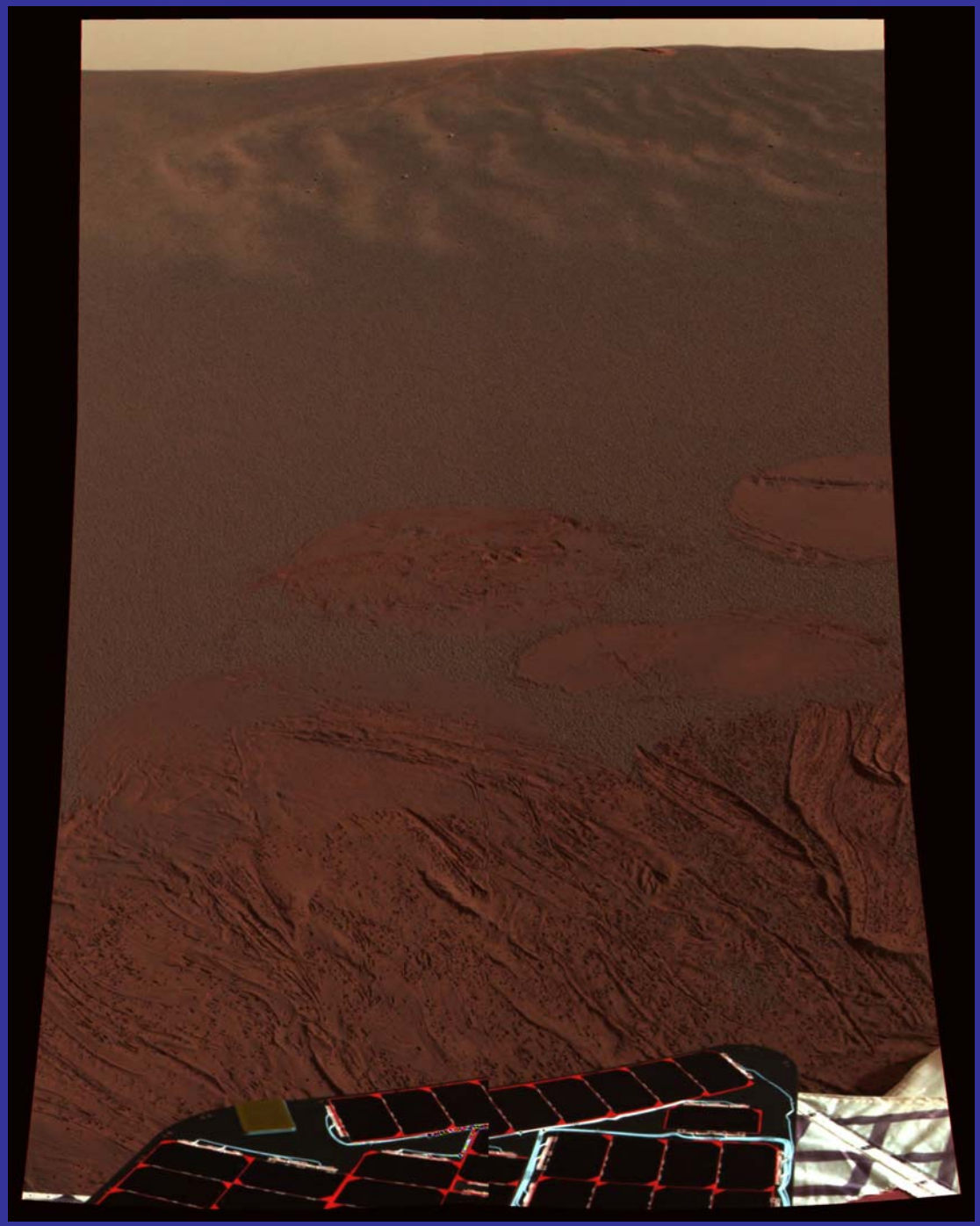
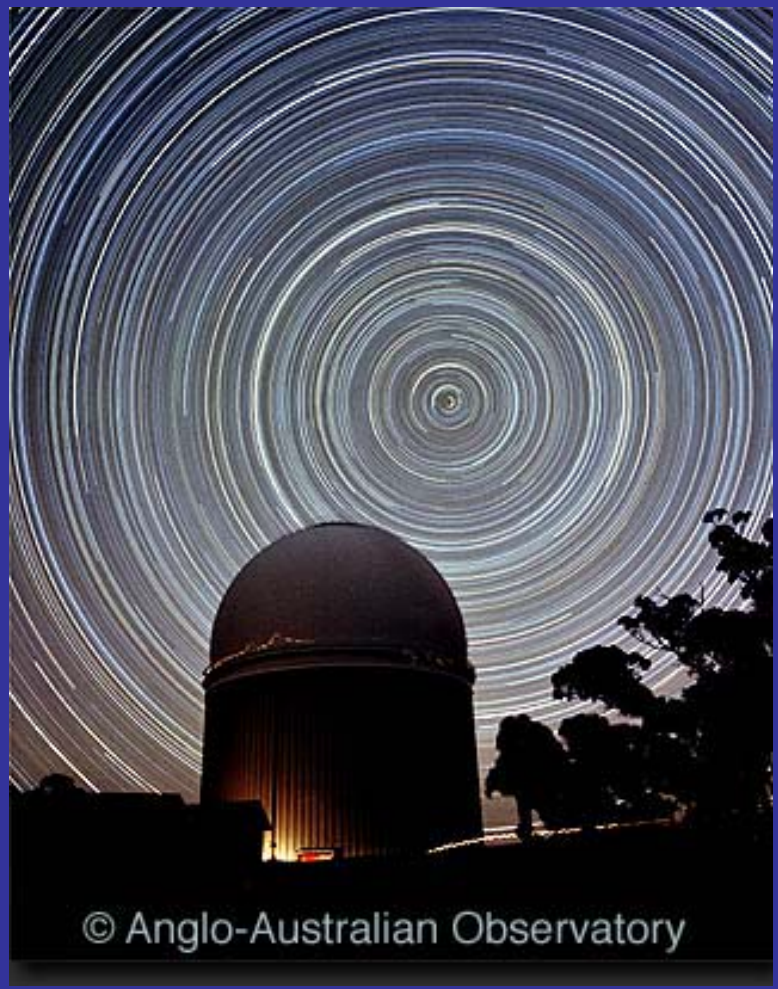


Opportunity Has Landed!

