***Chapter 4 Lesson 1***

***The Sun and Earth***

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***Terms:***

***Apparent***- the type of motion of the sun as it rises in the **east** and sets in the **west**

***Axis***- an invisible line that runs through the middle of a sphere

***Hemisphere-***the northern or southern half of Earth

***Orbit***- the path Earth takes around the Sun, or the path the Moon takes around Earth

***Revolution-*** Earth’s complete travel around the Sun

***Rotate***- what Earth does every 24 hours on its axis

***Season***- what occurs because Earth orbits the Sun on a tilted axis

***Shadow***- what changes during the day but always points away from the Sun

***Notes:***

***What causes day and night?***

* Earth rotates on its axis every 24 hours.
* As it rotates, the sun rises in the east and sets in the west
* The stars, moon, and planets move across the sky because of **rotation.**
* Dawn and Dusk- shadows are long
* Noon/Midday- shadows are short

***What causes seasons?***

* Earth completes one revolution around the sun.
* In June- the North Pole is tilted **toward** the Sun. Sunlight hits at a steeper angle.
* Summer
	+ sun appears higher in the sky
	+ temperatures are warmer
* In December- North Pole is **tilted** away from the Sun. Sunlight hits at a flatter angle.
* When it is winter in the Northern Hemisphere, it is summer in the Southern Hemisphere.
* When it is summer in the Southern Hemisphere, it is winter in the Northern Hemisphere.

***How does the Sun’s apparent path change over the seasons?***

* Summer: the sun **rises earlier** and **sets later** in the **summer**
* The sun’s path is higher in the summer than in the winter.
* **Equator:** the sun’s path changes **very little** during the year.
* The sun’s path is the same every year. This makes it easy to **PREDICT** the **sunrise** and s**unset** each year.