



Phases of the Moon

*OBJECTS NOT TO SCALE

1 year

EARTH'S ORBIT
AROUND THE SUN

MOON'S ORBIT
AROUND THE EARTH

27.3 days

MOON PHASES AS SEEN FROM EARTH



NEW



WAXING
CRESCENT



FIRST
QUARTER



WAXING
GIBBOUS



FULL



WANING
GIBBOUS



LAST
QUARTER



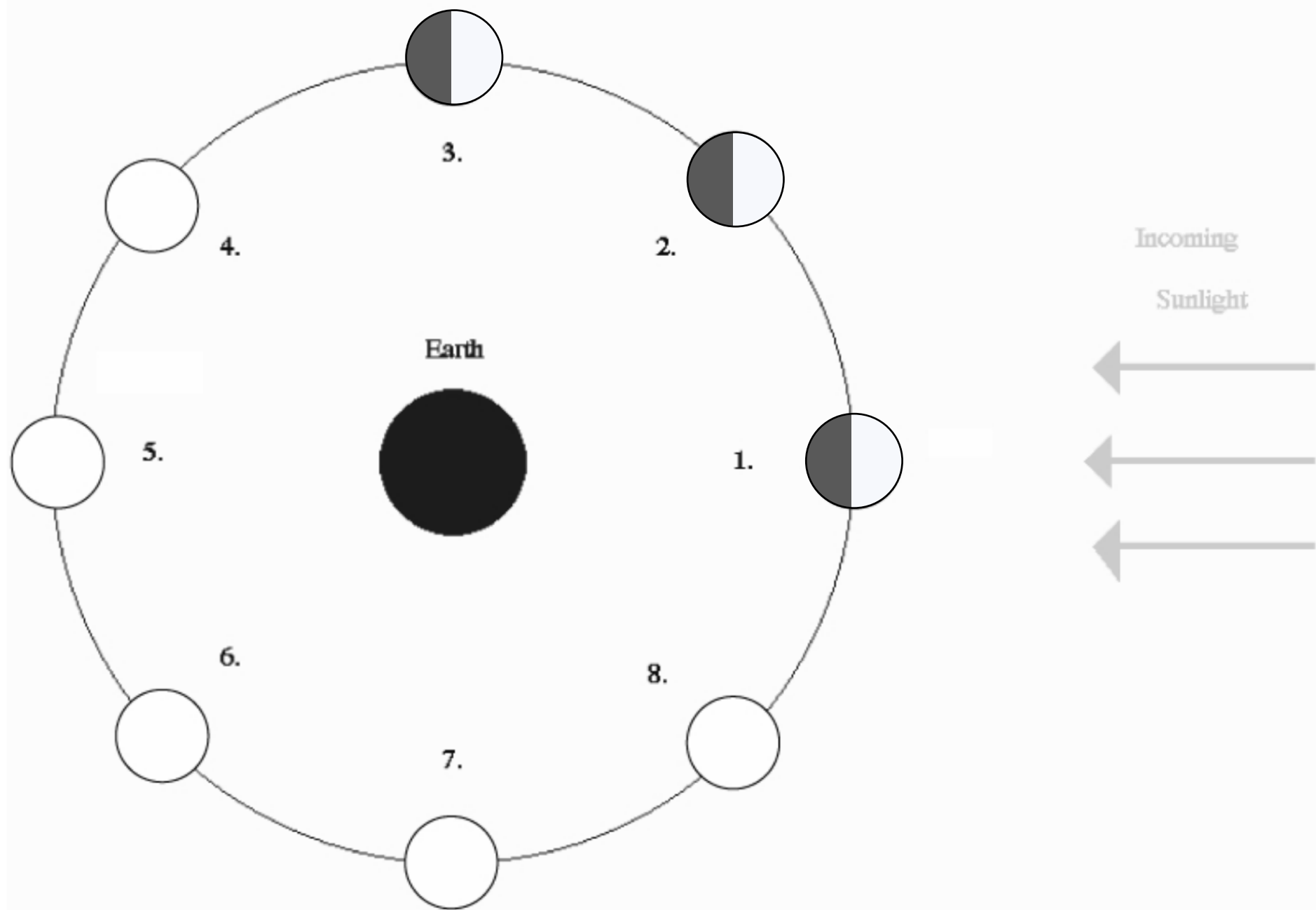
WANING
CRESCENT



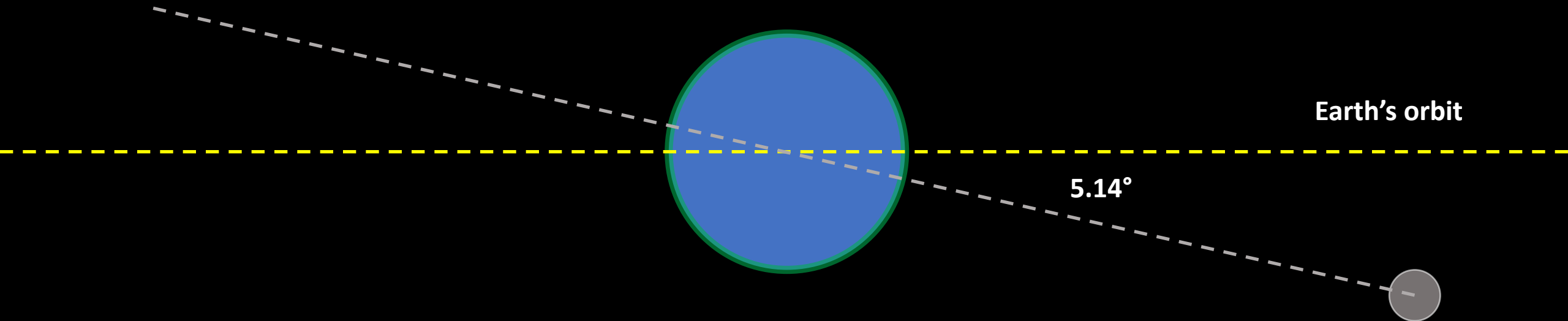
NEW

29.5 days

