

# Bell Ringer: Page 31

Yes...you are skipping pages!!!!

**5 Minutes:**

Write about a geographic feature that interests you. Write down what you want to know about that feature and how you might answer your own questions.

**When done, read page 18 and 19 silently**

# Page Set-Up

1. Trim and tape in a new table of contents on top of the old one. **JUST TAPE THE TOP!**

# Page Set-Up

1. Turn to page 26.
2. Label this page as your new title page  
“Our Planet, Our Earth”

# Page Set-Up

Page 27: Label “Trigger Brainstorm” at top of page and in corner.

Add the timeline of lessons sheet you picked up today on the cart. Tape this timeline towards the bottom of the page.

# Page Set-Up

Page 28-29: Label this spread “Aha Connections” Additionally, you can add “Parts 2-9” if you wish.

Draw a diagram such as a light bulb on the center of this spread. Make sure you leave enough room to write down the essential questions for this unit.

# Page Set-Up

Essential Question: Page 28-29

How do human actions modify the physical environment? How do physical systems affect human activity and living conditions?



# Annual Motion

Core Concepts 2.1 -2.2



# Notes The Earth 2.1-2.2

Begin notes on page 31 and extend  
notes on to page 33

# Definitions

Revolve - circular motion around another object in the center.

Rotate- circular motion with the center of the circle inside the object.

Orbit - path one object makes as it revolves around another.

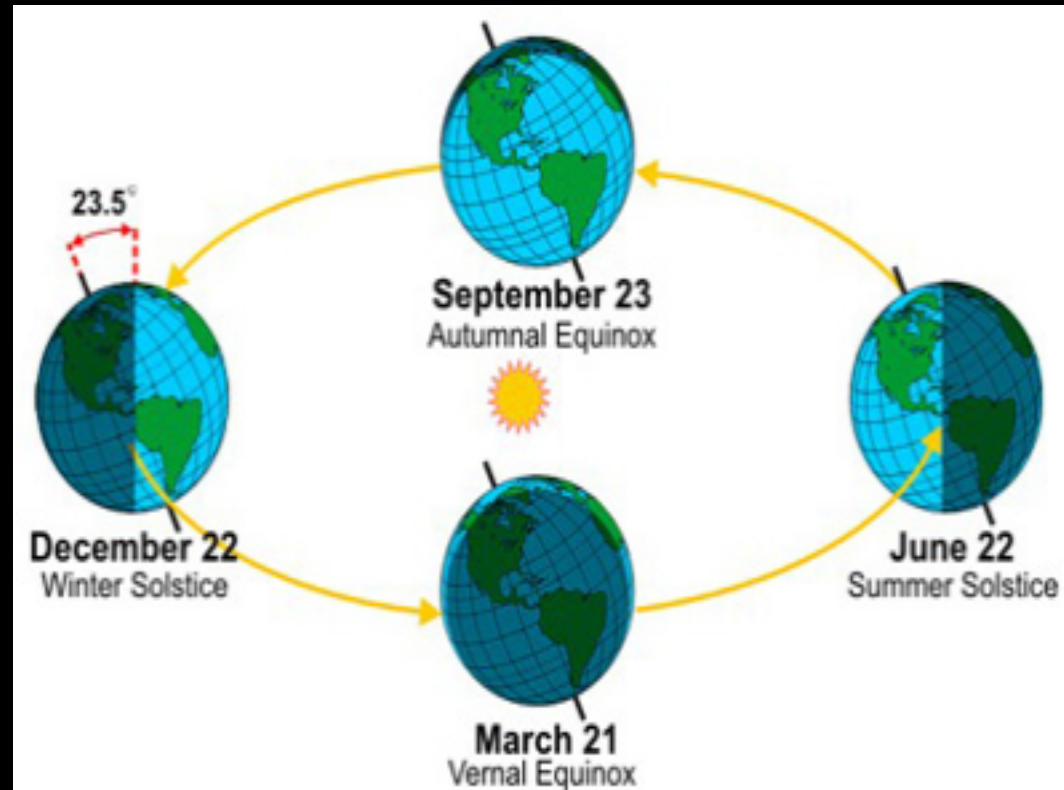
Axis - imaginary line between N and S Poles, tilted relative to its orbit.

