

**Seasons**  
**Lesson Three**  
**Earth's Position of the Four Seasons**

- Standard II: Students will understand how Earth's Tilt on its axis changes the length of daylight and creates the seasons.
- Objective 1: Describe the relationship between the tilt of Earth's axis and its yearly orbit around the sun.
- Indicator a: Describe the yearly revolution (orbit) of Earth around the sun.
- Supplies: -Globe of the earth  
-Flashlight

Directions for the globe activity:

1. Have the students gather around the globe.
2. Tell them that today we are going to see what the different positions of the earth are with relationship to the sun for each season.
3. They all know that the earth revolves around the sun.  
They also know that the earth is tilted.  
They also know that the North Pole points toward the North Star.
4. Have them put the earth on a tilt.
5. Have them do the following.
6. Have them try to figure out what the position of the earth is around the sun during the summertime.
  - a. Ask them how they figured it out.
  - b. Ask them what the temperature might be and why.
  - c. They should see that the temperature is going to be hotter since the direct sunlight is pointed toward the northern hemisphere.
7. Have them try to figure out what the position of the earth is around the sun during the wintertime.
  - a. Ask them how they figured it out.
  - b. Ask them what the temperature might be and why.
  - c. They should see that the temperature is going to be colder since the direct sunlight is pointed toward the southern hemisphere.
8. Ask them why the positions of summer and winter are opposite each other.
  - a. They will see that the earth is tilted as such that as the earth goes around the sun the northern and southern hemispheres receive different amount of heat throughout the year.
9. By now they should be able to figure out where spring and summer is of the earth's orbit around the sun.
10. Ask them how the light shines on the earth differently during spring and fall compared to summer and winter.
  - a. They should see that the direct sunlight is now focused on the middle of the earth where the equator is, and the southern and northern hemispheres receive moderate temperatures since neither are receiving direct sunlight.

11. Tell them that in the next few lessons we are going to see how the direct sunlight causes more heat than indirect sunlight.