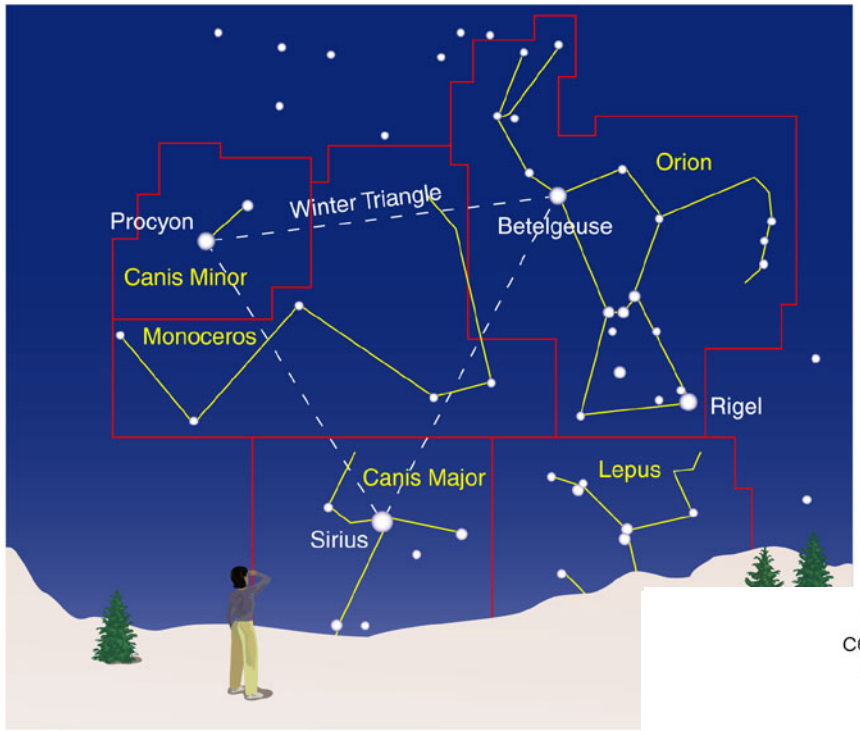
Bit of Administration ….

- Correction to Final Date on Syllabus
  - Sunday, May 9, 12:25
- Tuesday afternoon (2:25) section
  - Come to planetarium, not 6515 Sterling
  - Sterling elevator to 6th floor, then up stairs
- Bring Flashcards to Discussion Section
  - Extra credit
- Honors - In progress

