

Name \_\_\_\_\_

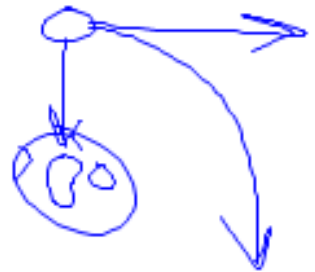
### Moon Phases and Seasons Study Guide

How is it the moon stays lit in the night sky?

It reflects the  
Sun's light

What two forces keep the moon in orbit around the Earth?

Forward momentum  
gravity



Why is it the moon seems to change shape during the moon cycle?

The moon's orbit  
Causes us to see different  
amounts of the lit half

How long does it take the moon to orbit the Earth? 27 days

How long does it take the moon to complete one rotation? 27 days

How long is one complete moon cycle? 29.5 days

How long does it take the Earth to make one complete rotation? 24 hrs

How long does it take the Earth to make one complete revolution? 365 days

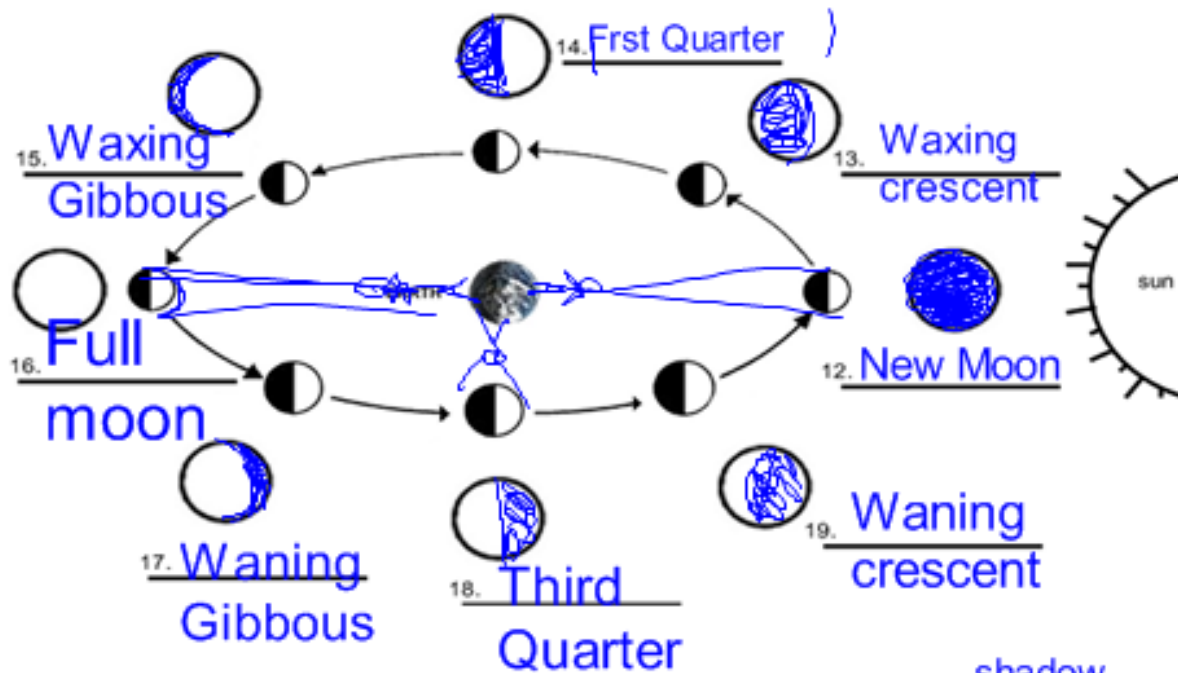
What causes day and night on Earth?

The rotation on our axis

Describe the movement of the Earth, Moon and Sun.

The moon travels around the Earth  
The earth travels around the sun  
The sun doesn't move.

Complete the diagram.



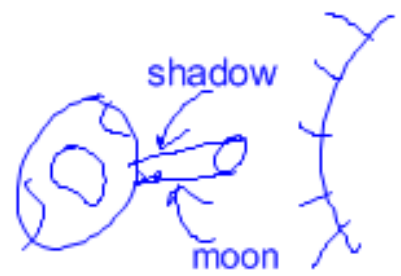
Describe a lunar eclipse.

When the moon travels into the earth's Shadow



Describe a solar eclipse.

When the moon casts its shadow on the Earth



What is it that causes the seasons?

# The tilt of the Earth

How much is the Earth tilted? 23.5 degrees



Why is it hotter during the summer?

The Earth is tilted toward the sun causing more direct sun light

Describe the Summer Solstice.

longest day / shortest night  
happens in June

Describe the Winter Solstice.

shortest day / longest night  
happens in December

Describe the Vernal and Autumnal Equinoxes.

Equal day & Night  
Autumnal-Sept. Vernal-March

Label the correct season for each position in the diagram for both hemispheres.

Northern Hemisphere Spring  
Southern Hemisphere Fall



Northern Hemisphere Summer  
Southern Hemisphere Winter



Northern Hemisphere Winter  
Southern Hemisphere Summer



Northern Hemisphere Fall/Autumn  
Southern Hemisphere Spring