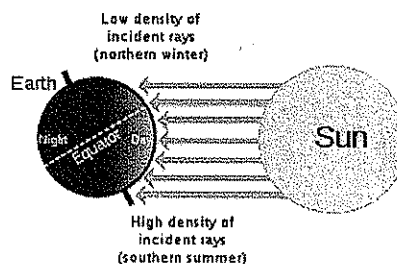


Name: _____ Date: _____

Physical Science Notes 15
Seasonal Changes

- Most everywhere on Earth has 4 seasons:
 - summer
 - winter
 - fall
 - spring
- The exception to the rule is the tropics, where it is like Summer all the time.
- Why do we have different seasons?
 - The reason that we have seasons is that the Earth revolves around the sun at a tilt that we call the axis. The angle of this axis is 23.5°.



- This causes the sun's light to hit the Earth more directly in some places than others.
 - Where the sunlight hits the Earth more directly, it will appear to be summer time.
 - Where the sunlight is not as direct, it will appear to be winter time.
 - Where the sunlight is between these two extremes, it will either be

Spring or fall

- If the Earth was not on a tilt, we would not have seasons. For us, it would appear to be Spring or fall all year round.

The Earth in June

- In June, the Northern end of the Earth's axis is tilted toward the sun.
 - This means it will be Summer in the Northern Hemisphere.
 - This means it will be winter in the Southern Hemisphere.
 - On June 21, when the sun is directly overhead of those in the Northern Hemisphere, it is called the Summer solstice and is the longest day of the year.
 - On the same day in the Southern Hemisphere, it is actually the shortest day of the year and called the winter solstice.

The Earth in December

- In December the Southern end of the Earth's axis is tilted toward the sun.
 - The seasons for both hemispheres will be Opposite of those above.
 - The solstices are also switched.

Earth in March and September

- There are two days a year when the Sun is directly over the the equator and it receives exactly half of the day lit by the sun's light and half of the day in darkness. These are called equinoxes.

vernal → ○ The spring equinox happens around March 21.

autumnal → ○ The fall equinox happens around September 21.