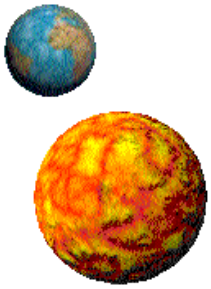
May 9, 2019

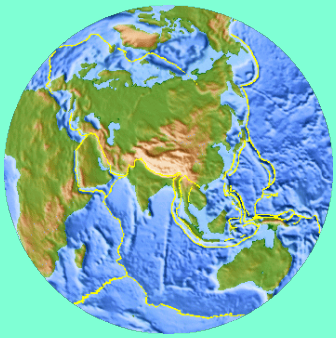


1) Earth Motion

Warm-up:

How fast does the Earth go around the Sun? In km/h.

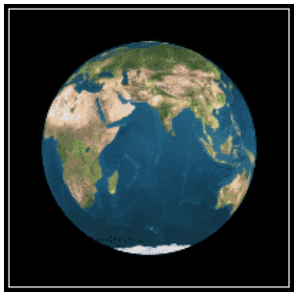
The Effects of Planetary Motion



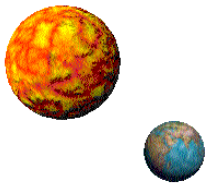
Section 13.3 Pages 404-405

Jan 13-11:27 AM

There are two ways the earth moves.



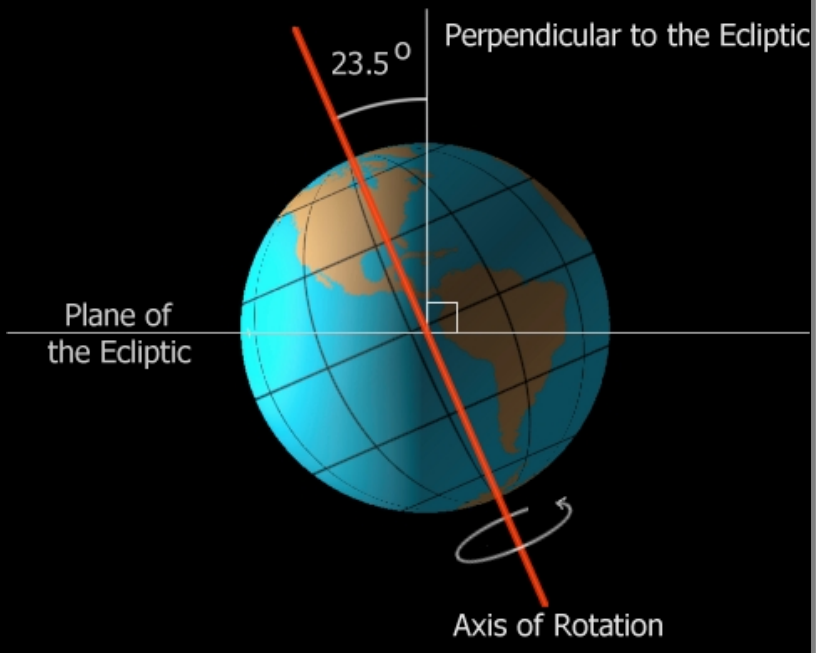
The Earth is spinning (rotation)



The Earth travels around the Sun (revolution)

Let's start with the Earth Spinning.

Rotation - The movement of an object around its **axis**.



Axis- An imaginary line from the north pole to the south pole.

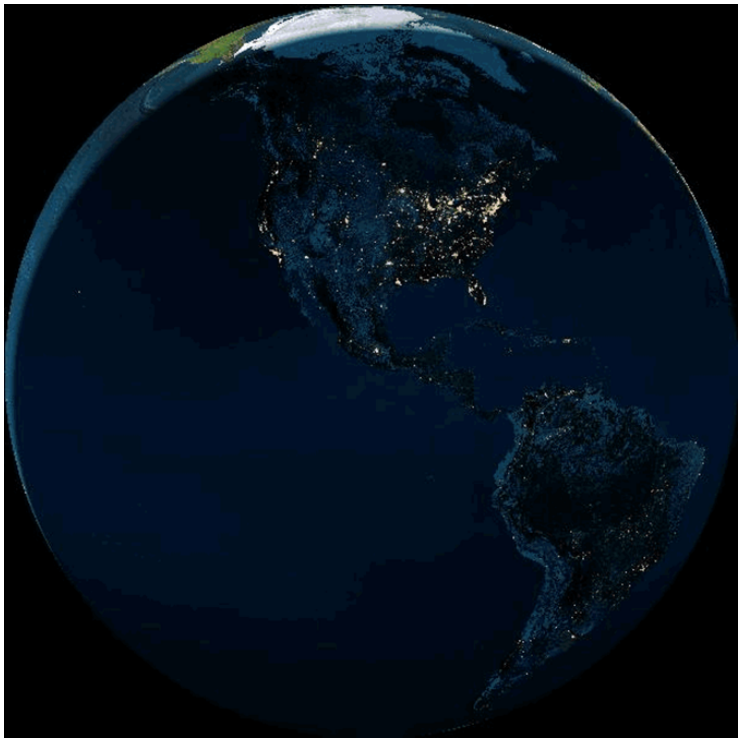
Thought to be 23.5° because asteroid or large object hit the earth and tilted it.

