



## Causes of Seasons Activity for Kids

### Light Intensity Observer DIY

 Duration: **10 min**     Difficulty: **Easy**     Cost: **\$0 to \$10**

See the difference in light intensity at different angles!

### Material List

- 1** Flashlight or phone light
- 1** Toilet Paper Tube
- 1** Sheet of Graph Paper
- 1** Straw
- 2** Different Colored Markers
- 1** Roll of Tape

### Instructions

- 1** Tape the straw to the toilet paper tube.
- 2** Turn on the flashlight and shine it through the tube on to the graph paper
- 3** Trace the circle of light with the marker, making sure to keep it straight.
- 4** Repeat the process with the tube at a 45° angle.
- 5** Trace the new oval of light with a different colored marker.
- 6** Observe the difference!

### How It Works

When the light is shined at an angle, the same amount of light spreads out, which makes it less intense. The smaller the angle, the more it spreads out. Differences in light intensity, due to the Earth's tilt, are what cause seasons. The light intensity is highest in the summer and lowest in the winter.