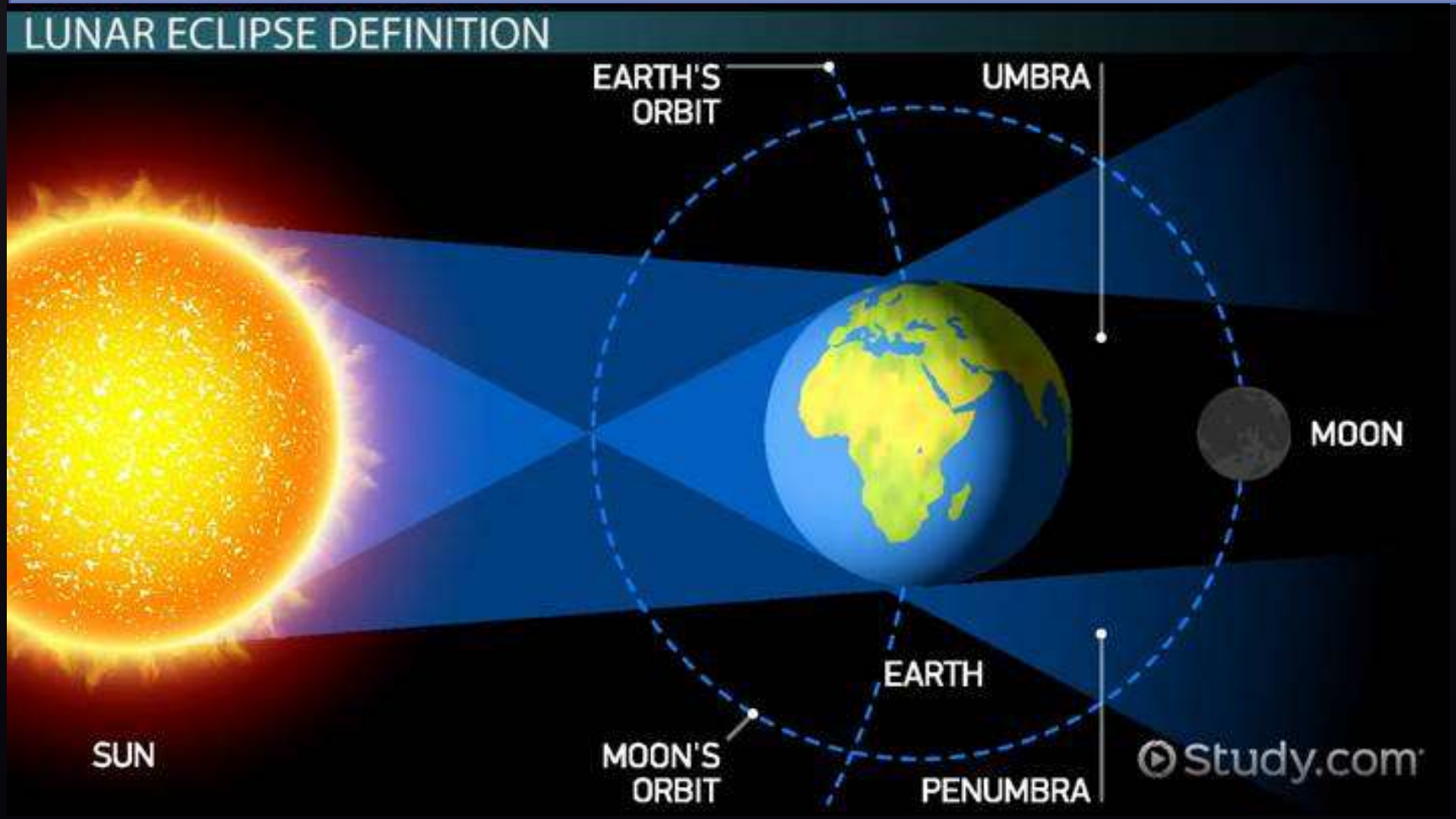
A: A shadow of one celestial object falls on another

Click for Q & A

Do it: Showing the relative positions and movements of the earth, sun and moon.