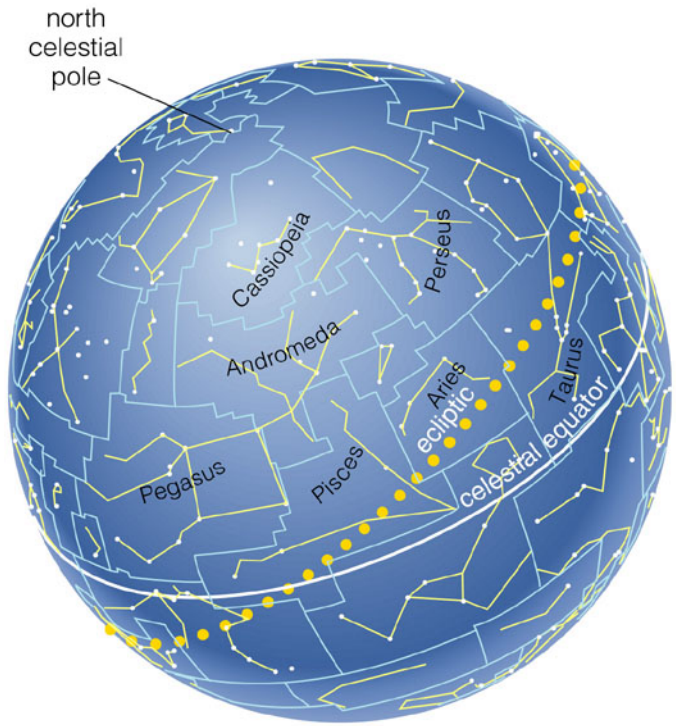


Motions in the Sky

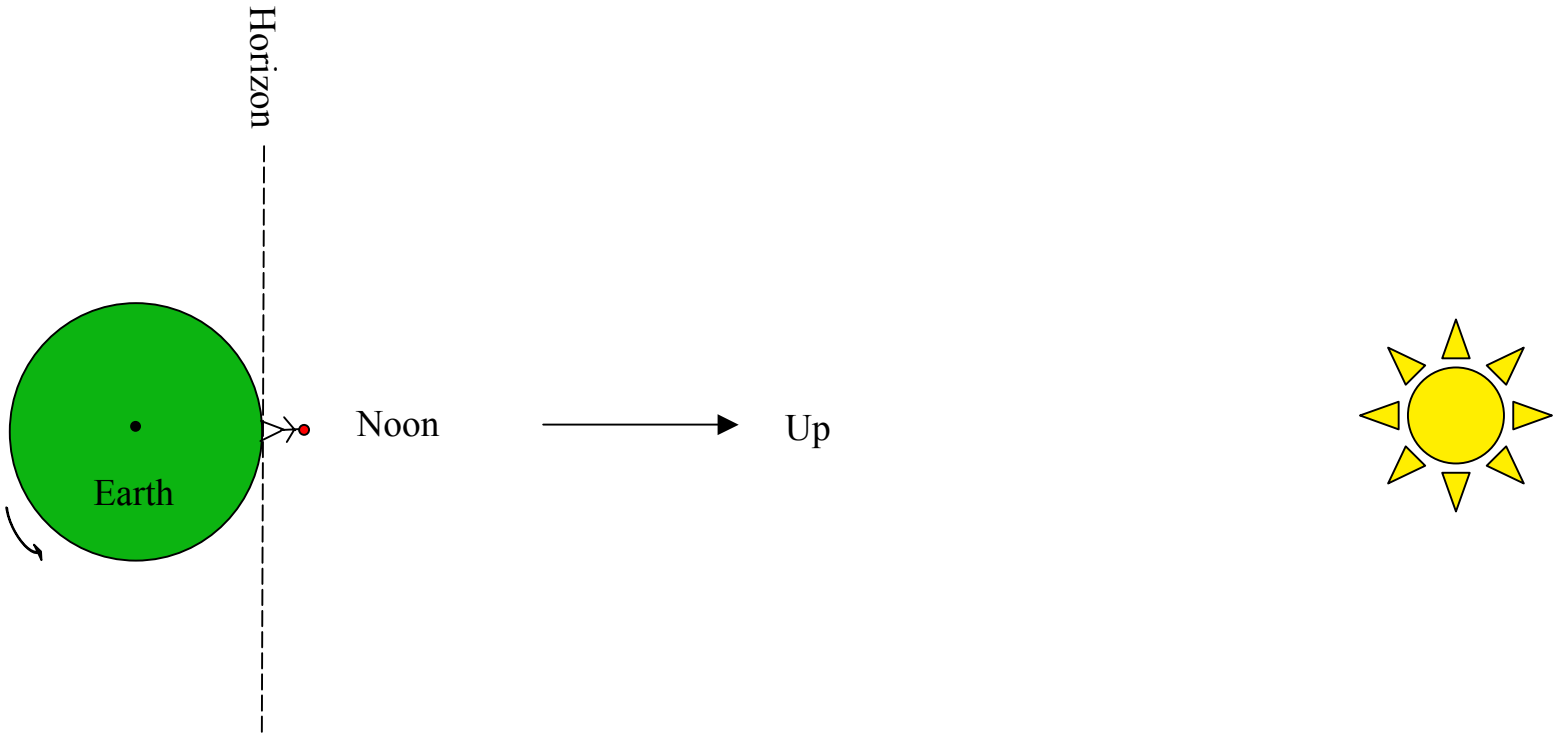
Constellations



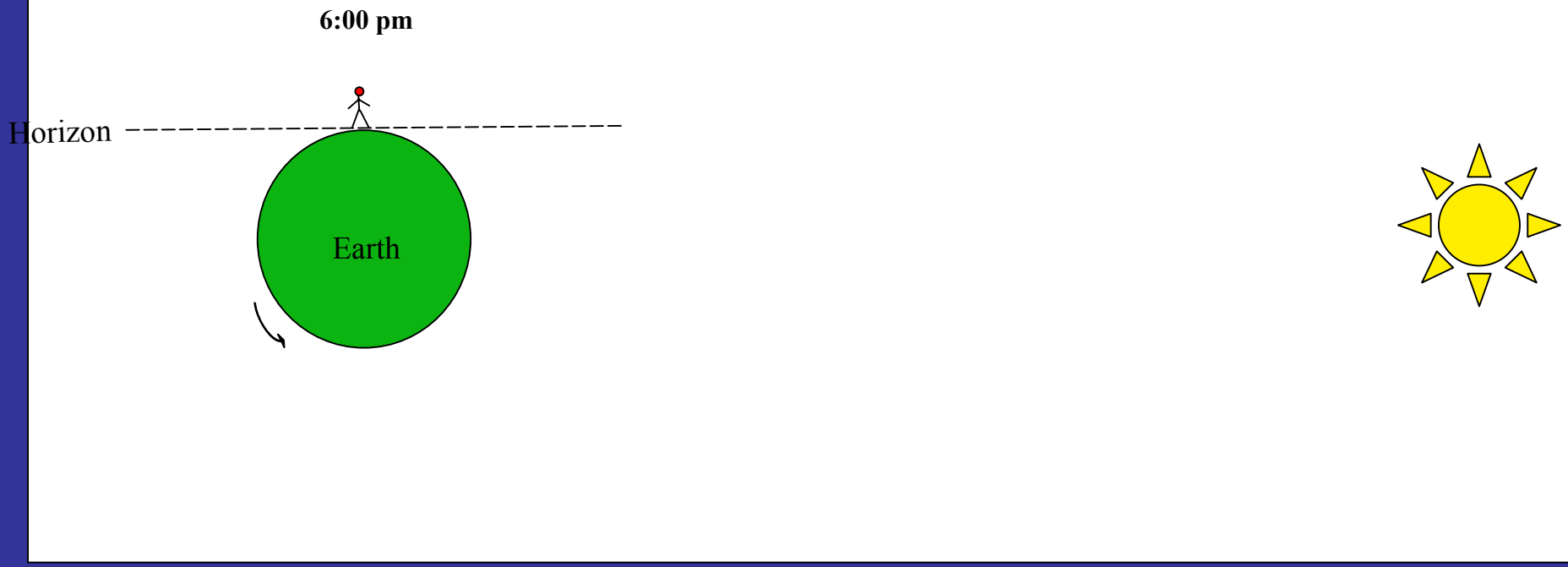
Celestial Sphere



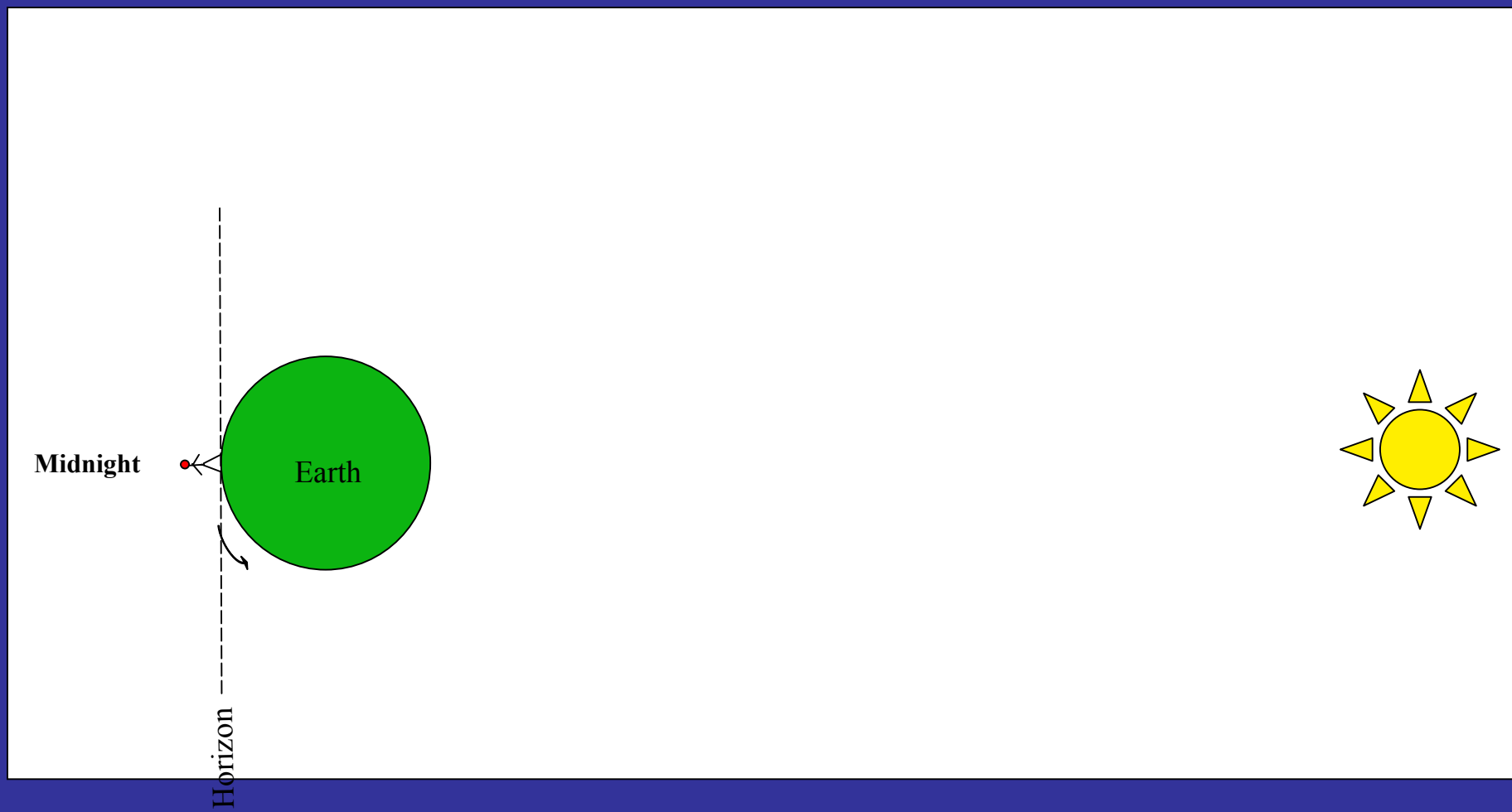
Time and Space in the Solar System

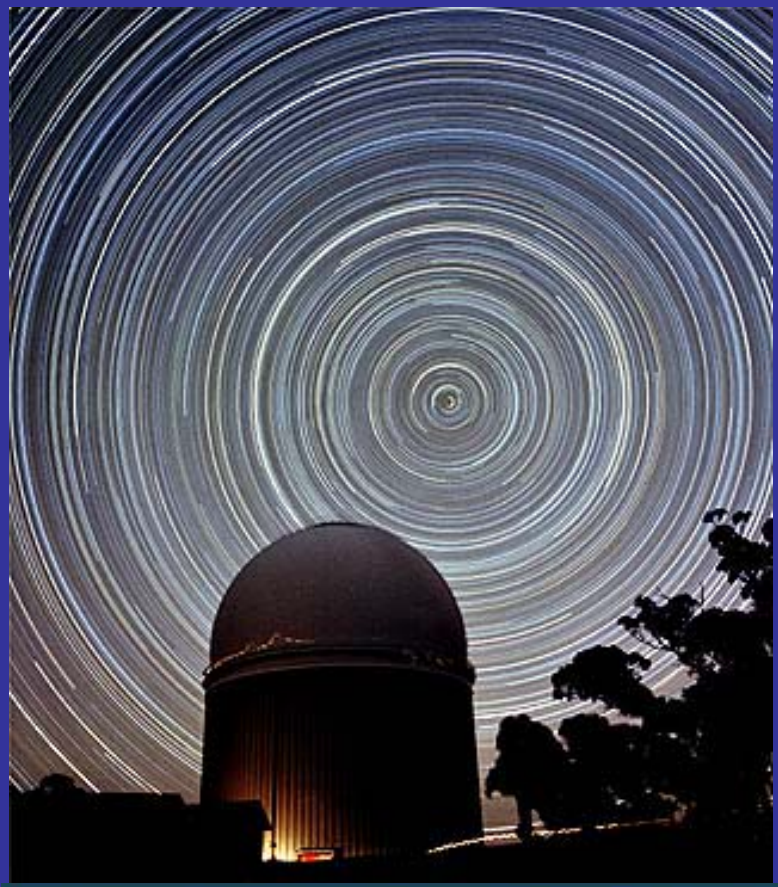


Time and Space in the Solar System



Time and Space in the Solar System





Daily Motion

- **Every celestial object - Sun, Moon, planets, stars - appears to circle the Earth in**

ONE DAY

- **Due to Earth rotating once in one day**

Solar Motion

- **The Sun appears to move**

TO THE EAST RELATIVE TO THE STARS

about 1 degree per day.