# Earth's Orbit

- Earth **revolves** around the sun once every **365.26** days.
- Earth **orbits** the sun in an oval (elliptical) shape.
- Earth **rotates**, one complete spin, every 24 hours. Rotates towards the East.
- Earth's axis always points the **same direction** in space.

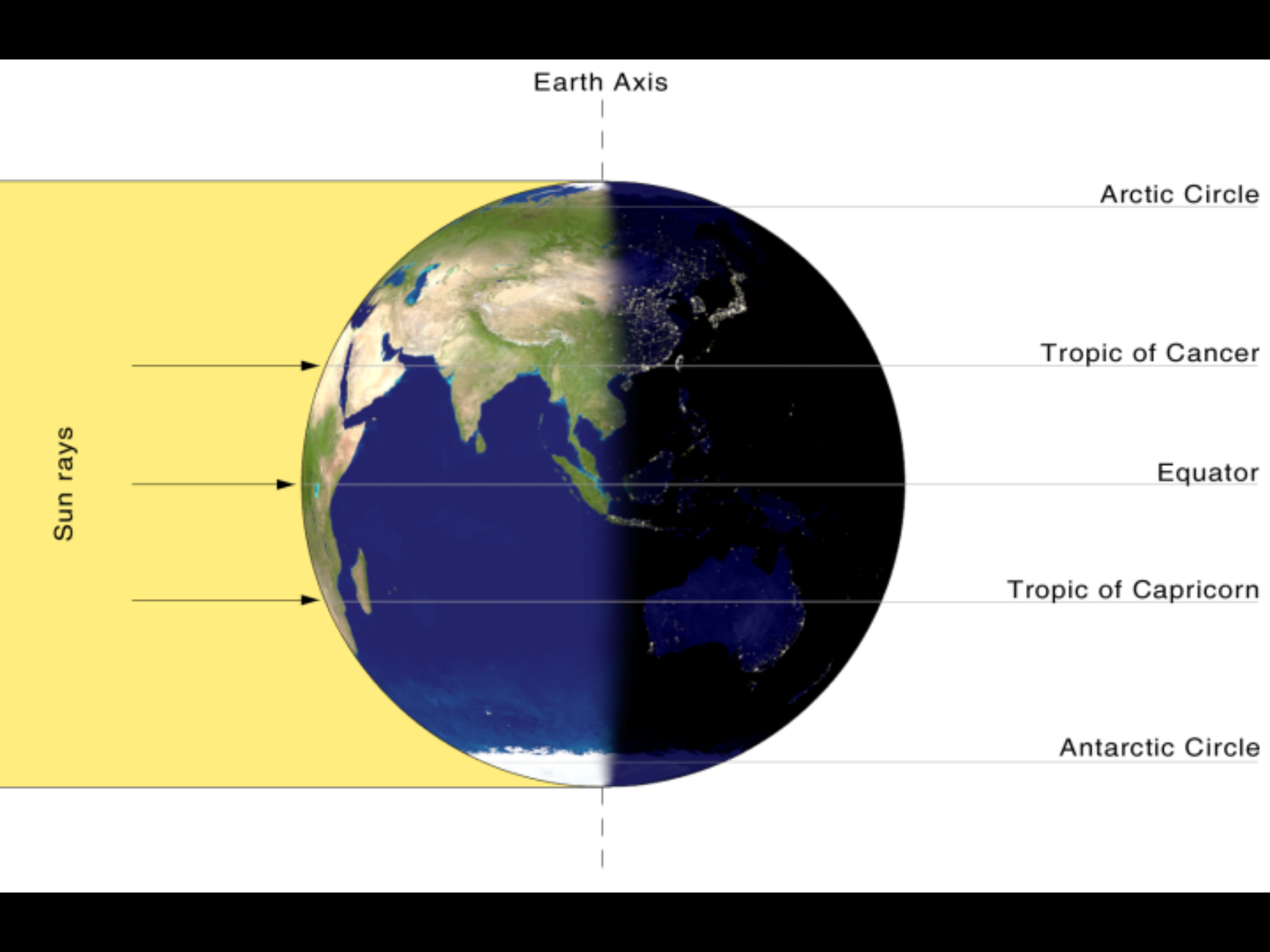
# Why do we have seasons?