Show how an eclipse happens

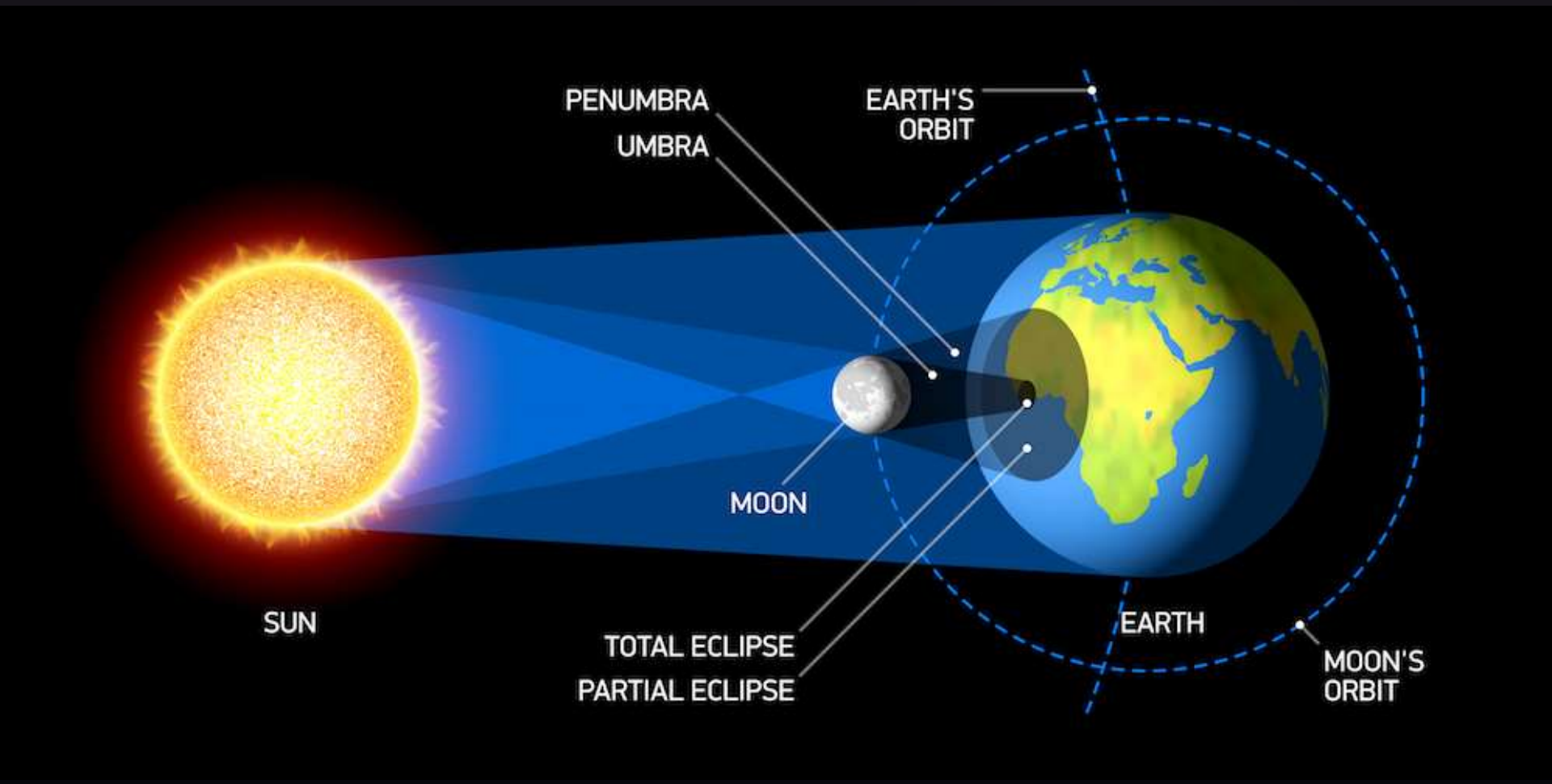
What eclipse is this?



https://study.com/academy/lesson/lunar-eclipse-lesson-for-kids-definition-facts.html

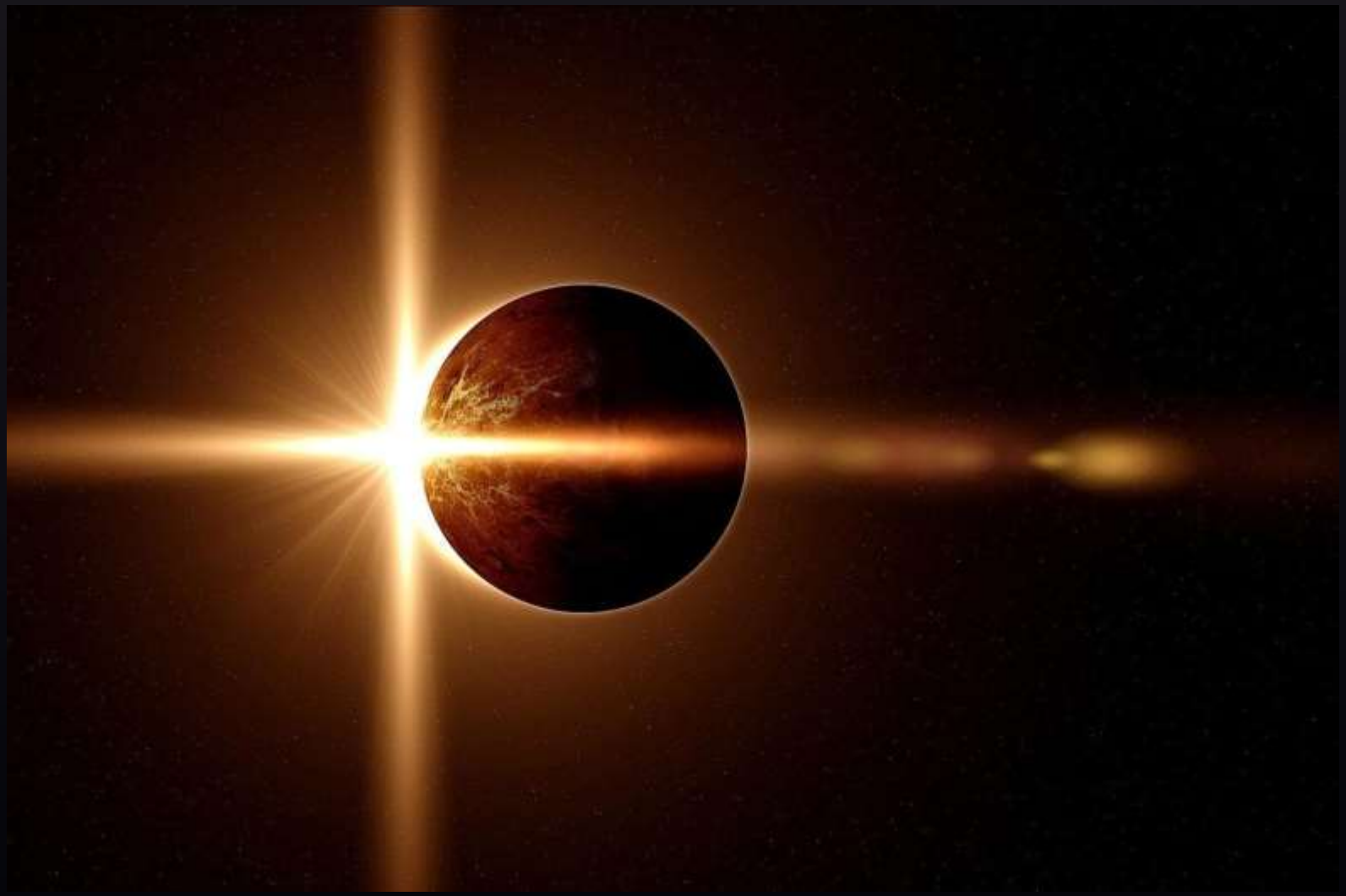
https://photographingspace.com/total-lunar-eclipse/

What about this?