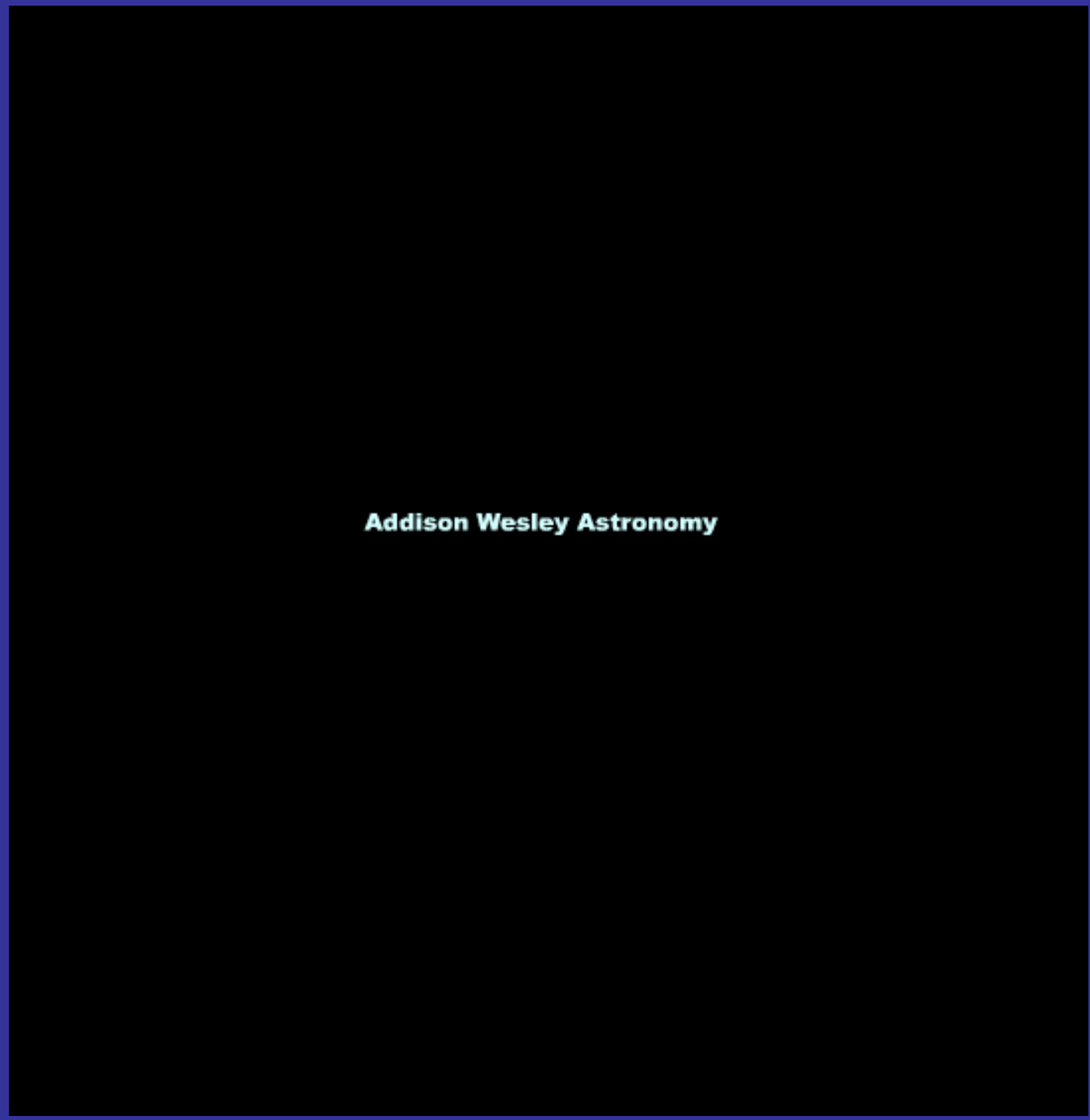
- **The Sun's path in the sky is called the ecliptic; the constellations along the ecliptic are the Zodiac.**

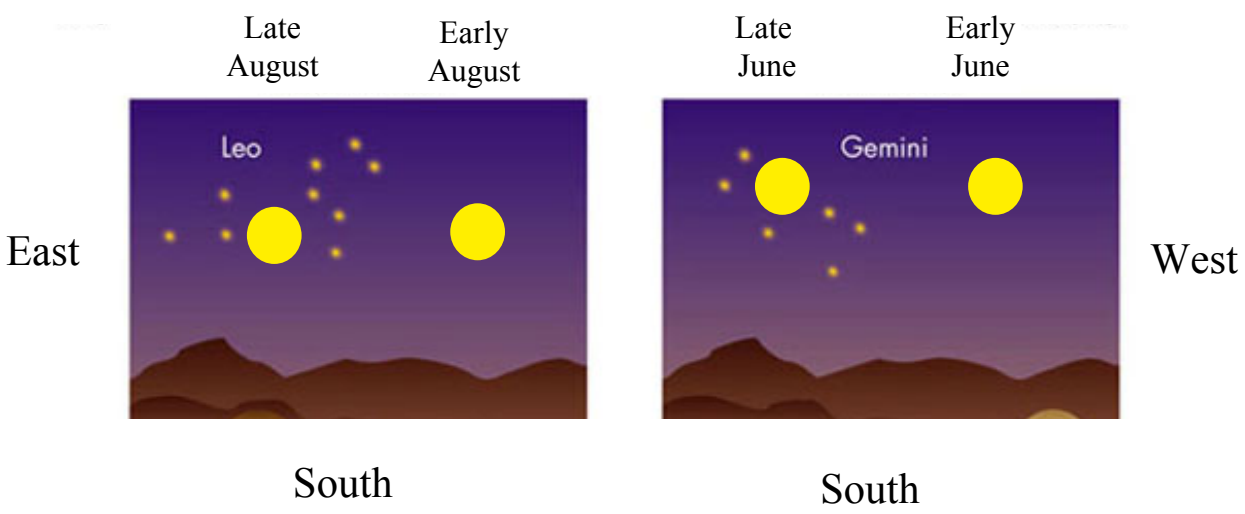
- **The Sun completes a circuit along the entire ecliptic (through all the Zodiacal constellations) in**

ONE YEAR

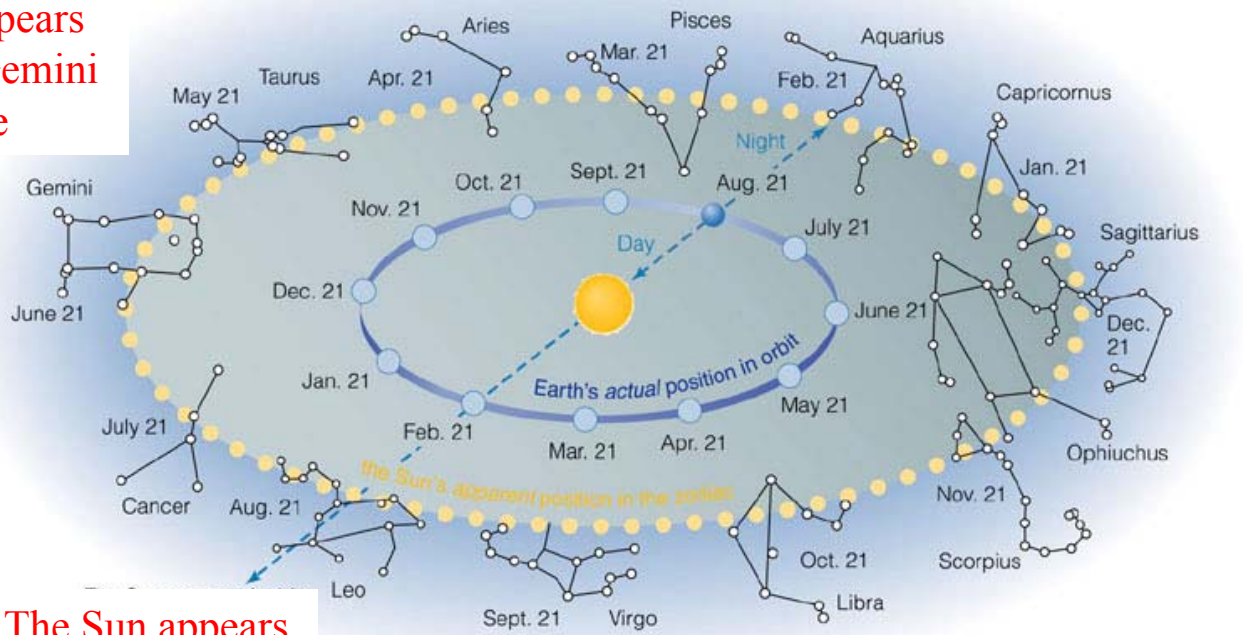
- **Due to Earth orbiting the Sun in one year.**