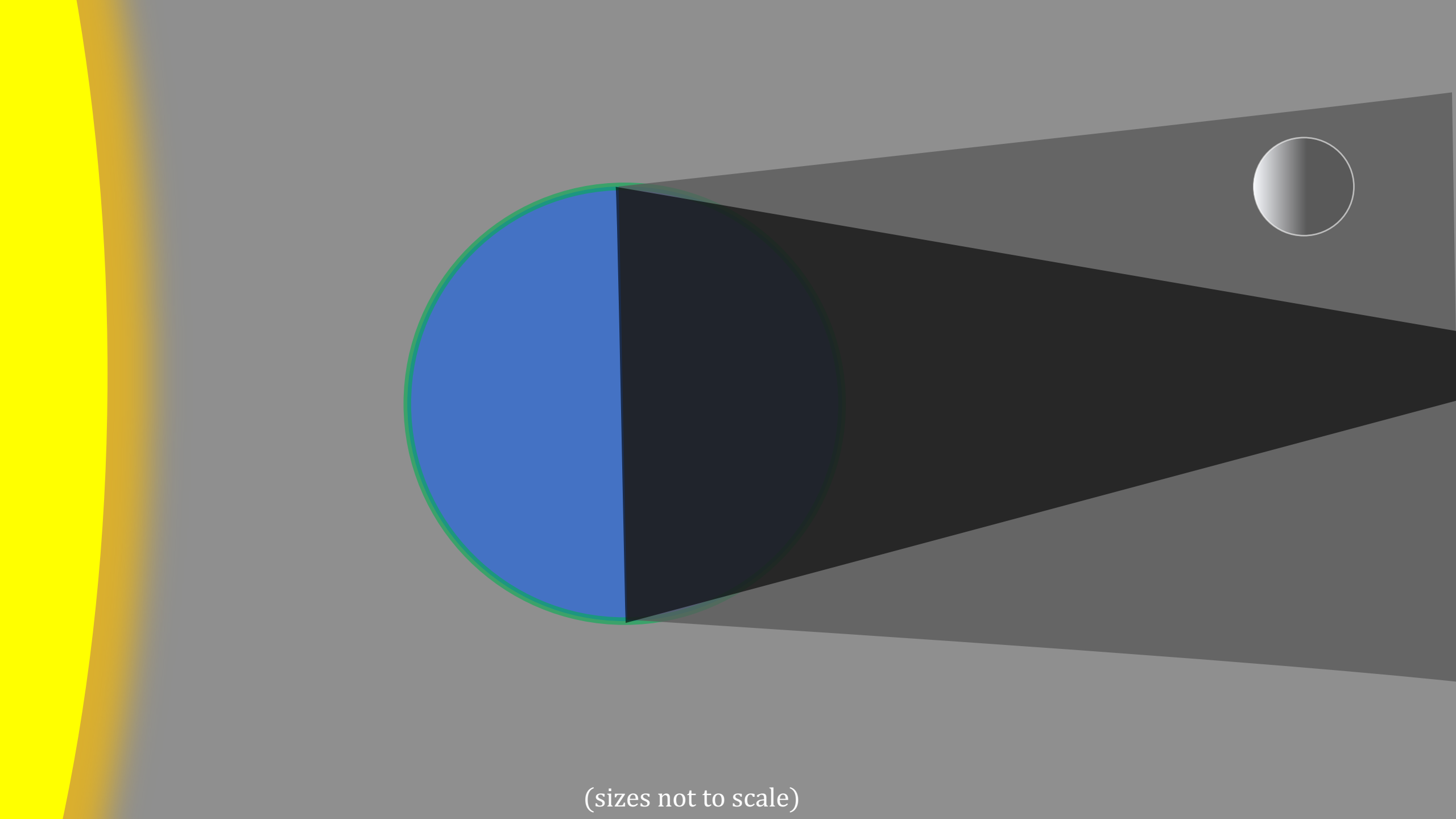




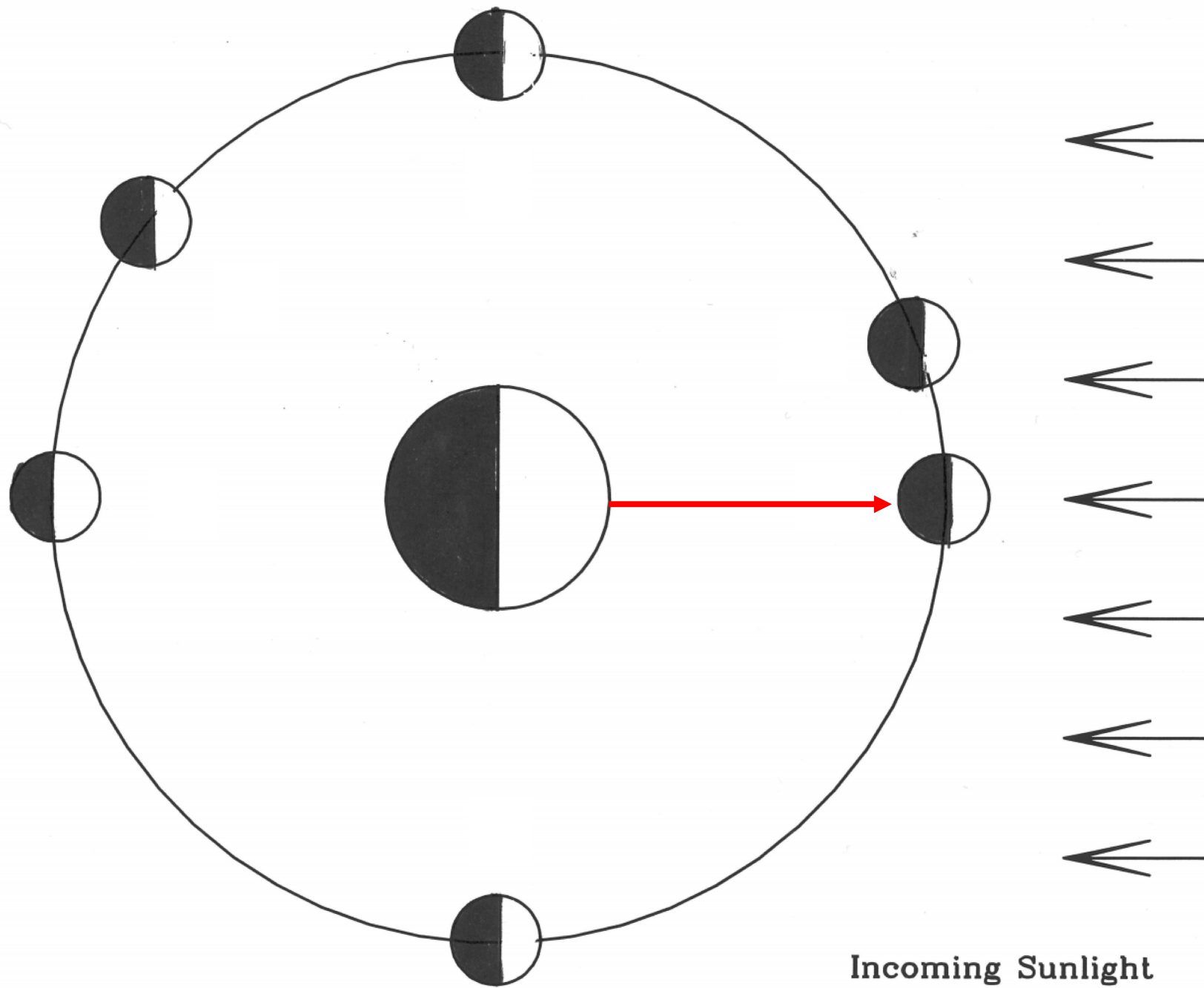
Wouldn't the Earth Block Moonlight?



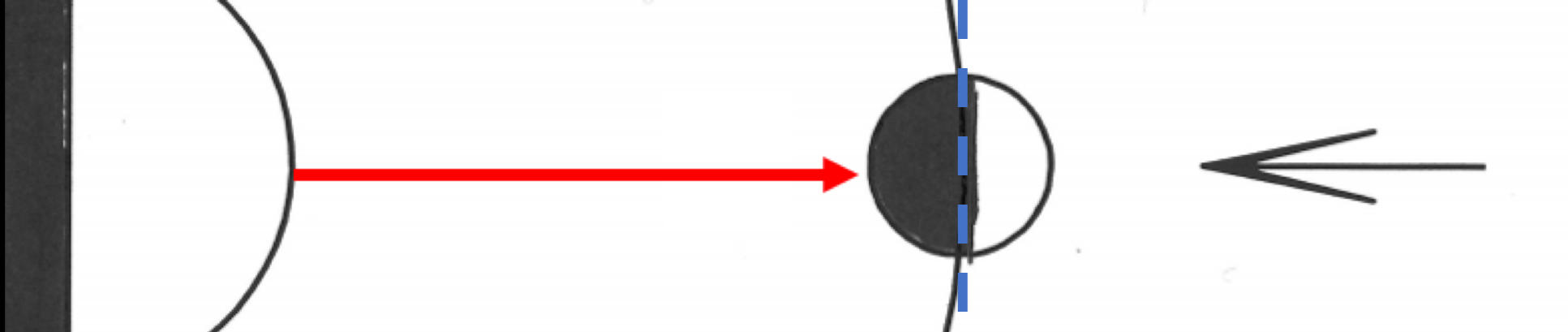
(sizes not to scale)