- One rotation of Earth takes 24 hours

Oct 27-7:24 PM

Effects of Earth's Rotation:

- Earth's rotation causes half the planet to face towards the sun (day) and the other half away (night) at all times



Nov 8-5:34 PM

Planet	Day Length
Mercury	1,408 hours
Venus	5,832 hours
Earth	24 hours
Mars	25 hours
Jupiter	10 hours
Saturn	11 hours
Uranus	17 hours
Neptune	16 hours

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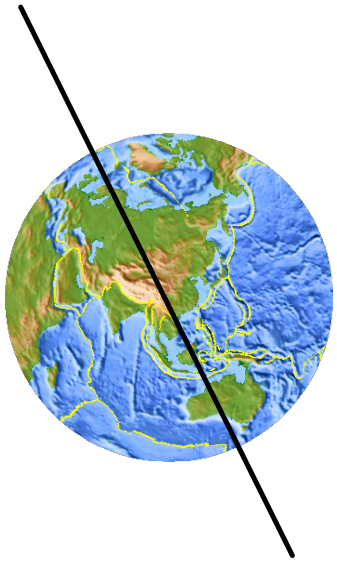
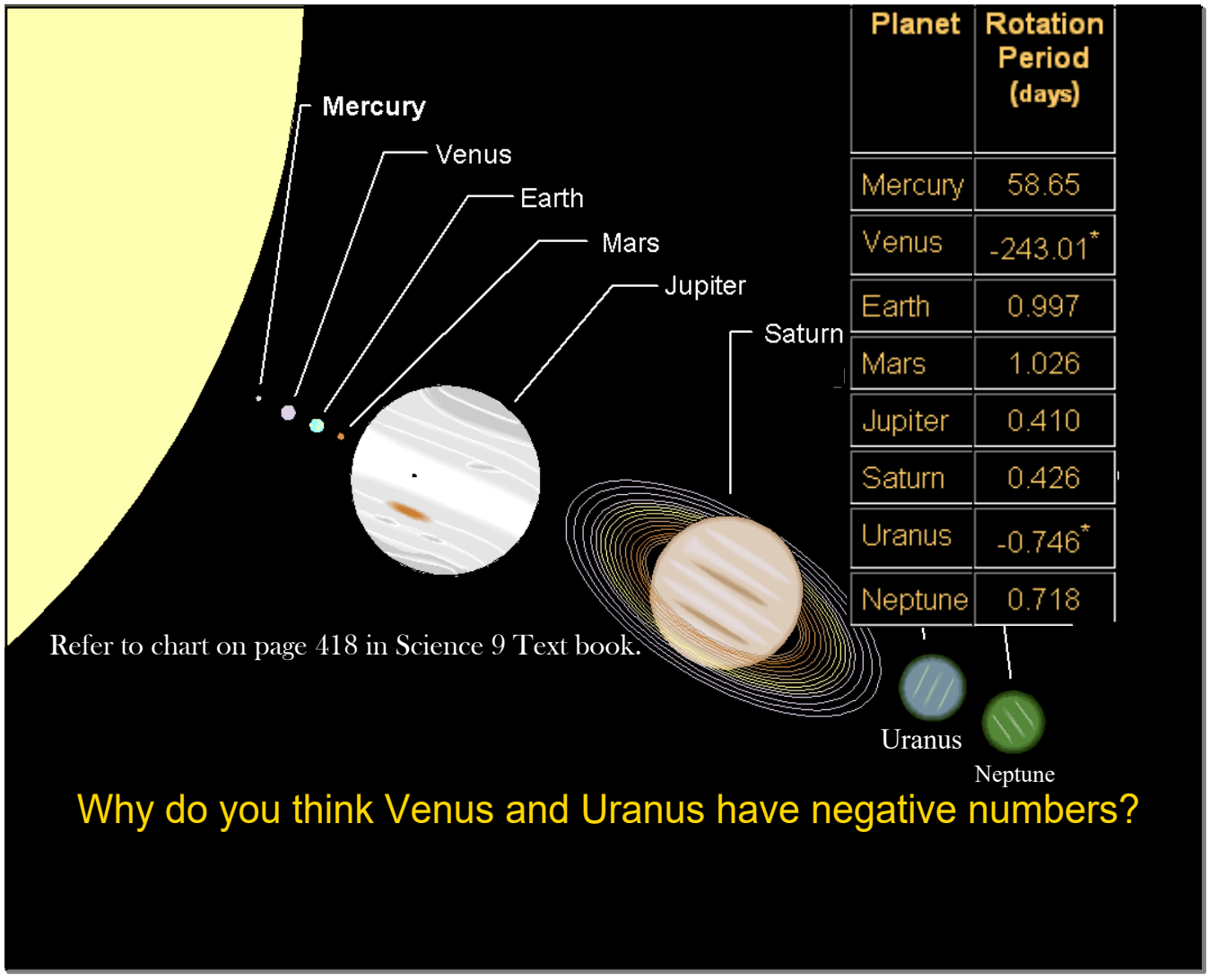
What about the other planets length of rotation?