Phases Of the Moon





The Sun appears in front of Gemini in June



The Sun appears in front of Leo in August

ConcepTest!

Suppose the constellation of Cancer is overhead at midnight. How many months will it be until the Sun is "in" Cancer?

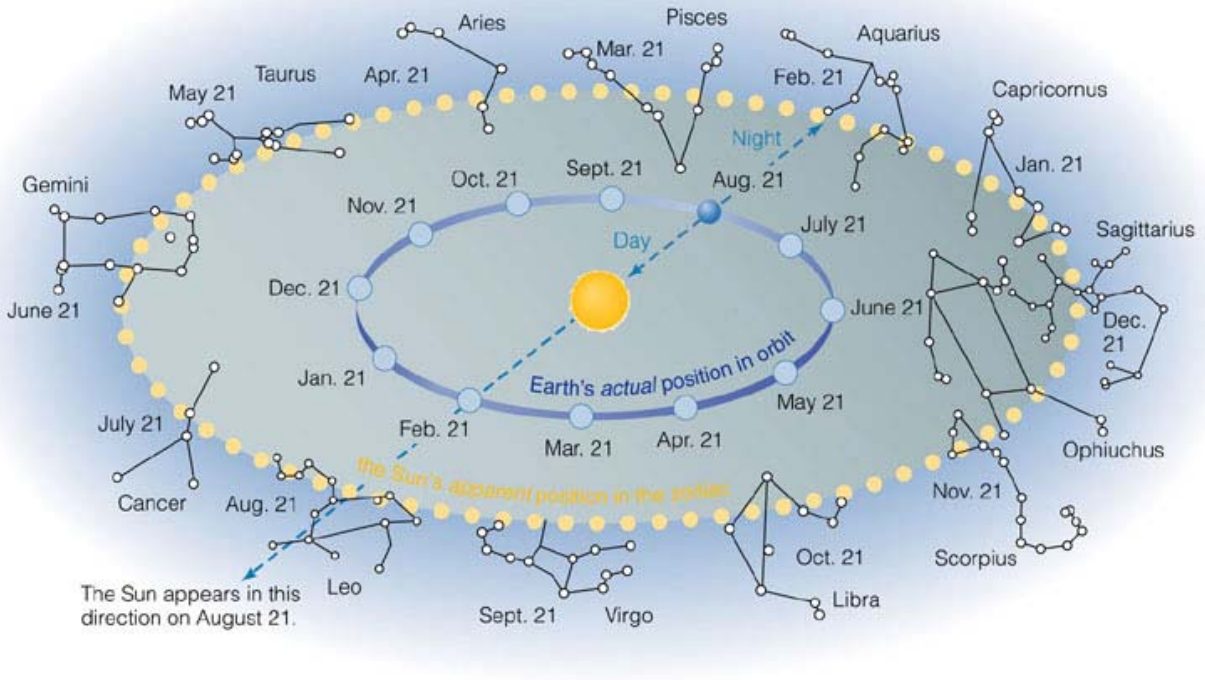
a) 0 months
b) 3 months
c) 6 months
d) 9 months?

East

West

South

South



ConcepTest!

Suppose the constellation of Taurus is overhead at sunset. How many months will it be until Taurus is behind the Sun?

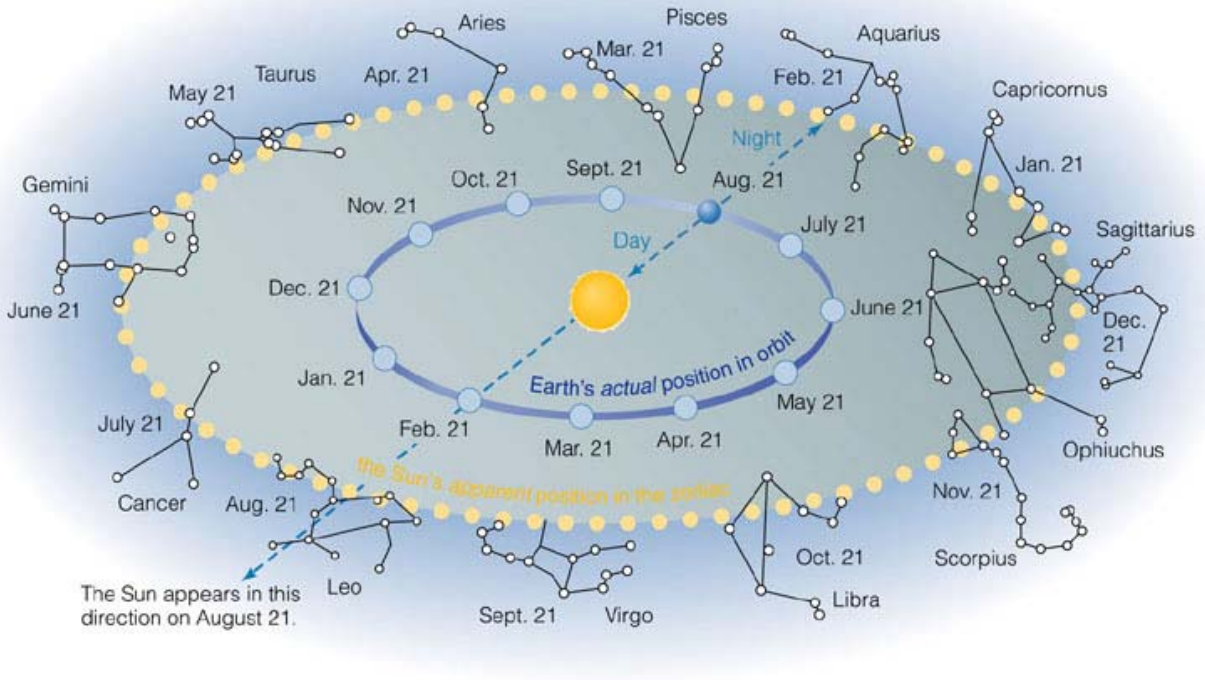
a) 0 months
b) 3 months
c) 6 months
d) 9 months?