(sizes not to scale)

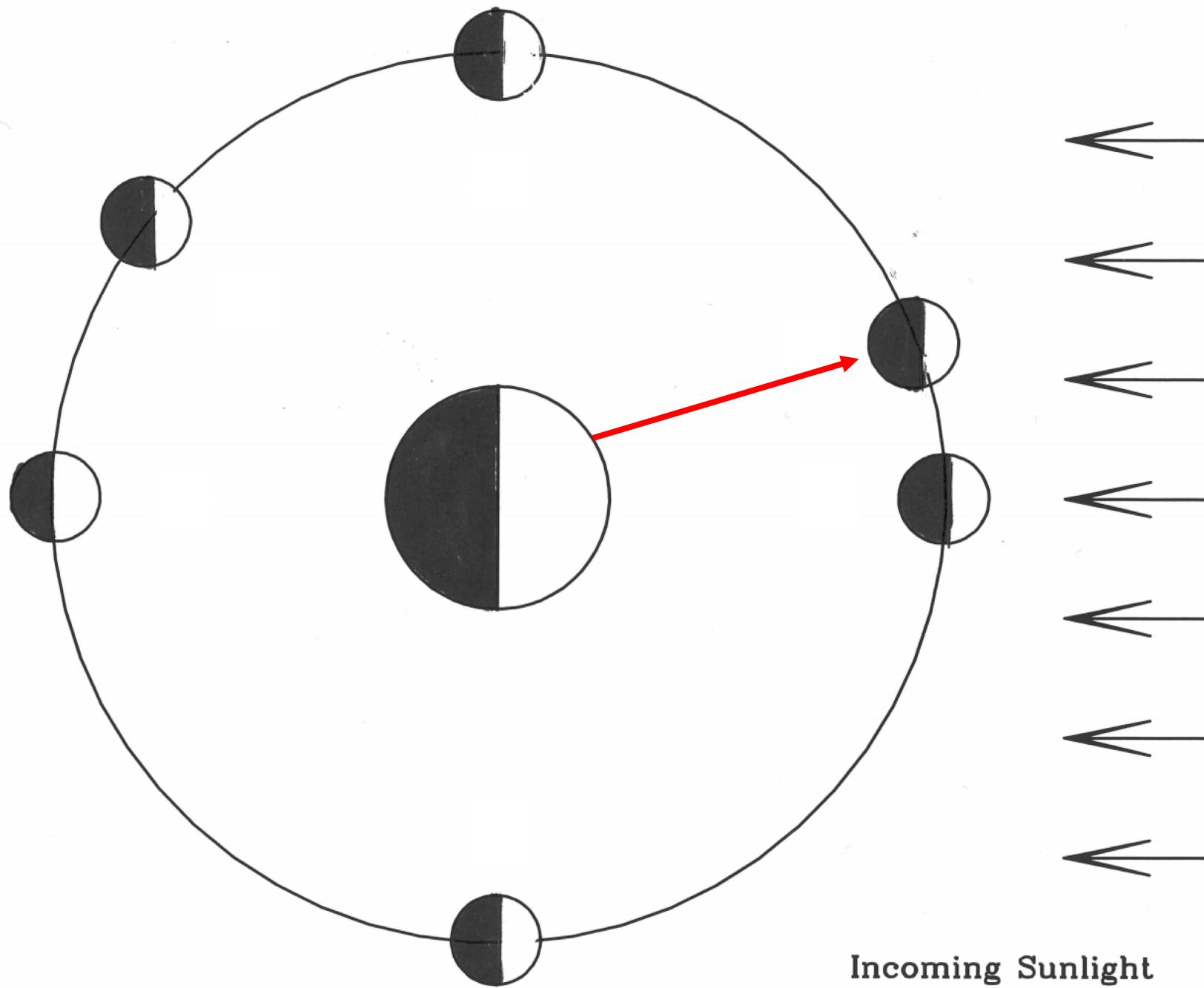


Incoming Sunlight

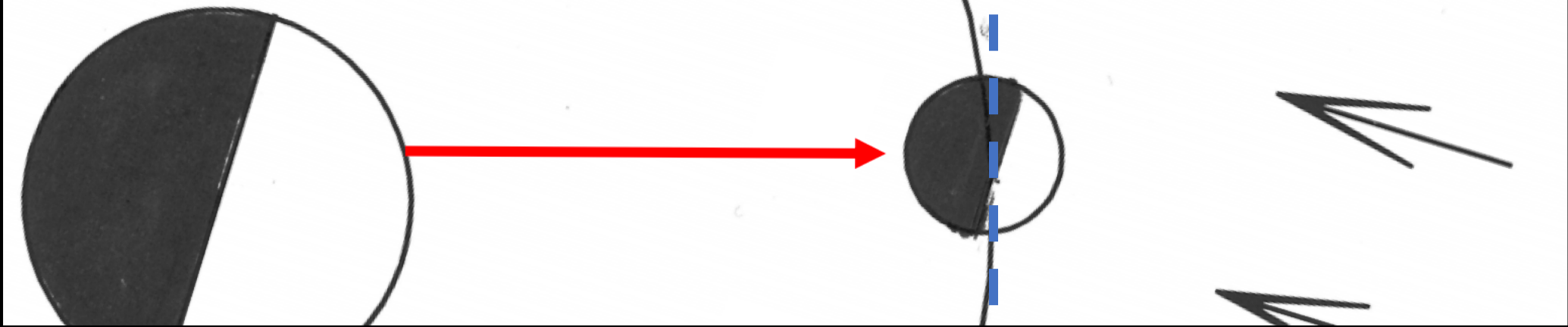


New Moon