Due to the tilt of the earth on its axis, the sun hits different parts of the earth and different intensities and at different times.



# Seasons

- Equinox—earth's axis tilts perpendicular to the sun
  1. the point where everywhere on Earth the day and night are equal in length.
  2. March and September Equinox



Earth Axis

Arctic Circle

Tropic of Cancer

Equator

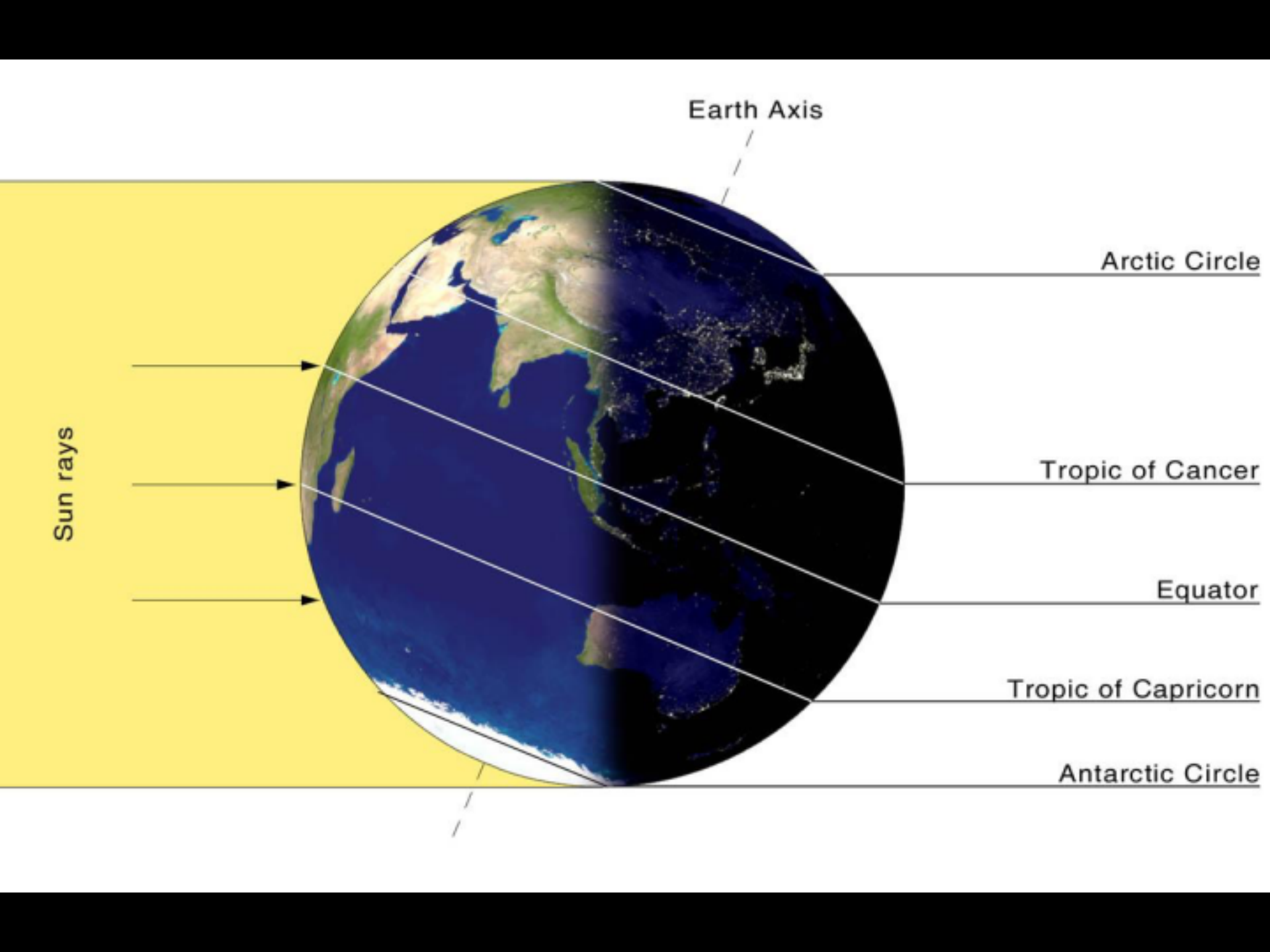
Tropic of Capricorn

Antarctic Circle

Sun rays

# Seasons

- Solstice—earth's axis tilts toward or away from the sun, extreme hours of day/night
  1. Days are **longest** in one hemisphere and **shortest** in another.
  2. Summer Solstice and Winter Solstice