Oct 27-7:22 PM

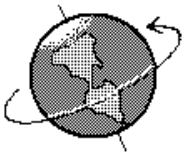


Planet	Rotation Period (days)
Mercury	58.65
Venus	-243.01*
Earth	0.997
Mars	1.026
Jupiter	0.410
Saturn	0.426
Uranus	-0.746*
Neptune	0.718

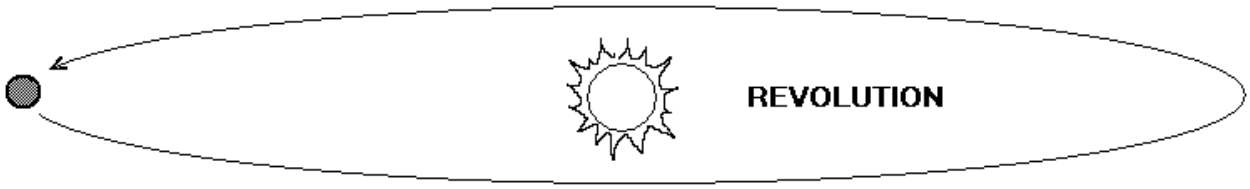
Planet sizes

revolution: the movement of one object travelling around another.

The Earth and the other planets in our solar system *revolve* around the Sun.



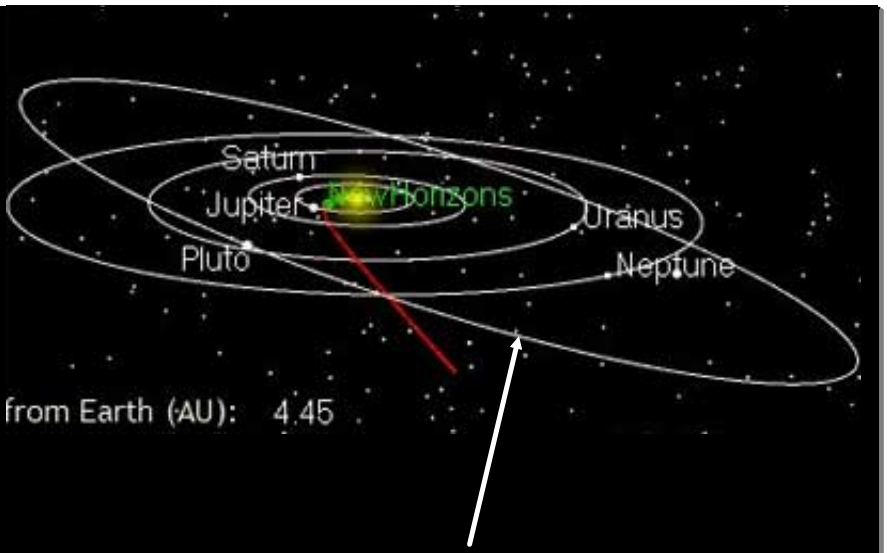
ROTATION



- Takes Earth one year to travel in a circle around the Sun
- **Allows us to see different constellations during different seasons**