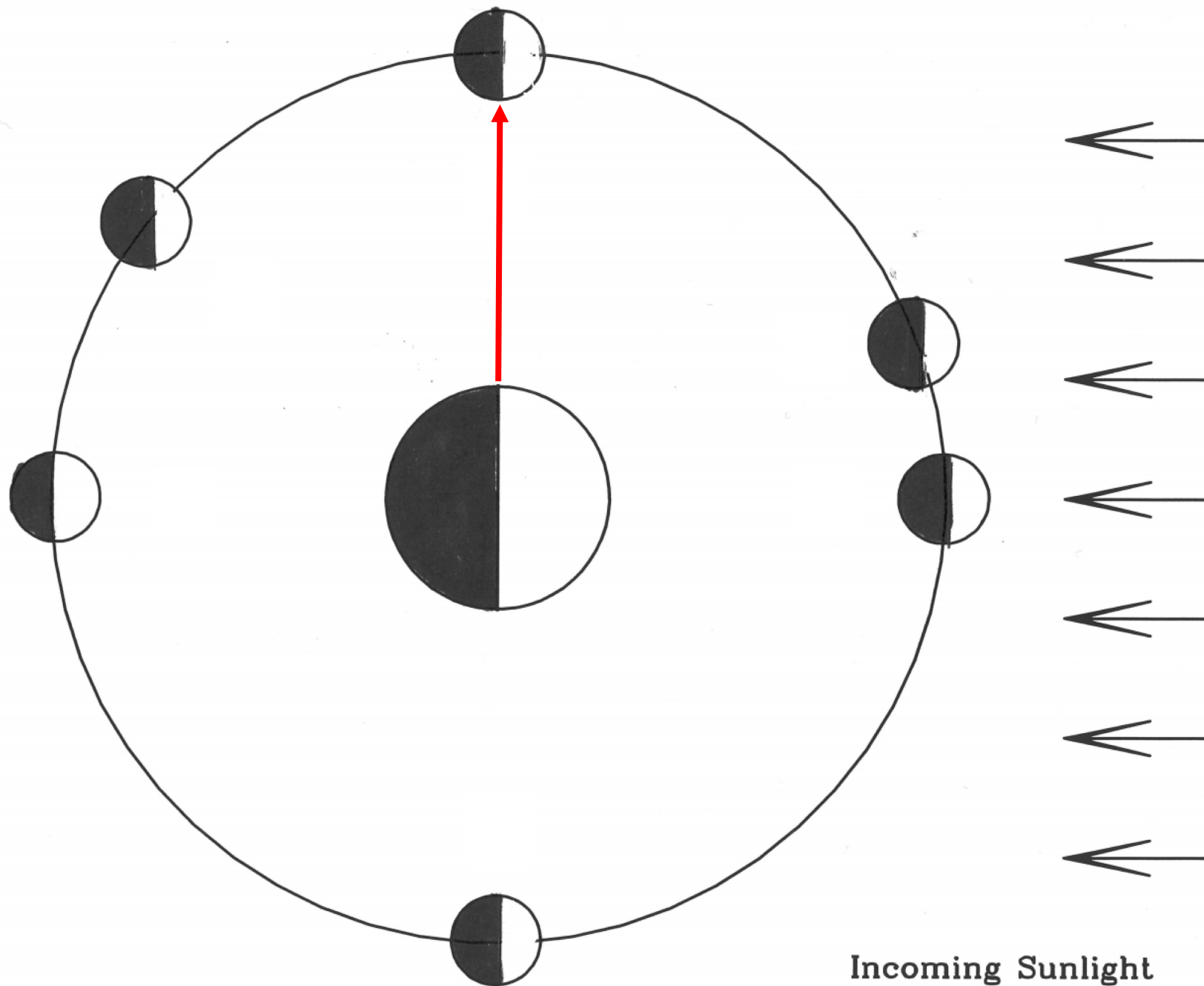


Incoming Sunlight

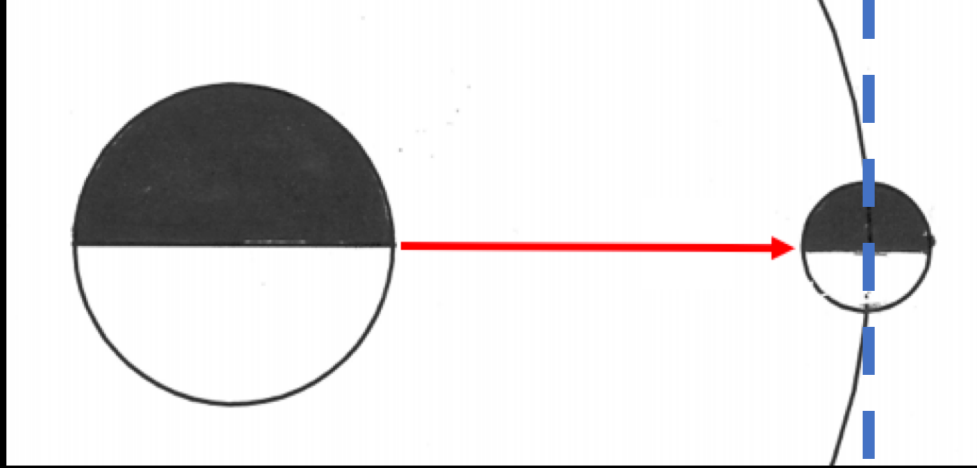


Waxing Crescent



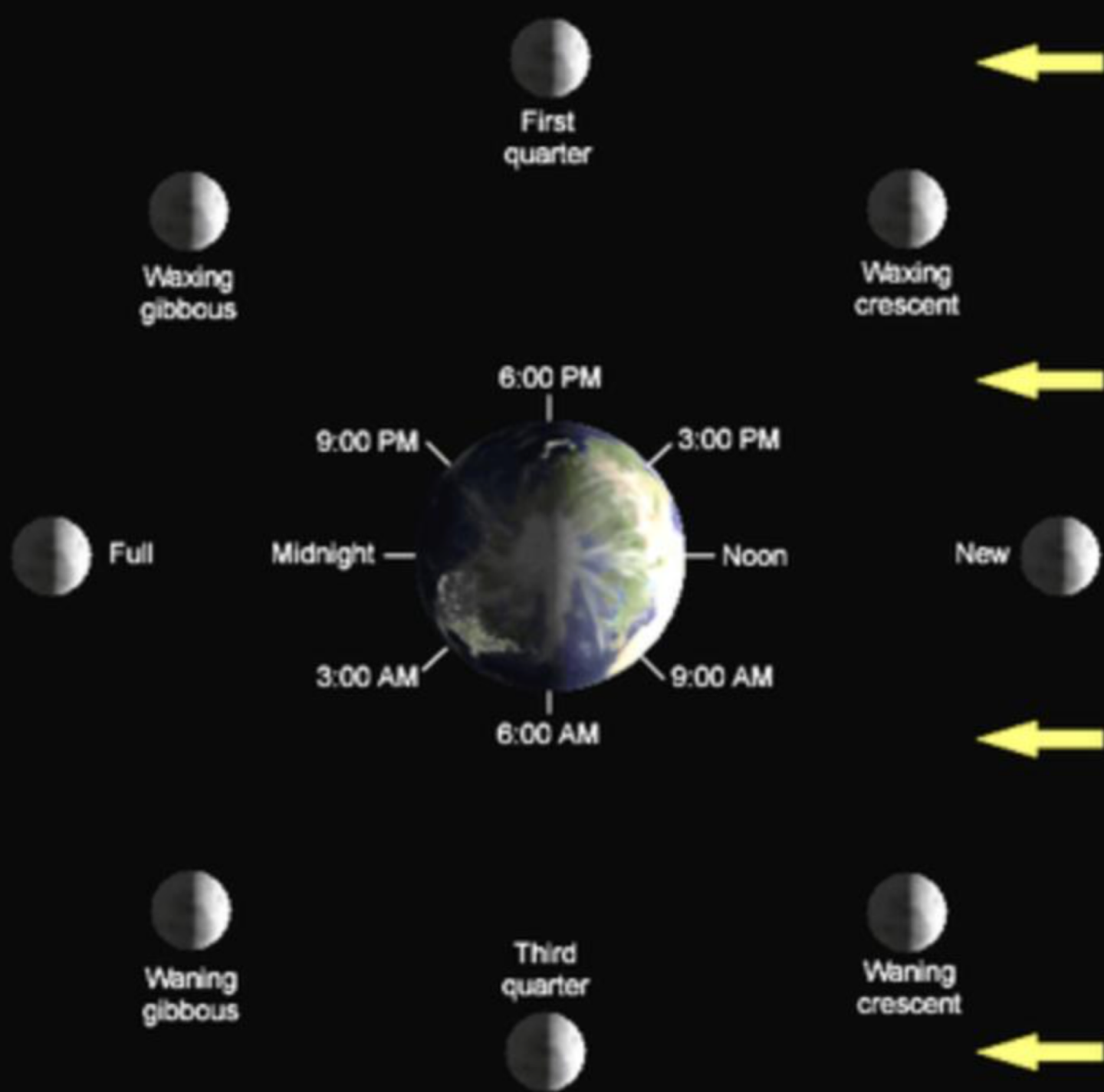