Earth Axis

Arctic Circle

Sun rays

Tropic of Cancer

Equator

Tropic of Capricorn

Antarctic Circle



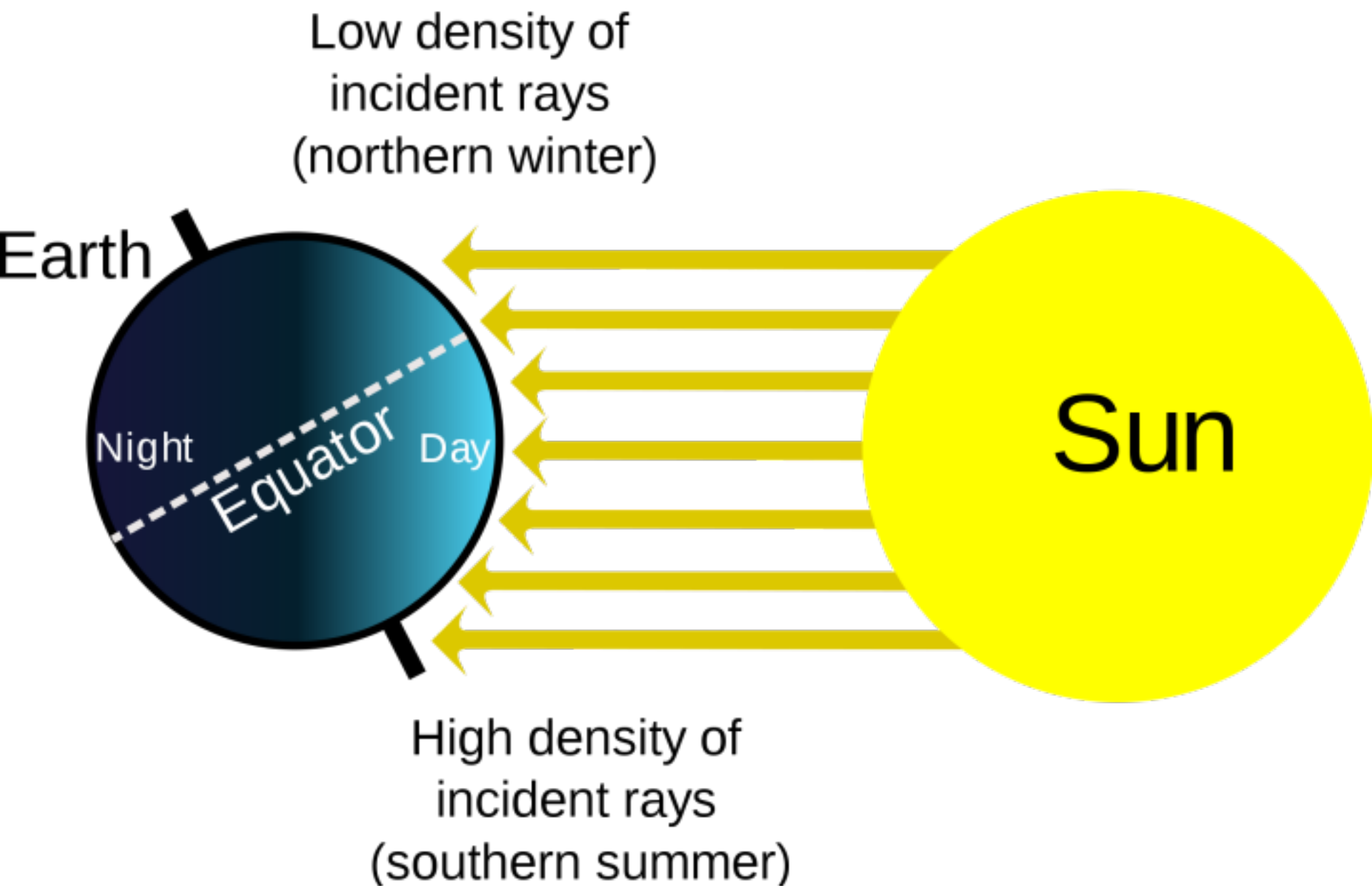
# Seasons (Northern Hemisphere)