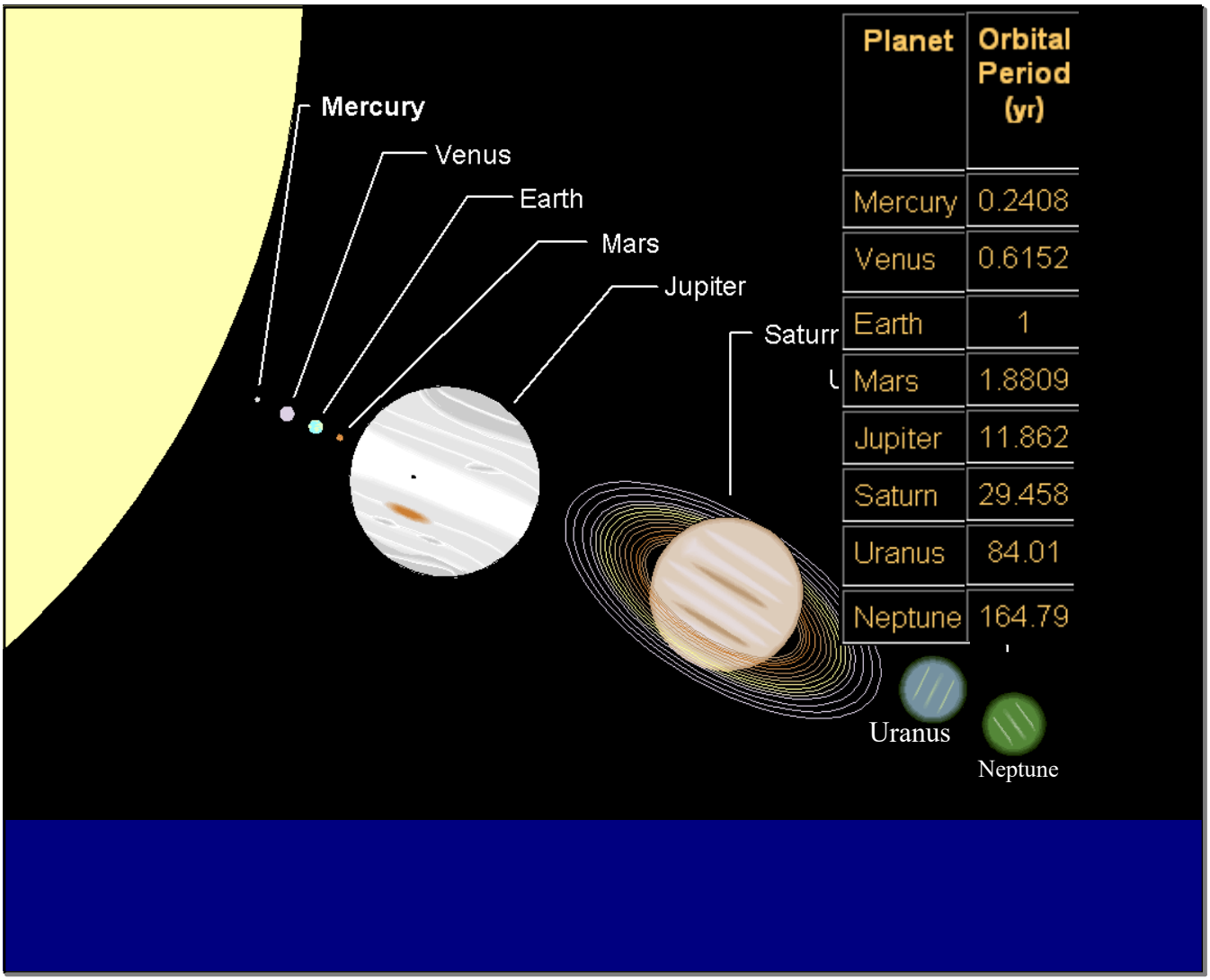
Nov 3-9:47 AM

The period of time for one revolution around the Sun is called an <u>orbital period.</u>