East

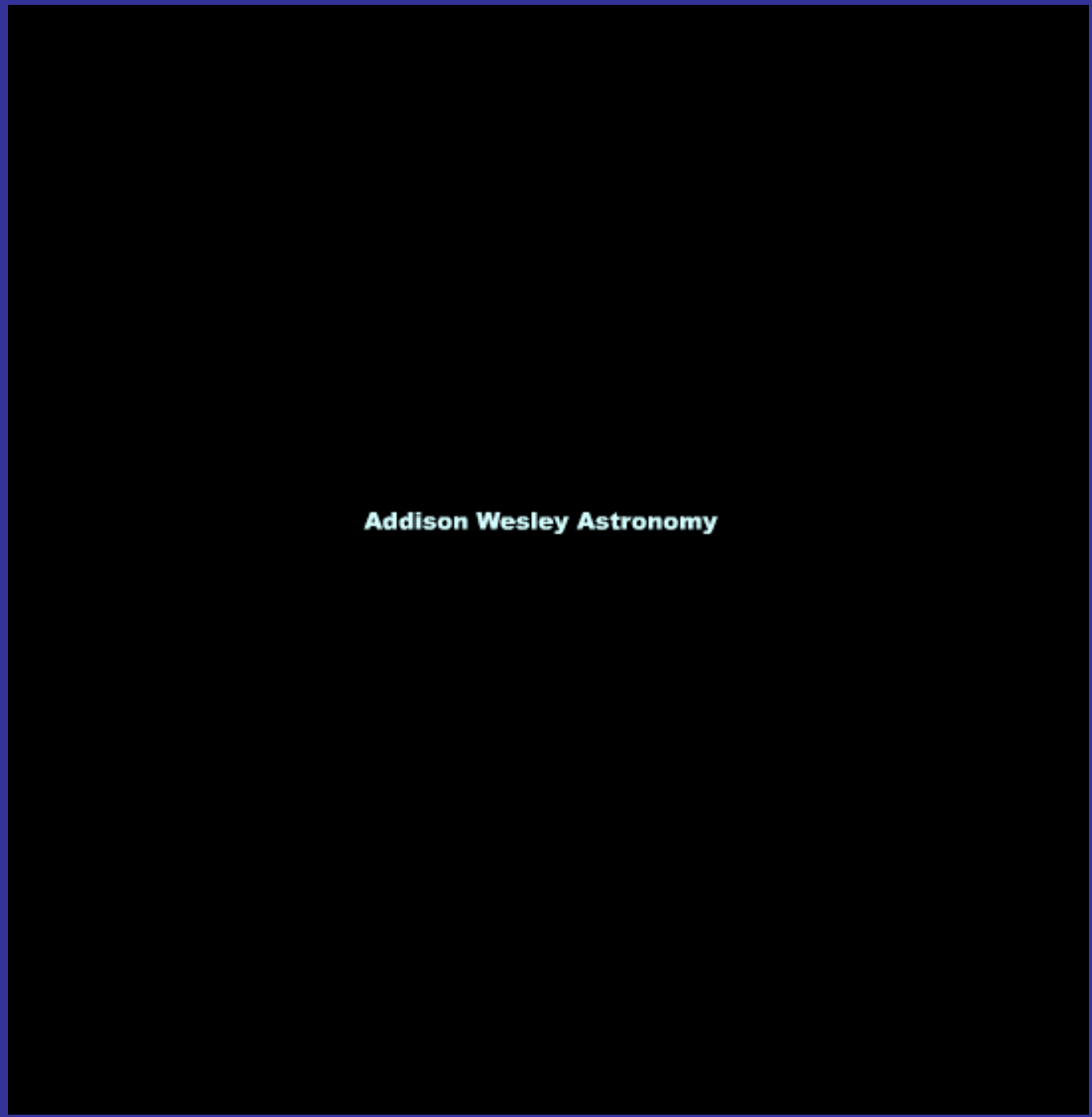
West

South

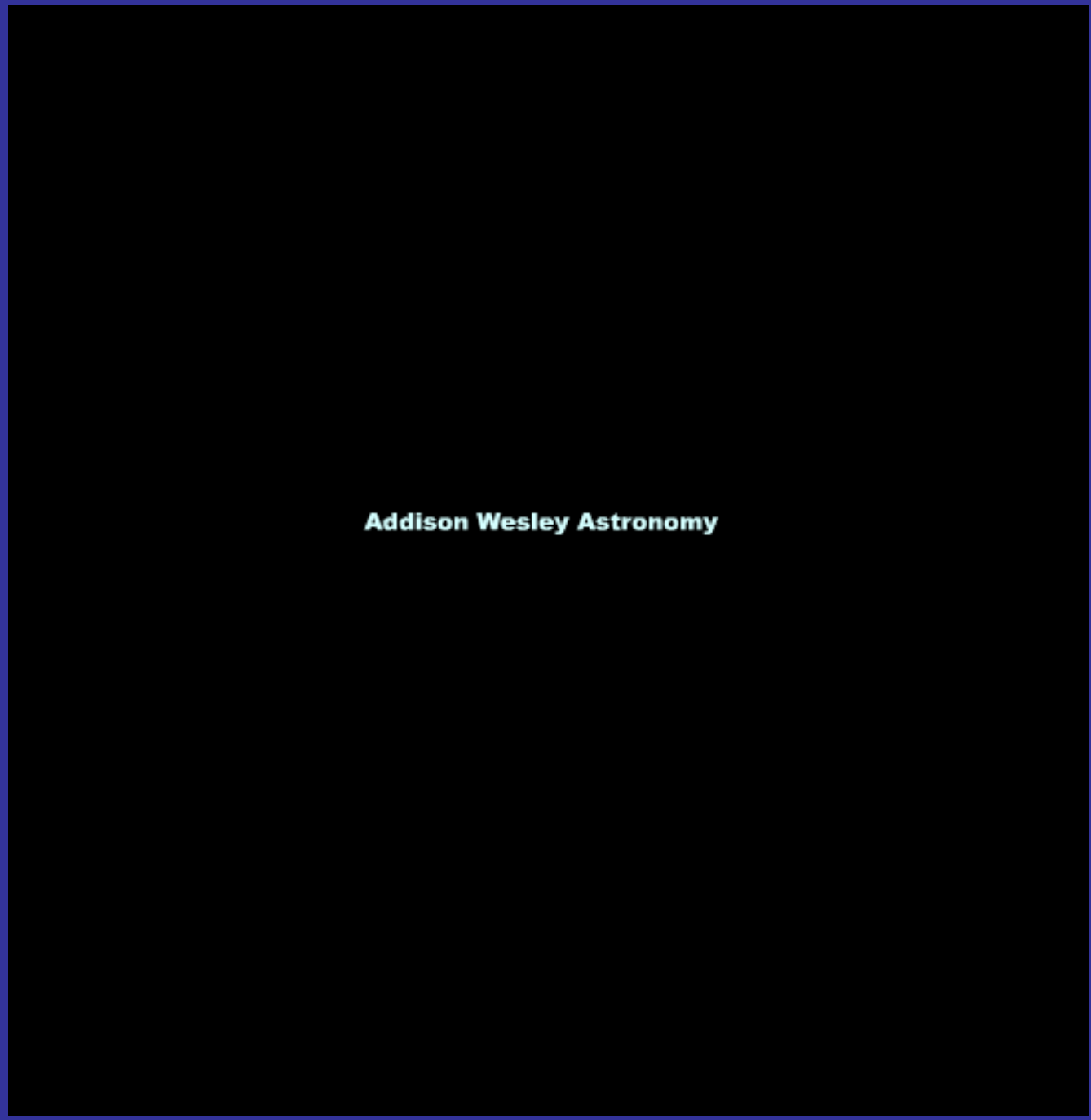
South



Phases Of the Moon



Moon Phases And Time Of Day

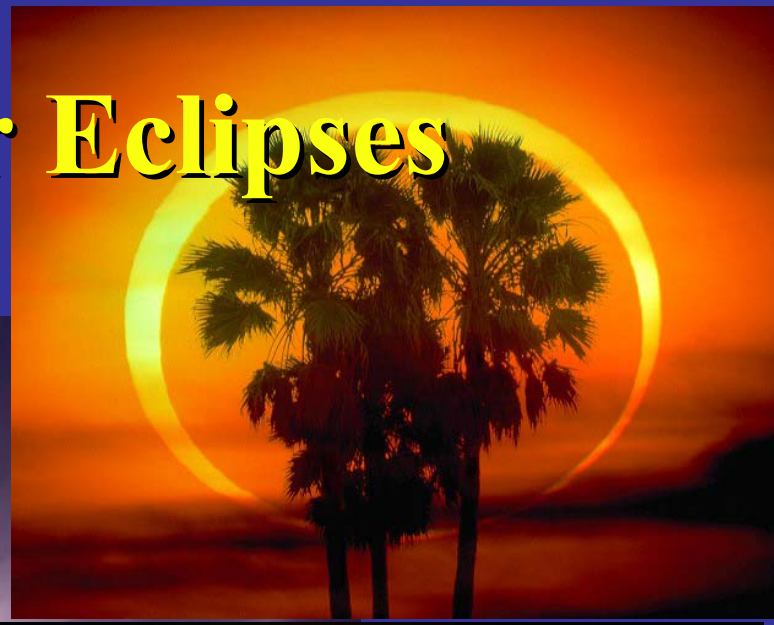