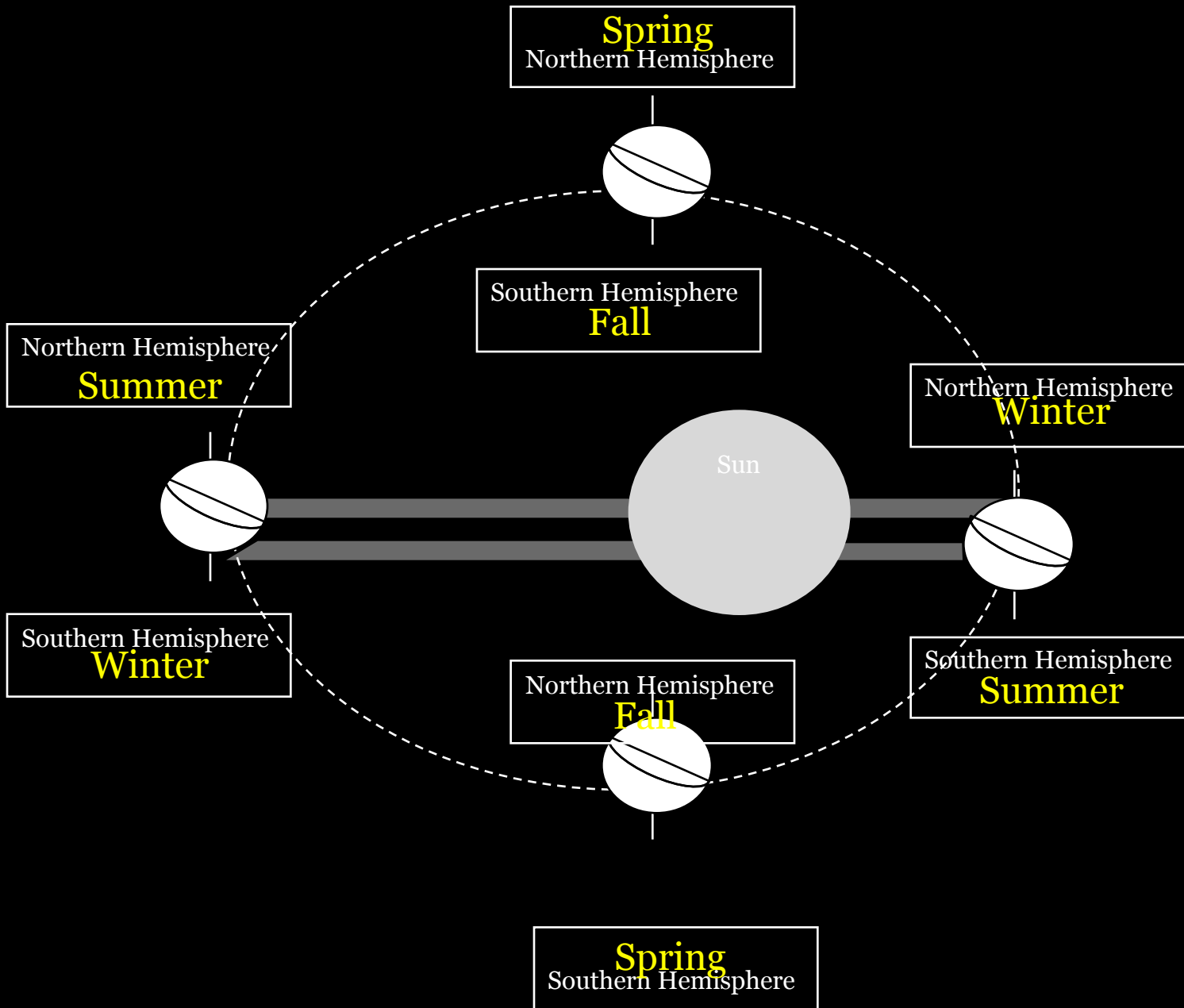
- Fall Equinox—**Sept 23**
- Winter Solstice—**December 21**
- Vernal Equinox—**March 21**
- Summer Solstice—**June 21**

# Summer vs Winter

- When the surface of the earth is **perpendicular** to the sun, it receives the most sunlight per area (hot).
- When the earth's surface is at an **angle** to the sun, the sunlight is **spread out** over a **larger area** (cool).