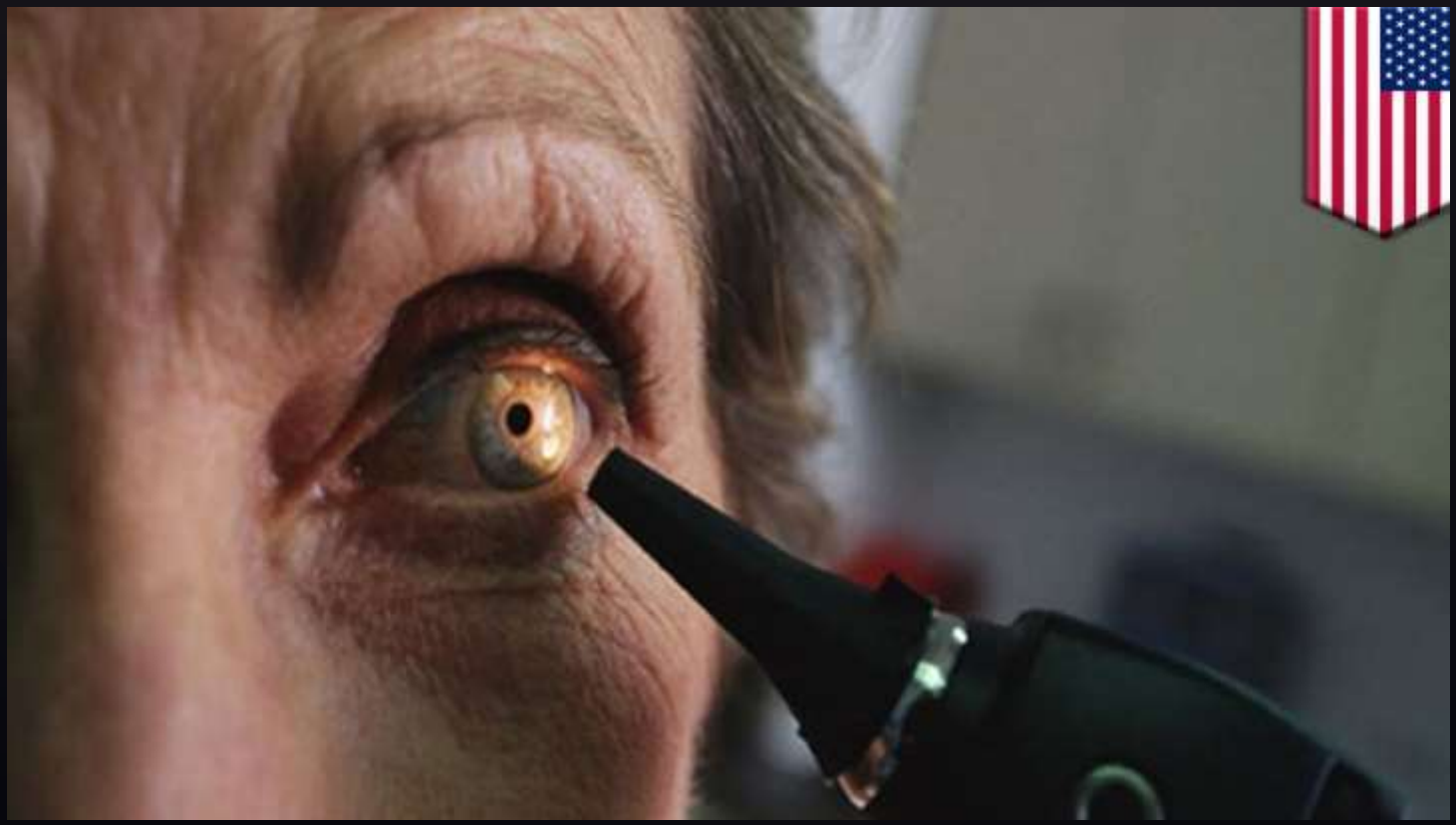


https://www.mathworks.com/matlabcentral/mlc-downloads/downloads/ae5b6768-c679-4887-9116-170d6a8136cf/d8723bb2-5b74-4851-b6a5-d282ab5e4ba4/images/screenshot.png

