

BACK IN MY DAY



WE HAD **NINE** PLANETS.

Think about...

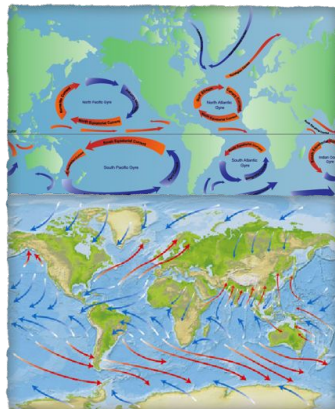
- What season are we in?
- How do you know?
- What is Earth's source of energy?



Solar Energy

- What are the effects of the sun's energy on earth?

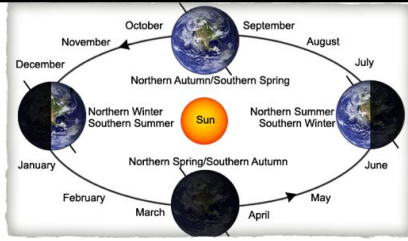
- The sun powers:
 - Ocean currents
 - Wind currents
 - Seasons??



Does the energy from the sun create the seasons?

- The sun plays a role, but does not cause the seasons.
- What causes the seasons?
 - The tilt of the earth: 23.5*
 - Revolution around the sun





- **Summer Solstice** - the northern hemisphere is tilted towards the sun = **more sunlight**
- **Winter Solstice** - the northern hemisphere is tilted away from the sun = **less sunlight**
- **Fall & Spring Equinox** - the northern & southern hemispheres have an equal amount of daylight.

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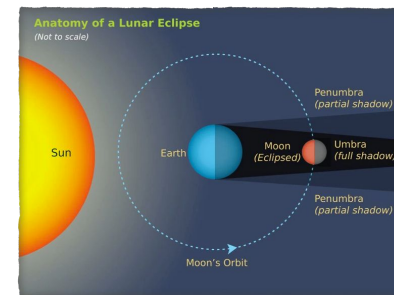
Phases of the Moon

- **What causes the phases of the moon?**
 - The moon's orbit is about 5° off from the Earth's orbit around the sun.
- **Does the moon emit light?**
 - The moon reflects the sun toward earth.



What is a lunar eclipse?

- When the earth is directly between the sun & moon.
- The earth casts a shadow on the moon.



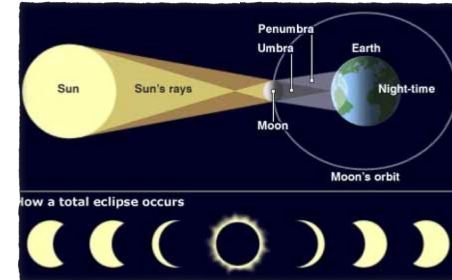
How often does a lunar eclipse occur?

- Usually about 6 months apart.
- Often partial
- Usually only visible from part of earth.



What is a solar eclipse?

- When the moon is directly between the sun & earth.
- The moon blocks the sun from a path on the earth.



How often does a solar eclipse occur?

- Usually about 18 months apart.
- Often partial
- Usually only visible from part of earth.
- Aug 21, 2017 - total solar eclipse.

