**The Reasons for Seasons Worksheet**

**As you read, highlight or underline important concepts ^\_\_^!**

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| http://www.athropolis.com/popup/seasons1.jpg**SOLSTICE** **SUMMER SOLSTICE:** The first day of the Season of Summer. On this day (JUNE 21 in the northern hemisphere**\***) the Sun is farthest north in the sky (the axis that is experiencing summer is facing toward it- and is the receiving the most amount of direct sunlight) and the length of time between Sunrise and Sunset is the longest of the year. |  |
| http://www.athropolis.com/popup/seasons3.jpg**WINTER SOLSTICE:** The first day of the Season of Winter. On this day (DECEMBER 22 in the northern hemisphere**\***) the Sun is farthest south in the sky and the length of time between Sunrise and Sunset is the shortest of the year.  **\*** *In the southern hemisphere, winter and summer solstices are exchanged. Summer: December 22. Winter: June 21.* |  |

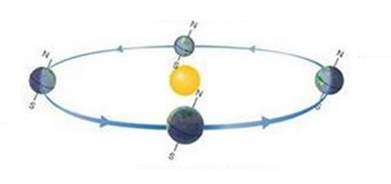
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| **EQUINOX** Two times of the year when night and day are about the same length. The Sun is crossing the Equator (an imaginary line around the middle of the Earth) and it is an equal distance from the North Pole and the South Pole.  **SPRING EQUINOX:** The first day of the Season of Spring - and the beginning of a long period of sunlight at the Pole. In the northern hemisphere: MARCH 20 (the Sun crosses the Equator moving northward). In the http://www.athropolis.com/popup/seasons2.jpgsouthern hemisphere: SEPTEMBER 22 (the Sun crosses the Equator moving southward).  **AUTUMN EQUINOX:** The first day of the Season of Autumn - and the beginning of a long period of darkness at the Pole. In the northern hemisphere: SEPTEMBER 22 (the Sun crosses the Equator moving southward). In the southern hemisphere: MARCH 20 (the Sun crosses the Equator moving northward). |

The **seasons** are caused as the Earth, tilted on its axis, travels in a loop around the Sun each year. The earth’s axis is tilted 23.5 degrees. Summer happens in the hemisphere tilted towards the Sun, and winter happens in the hemisphere tilted away from the Sun. When the earth is tilted toward the earth, it receives more direct sunlight. This is the reason for warm weathers in the summer.

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| **Name of equinox/solstice** | **Descriptions** |  | **Word bank** | |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  *June 21* |  |  | **Summer Solstice** | **Winter Solstice** |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  *December 22* |  |  | **Vernal Equinox** | **Autumnal Equinox** |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  *September 22* |  |  | **Equal days and night** | **Equal days and nights** |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  *March 20* |  |  | **Long days** | **Short days** |

**Part A: Use the word bank to the right to fill in the blank spaces below**

**Part B: Label the seasons for each hemisphere in each situation below (hint: if the axis is neither pointing toward or away from the sun, that means the north and the southern hemisphere is receiving about the same amount of direct sunlight = spring or fall)**



**Part C: Label each type of equinox/solstice for the diagram above with the month’s name (ex: March equinox, June solstice, etc).**

**Part D: Check your understanding:**

1. What is the reason for seasons?
2. What is an equinox? When do they occur?
3. What is a solstice? When do they occur?