Incoming Sunlight



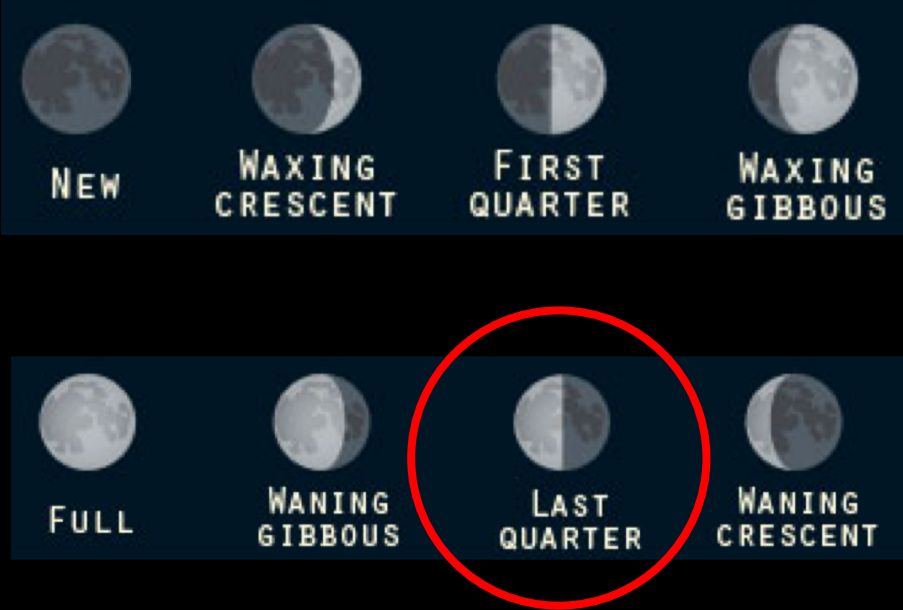
First Quarter





Finding the Time of Day: *Determine the Moon's Phase*

(example)