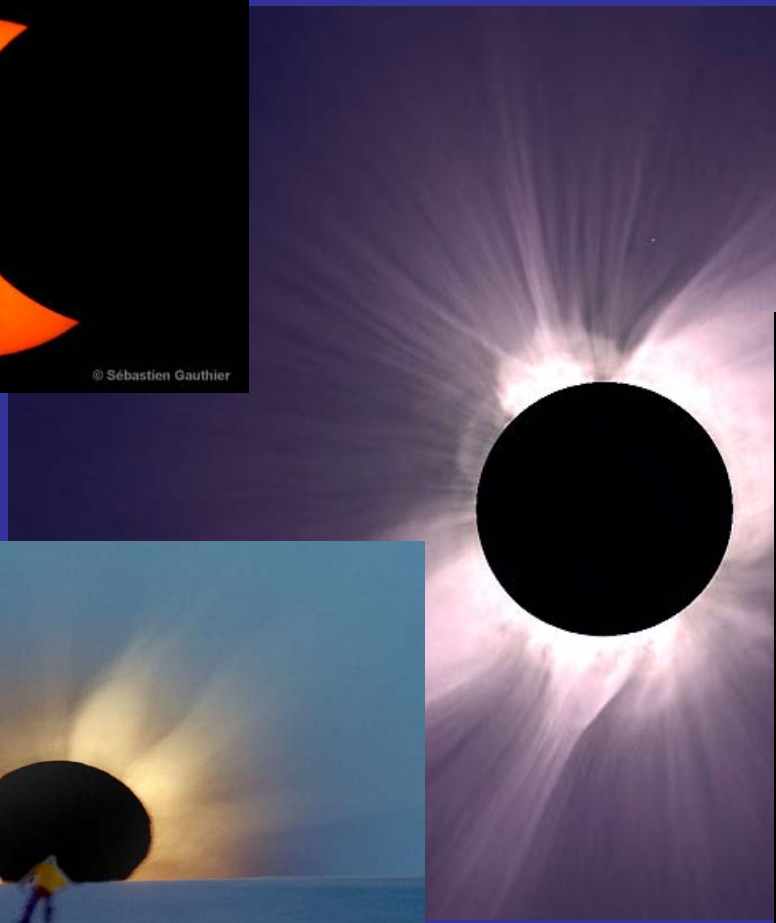
ConcepTest!

Suppose it is midnight and the moon is rising. What is the phase of the moon?

a) new moon
b) first quarter
c) full moon
d) third quarter

Solar and Lunar Eclipses





Layout Of Eclipses