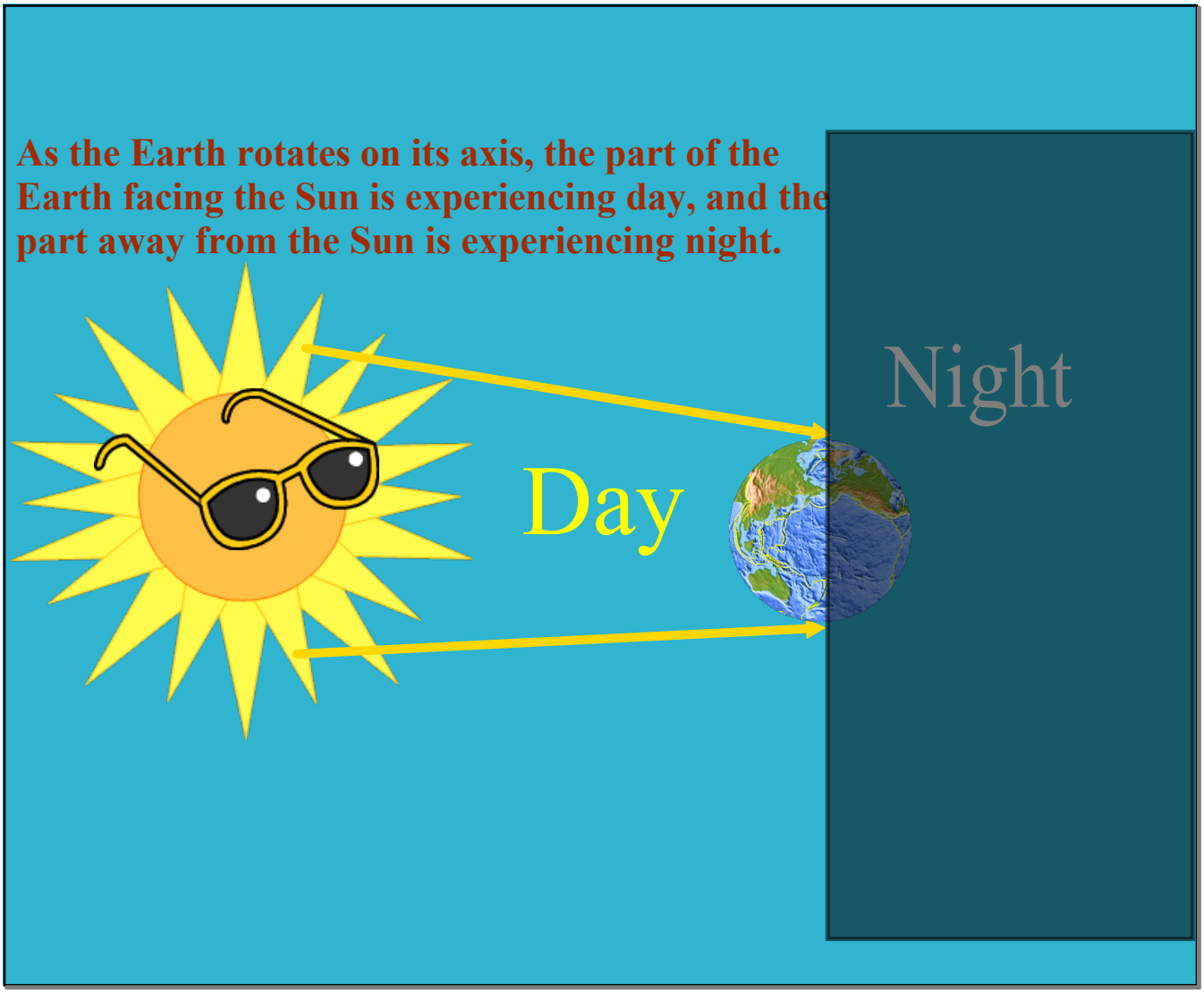
Orbit- The path planets take as they revolve around the Sun.

Dec 13-8:39 AM



Planet	Orbital Period (yr)
Mercury	0.2408
Venus	0.6152
Earth	1
Mars	1.8809
Jupiter	11.862
Saturn	29.458
Uranus	84.01
Neptune	164.79

Planet sizes

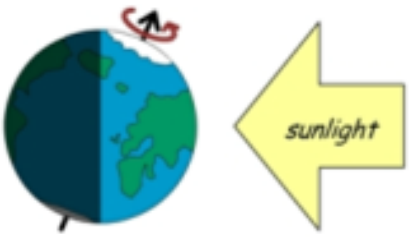

As the Earth rotates on its axis, the part of the Earth facing the Sun is experiencing day, and the part away from the Sun is experiencing night.
Night
Day

Dec 6-2:52 PM

Day & Night

The Earth **spins** on its axis once every **24 hours**.

Northern summer

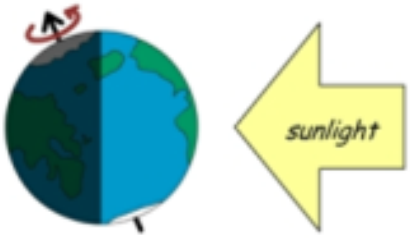


For the northern hemisphere…

longer days

shorter nights

Northern winter



For the northern hemisphere…

shorter days

longer nights

Nov 3-10:27 AM

Attachments

Uranus student response(4).avi

student response no tilt.avi