- The reason that we experience seasons is because the earth is **tilted** with respect to the sun.
- **Summer is NOT caused by the earth being **closer to** the sun!**
- The earth is actually **closer to** the sun during our winter than it is during our summer!





# Compare and Contrast Solstice and Equinox

**5 Min:** Page 30 - Use a graphic organizer of your choice and compare and contrast solstice and equinox.

i.e. Venn Diagram or Top Hat organizer

\*\*Use an elbow partner

# Assess Your Understanding

1. If it is summer in the N. Hemisphere, what season is it in the S. Hemisphere?
2. How can days be short and cold in one hemisphere when they are long and hot in another?

Read page 20 and 21



# Rotation in Earth

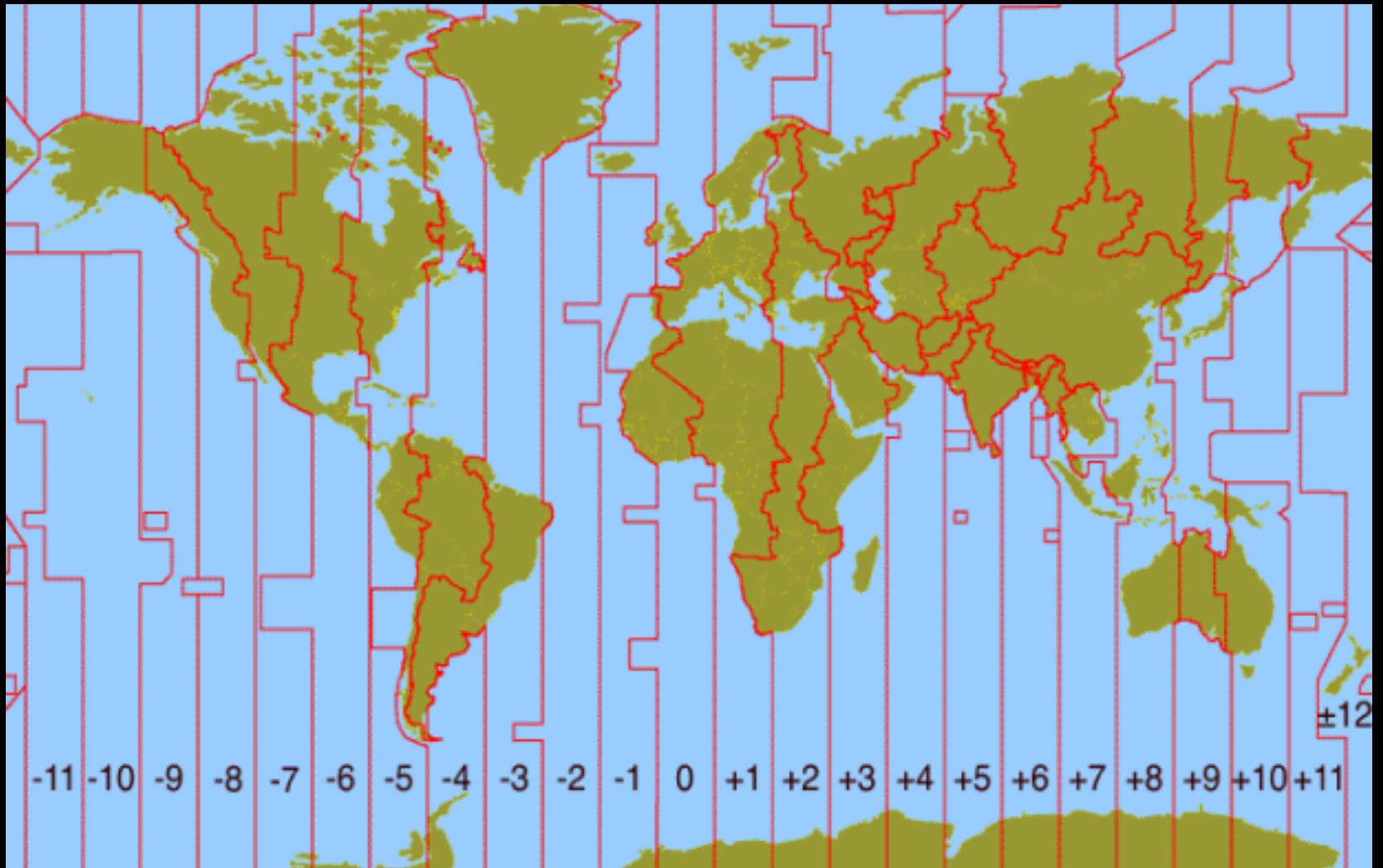
- Earth is spinning in space, or rotating on its axis.
- Each complete rotation takes about 24 hours.
- It is night on the side of Earth facing away from the sun.
- It is daytime on the side of Earth facing towards the sun.