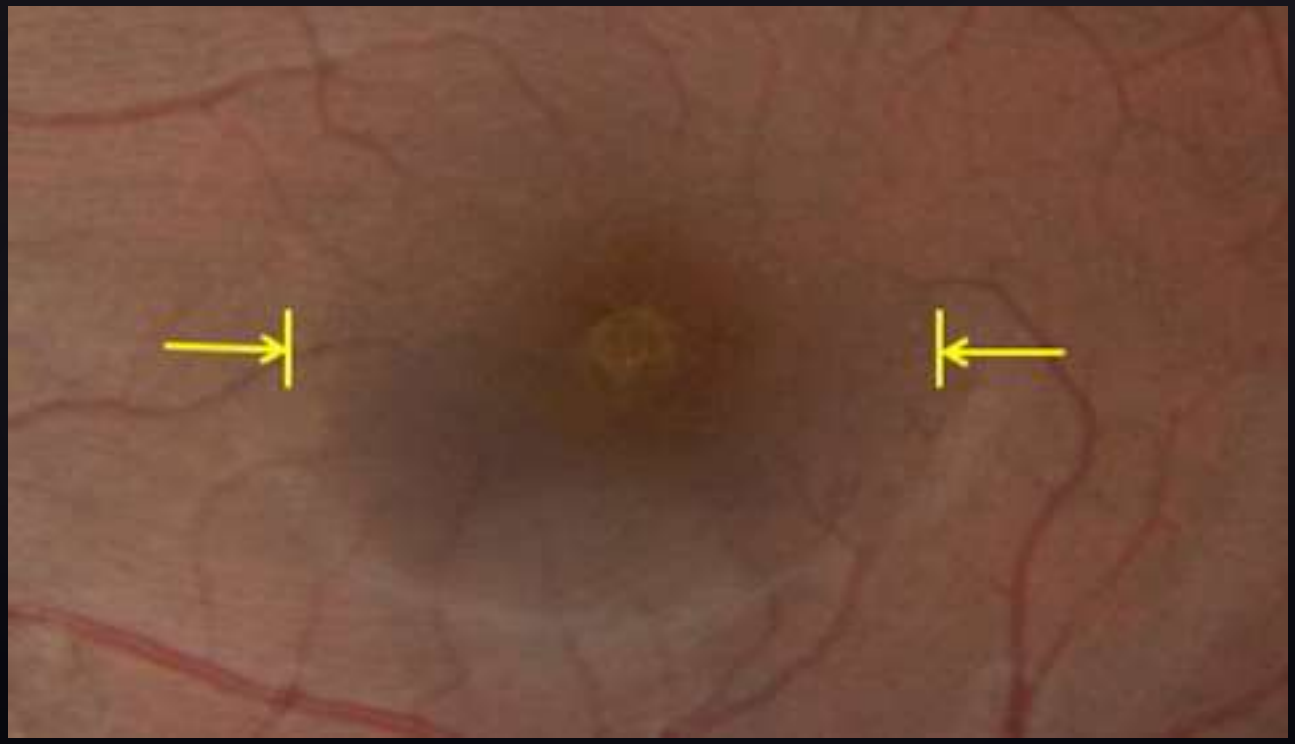
Solar eclipse



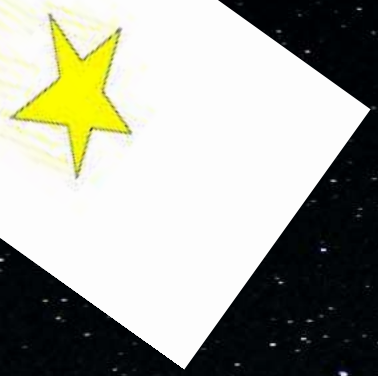
Solar eclipse and Eye health



Solar eclipse and Eye health



For a young woman who stared too long on August 21st, the partially eclipsed Sun left a lasting impression — on her retinas.



Q: What is a shooting star?

A: Actually it's not a star. It is a meteor that falls to the earth. When they burn up in the atmosphere they leave a bright, short-lived streak in the sky.

Click for Q & A

Q: How fast does light travel?