horizon



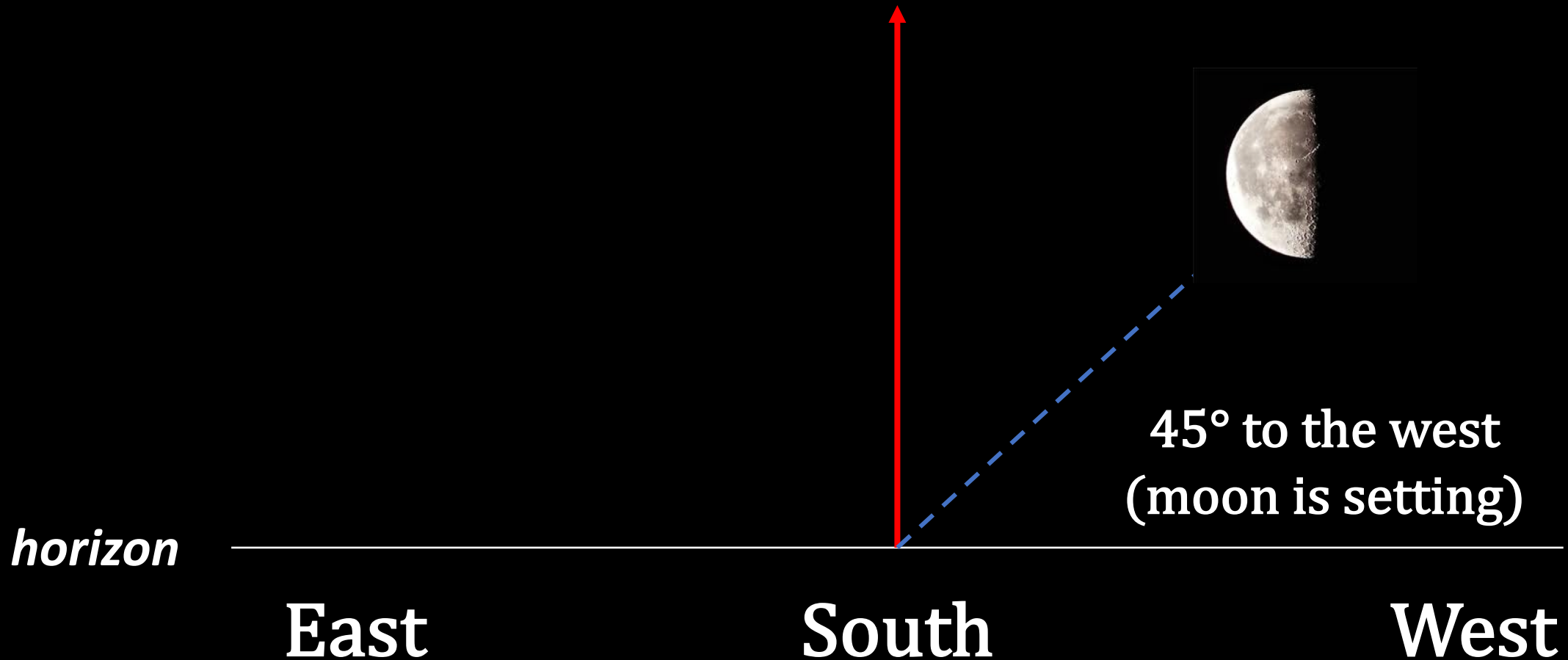
East

South

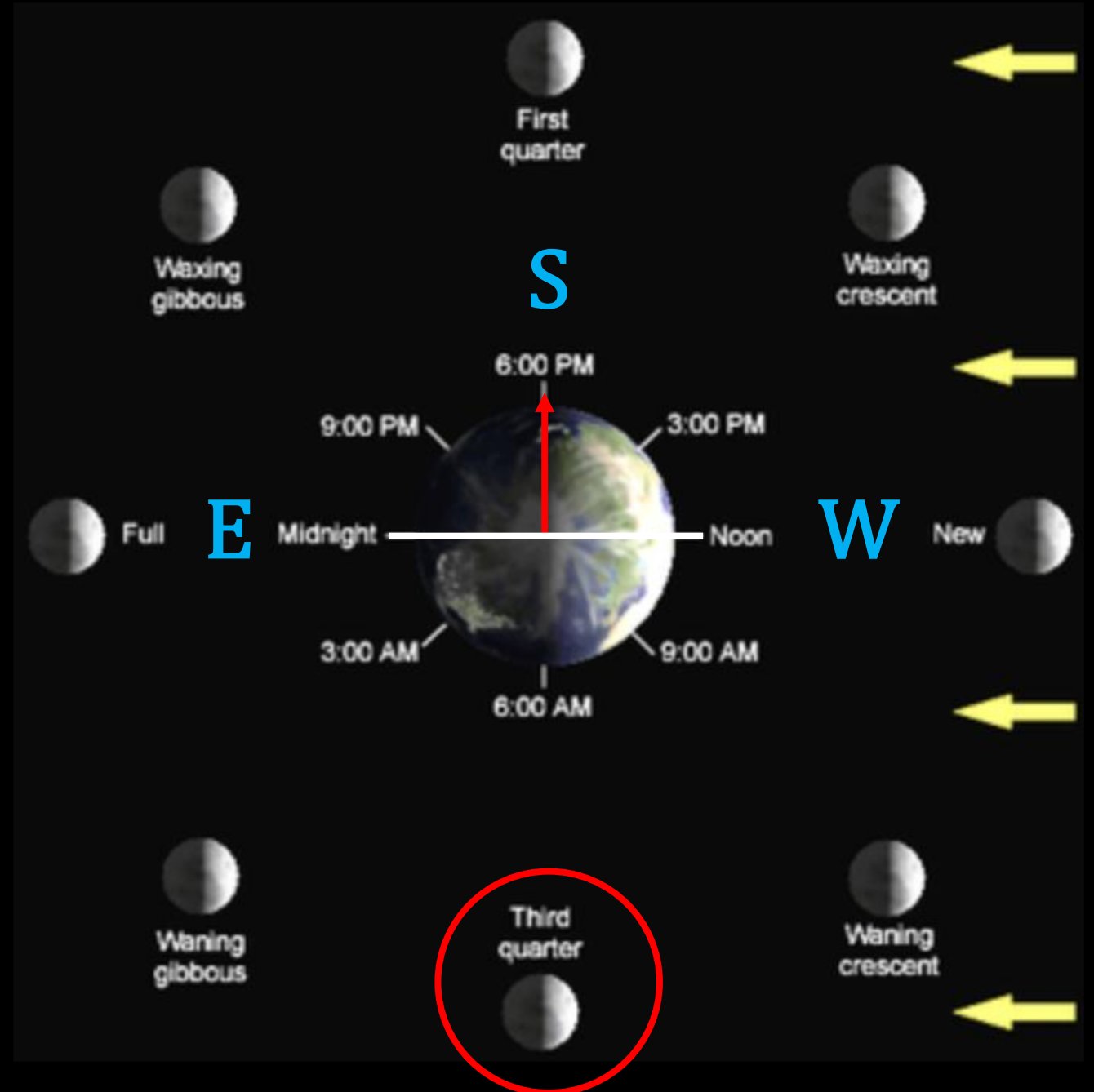
West

Finding the Time of *Day*: Determine the Moon's Position

(example)



What direction
would the arrow
need to be facing
(i.e., *what time*)
such that the last
quarter moon is 45°
from the western
horizon?



9:00 am!