# Time Zones

The governments around the world agreed to divide the world into standard **time zones**.

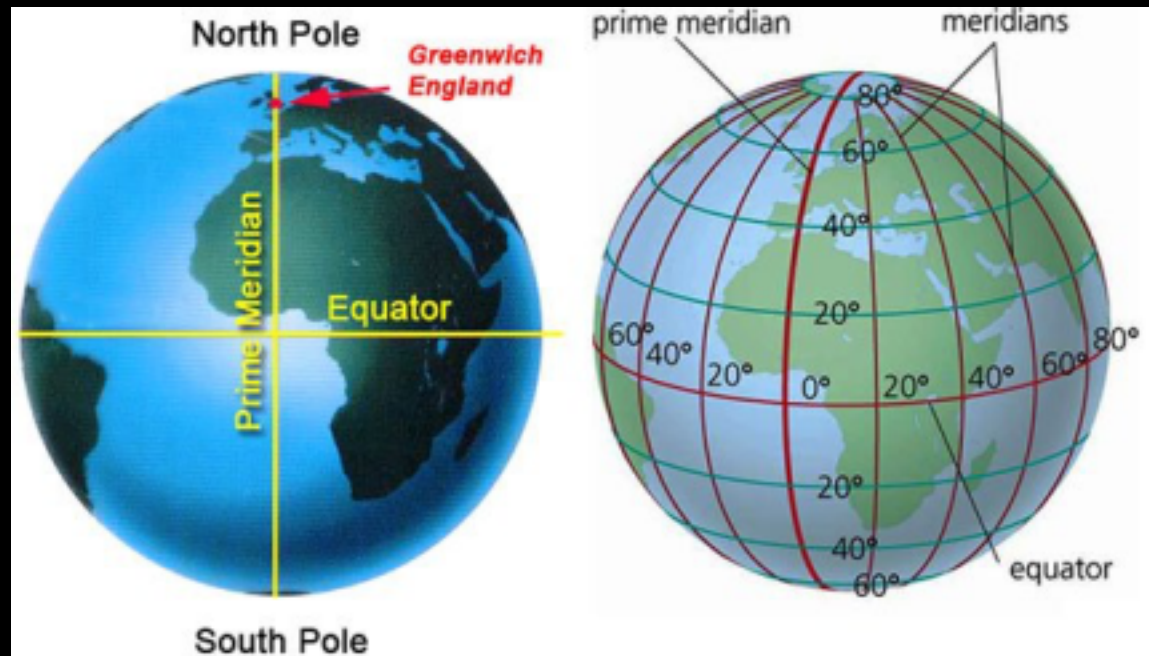
**Time Zone:** area sharing the same time.

- Neighboring time zones are one hour apart



# Prime Meridian

- located in Greenwich, England
- at the center of one time zone
- referred to as Greenwich Mean Time or Universal Time (UT).



# International Date Line

The time zone in which the day changes to the previous or next day.

See page 21 of your text for illustration.



# Page 32

Fill out the graphic organizer rotate vs. revolve and place on page 32 of ISN as a study guide.

# Assess Your Understanding

1. What is the rotation of Earth?
2. If it is 8pm in NY, what time is it in Los Angeles?