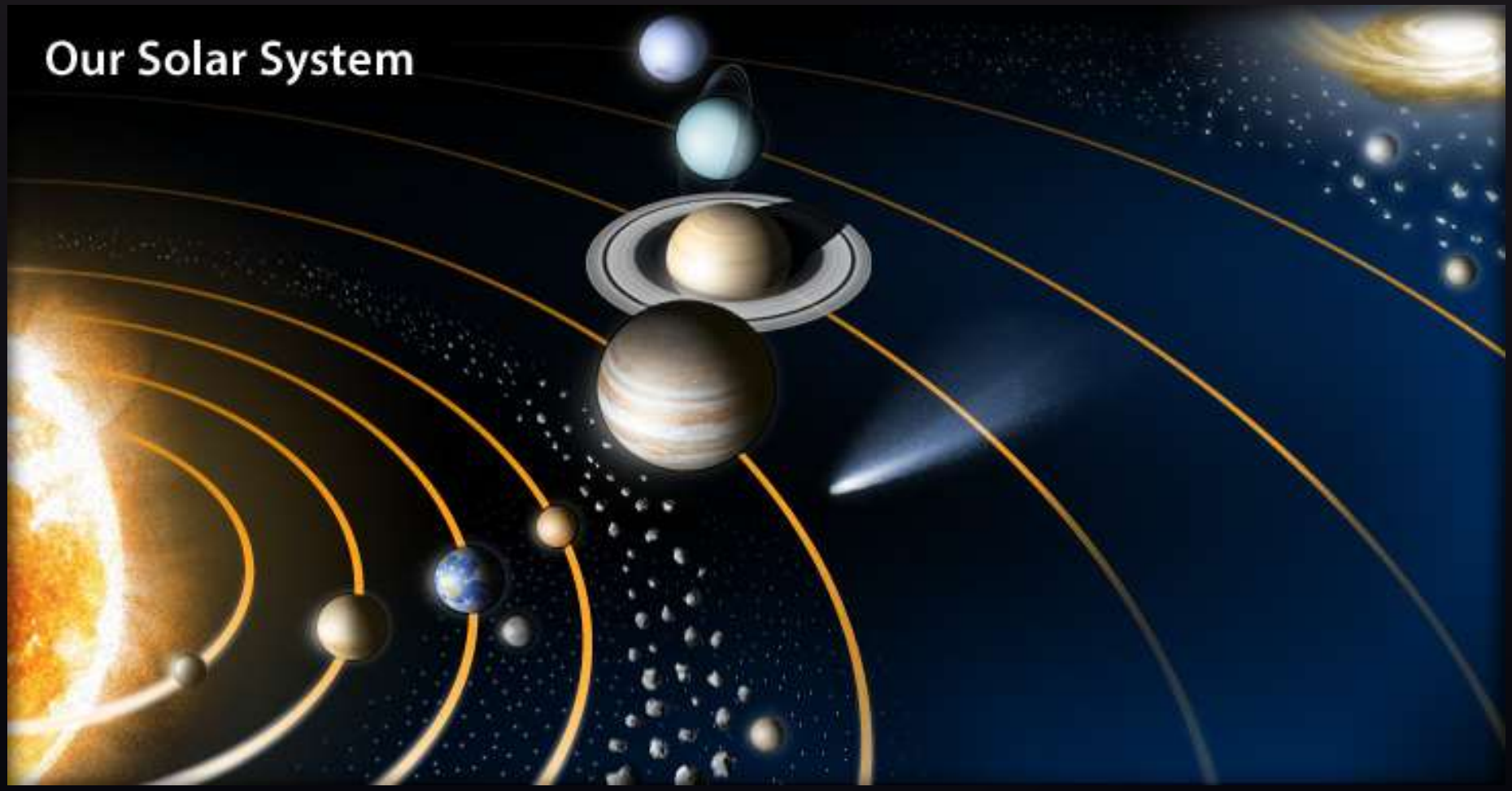
Clue: 90x2+6 x1000

A: 186,000 miles per second

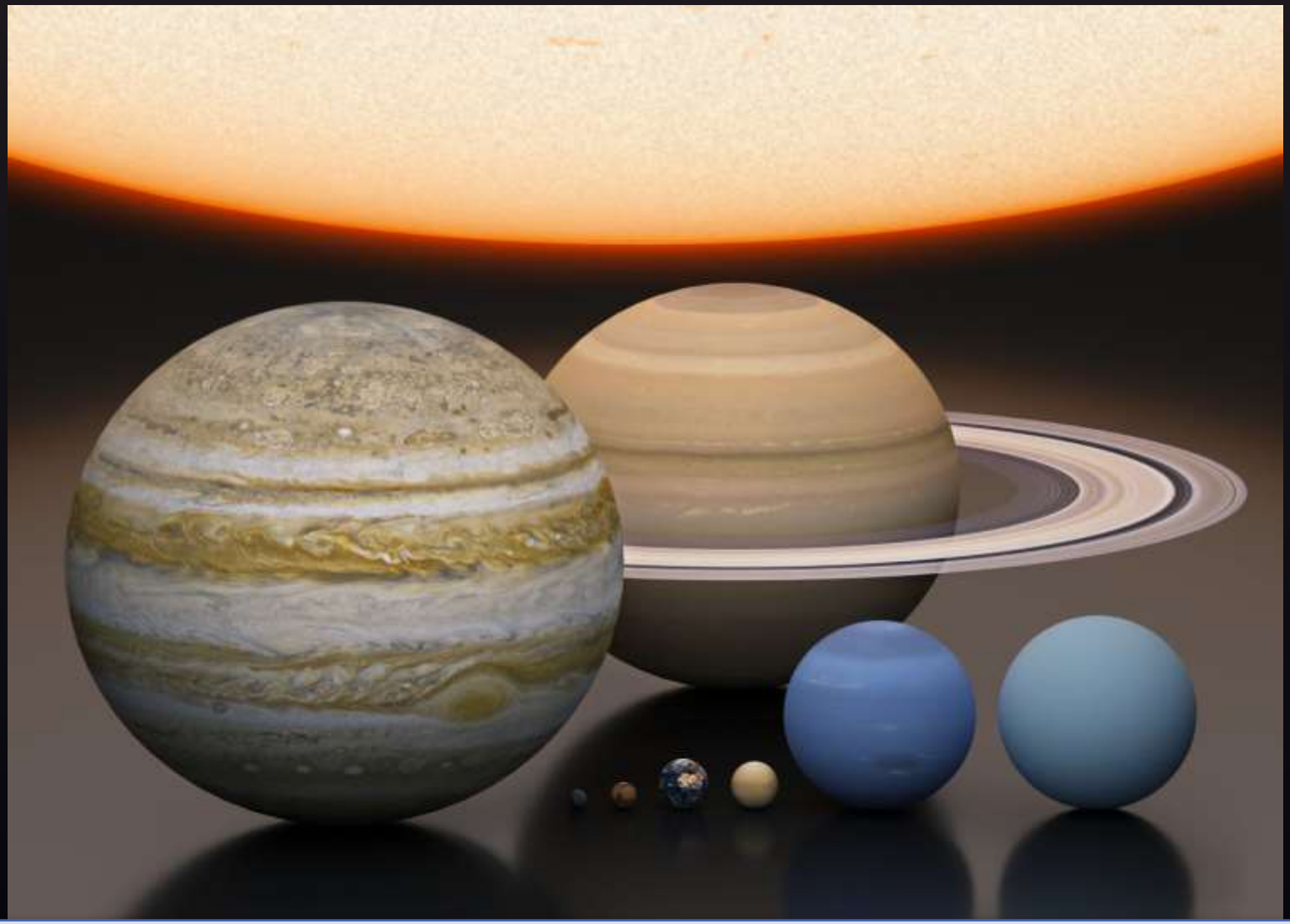
Q: How far does light travel in a year?

A: 5.88 trillion miles (Which is a light year)

Click for Q & A

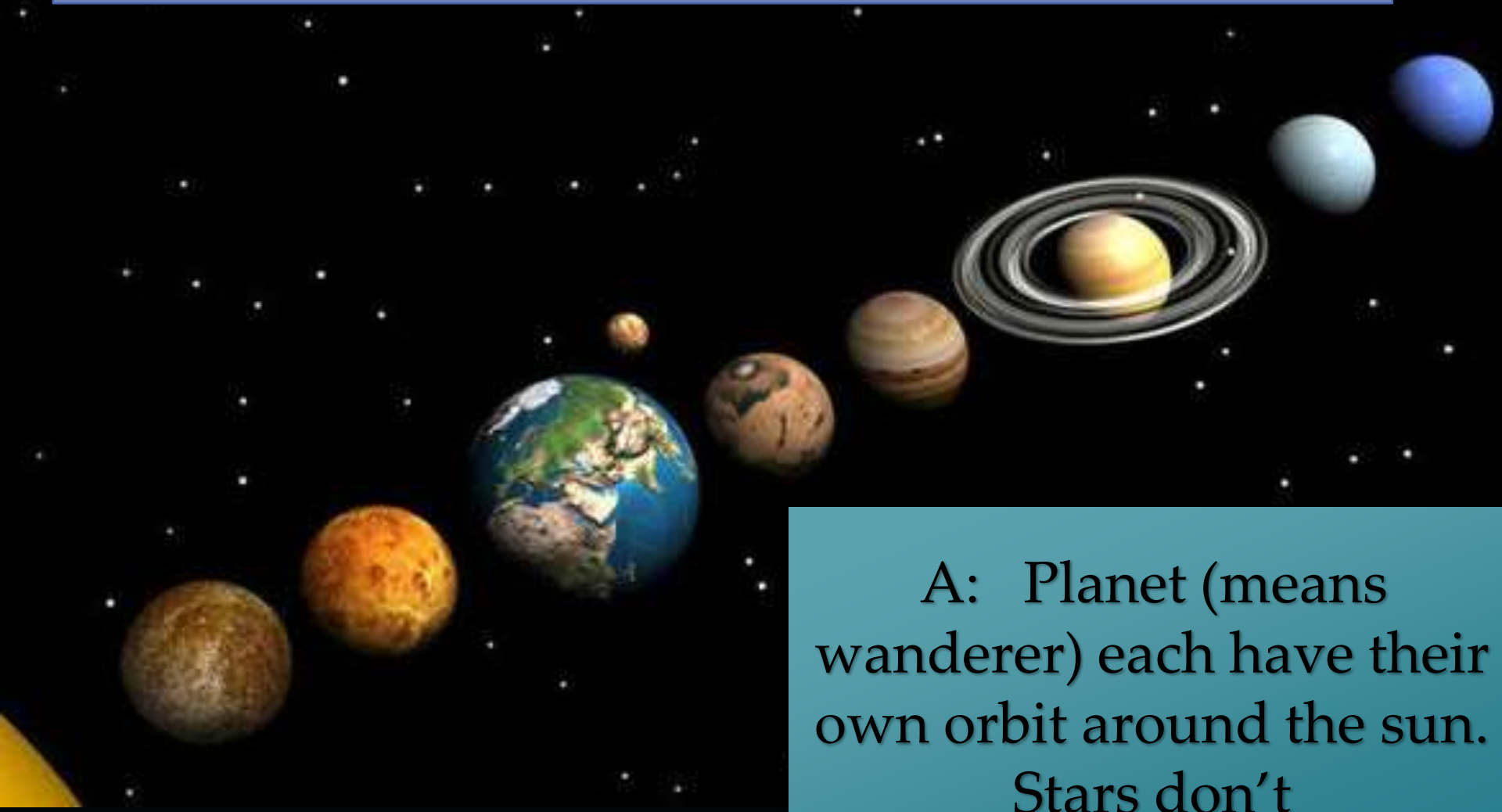


Q: What are the planets? Make a diagram



Remembering the planets: My Very Educated Mother Just Showed Us Nine Planets but one

Q: What is the difference between planets and fixed stars?

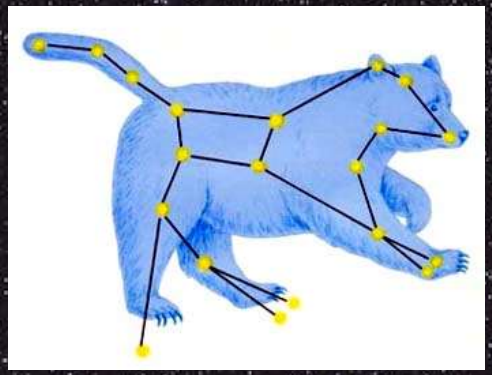


Click for Q & A

A: Planet (means wanderer) each have their own orbit around the sun. Stars don't

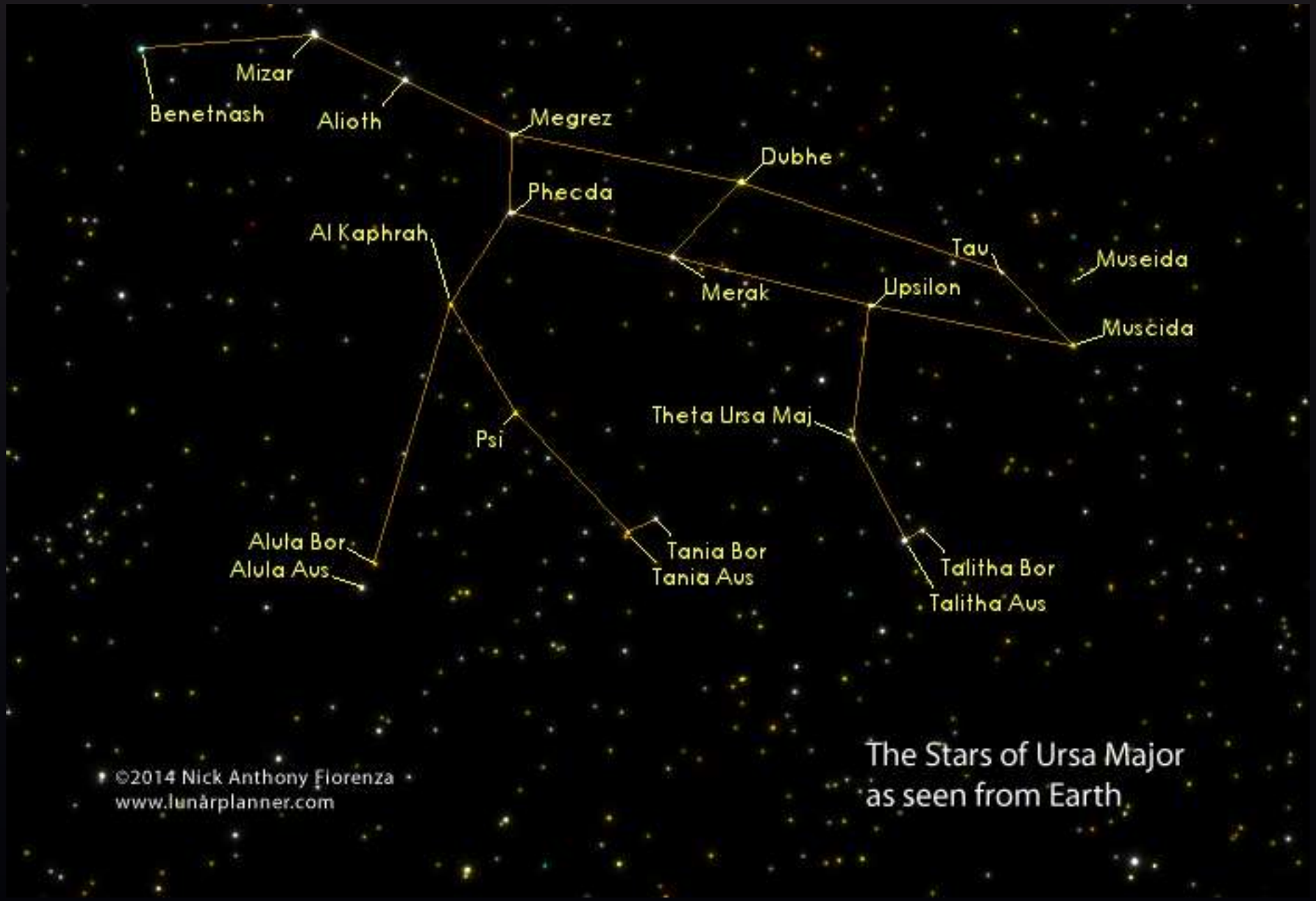
Can you find it?

Big Dipper



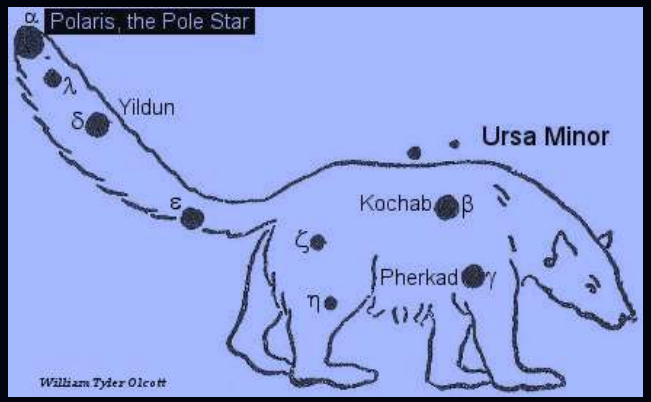
Ursa Major

Click for Answer


Mizar
Benetnash
Alioth
Megrez
Dubhe
Phecda
Al Kaphrah
Merak
Tau
Museida
Upsilon
Muscida
Theta Ursa Maj
Psi
Alula Bor
Alula Aus
Tania Bor
Tania Aus
Talitha Bor
Talitha Aus
©2014 Nick Anthony Fiorenza
www.lunarplanner.com
The Stars of Ursa Major
as seen from Earth

Can you find it?

Little Dipper

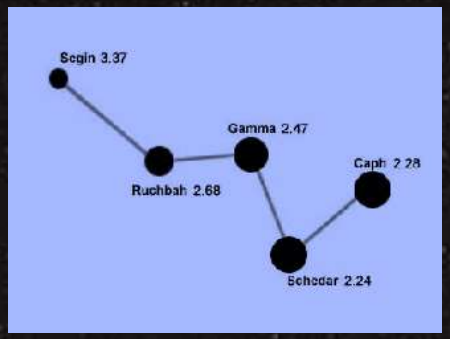


Polaris – North Star

Click for Answer

Ursa Minor

Can you find it?

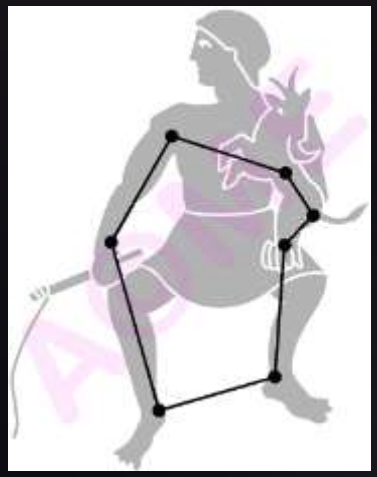


Gamma

Cassiopeia

Click for Answer

Can you find it?



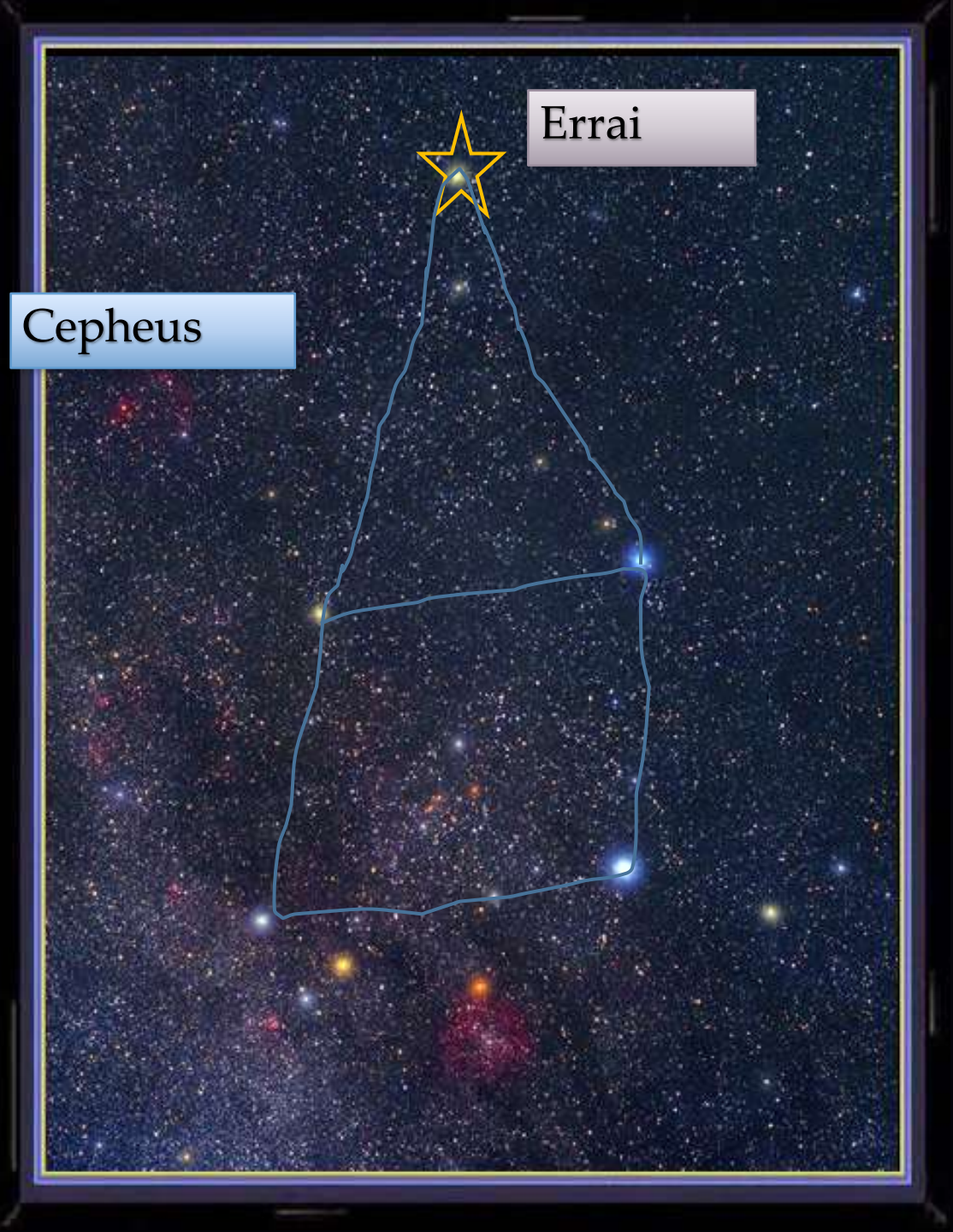
Auriga

Capella

Can you find it?

Cepheus - the King
(Spring Constellation)
Cassiopeia's Husband
Looks like a house

Click for Answer



Can you find it?

Bootes

Arcturus

Betelgeuse

Bellatrix

Orion

Rigel

Can you find it?

From Ellen White Early Writings p. 41

"The atmosphere parted and rolled back; then we could look up through the open space in Orion, whence came the voice of God. The Holy City will come down through that open space."

Can you find it?

The Milky Way

Click for Answer

The Morning Star

The Evening Star

Can you find it?

It is actually Venus. It never appears on the opposite horizon from the sun due to its relative location to the sun.

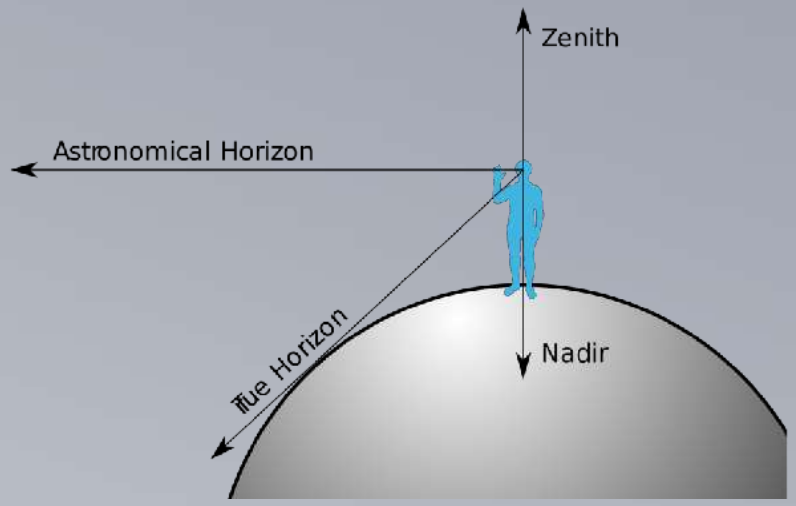
Click for Answer

Q: What is the aurora borealis?

Q: What causes it?

The Aurora Borealis (Northern Lights) and Aurora Australis (Southern Lights) are the result of electrons colliding with the upper reaches of Earth's atmosphere. (Protons cause faint and diffuse aurora, usually not easily visible to the human eye.)

Explain zenith and nadir



Congratulations!
You earned the STAR HONOR

Our Great Creator loves YOU