

NORTHERN HEMISPHERE WINTER SOLSTICE

For the northern hemisphere, the winter solstice, the first day of winter, has the least amount of sunshine hours. The amount of sunshine depends on how far north a place is from the equator (latitude). See how much sunshine each location below receives on the winter solstice, compared to the summer solstice. Then calculate the percentage of summer solstice sunshine each location receives on the winter solstice. You will use this on the next page. Waldorf is calculated for you as an example.

WALDORF, MD

38.6°N Latitude

Winter Solstice Sunshine:
9.5 hours

Summer Solstice Sunshine:
14.9 hours

$$\begin{aligned} 9.5/14.9 &= 0.637 \\ 0.637 \times 100 &= 63.7\% \\ &\text{round up to } 64\% \end{aligned}$$

MIAMI, FL

24.8°N Latitude

Winter Solstice Sunshine:
10.5 hours

Summer Solstice Sunshine:
13.8 hours

FAIRBANKS, AK

64.8°N Latitude

Winter Solstice Sunshine:
3.7 hours

Summer Solstice Sunshine:
21.8 hours

QAANAAQ, GREENLAND

77.5°N Latitude

Winter Solstice Sunshine:
0 hours

*Last up on October 28 for
about 1 hour. Won't rise again
until February 13.*

Summer Solstice Sunshine:
24 hours

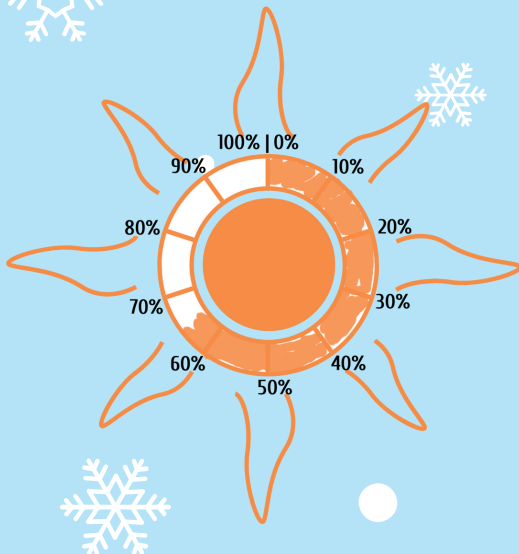


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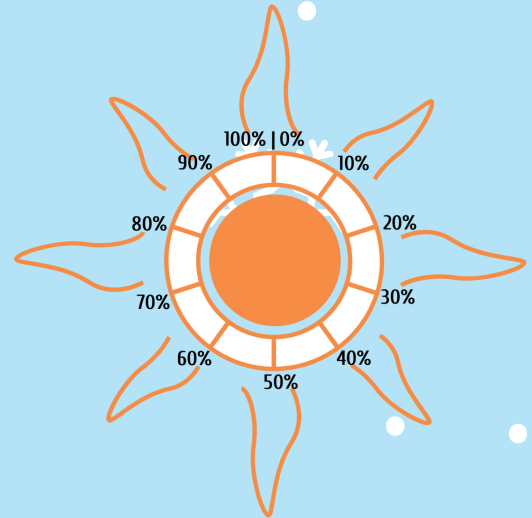
Now color in the sun to show how the winter solstice sunshine compares to the summer solstice sunshine for each location.

For example, in Waldorf, on the winter solstice, there is only 64% of the amount of sunshine compared to the summer solstice sunshine. So you would color in 64% of the ring inside the drawing of the sun.

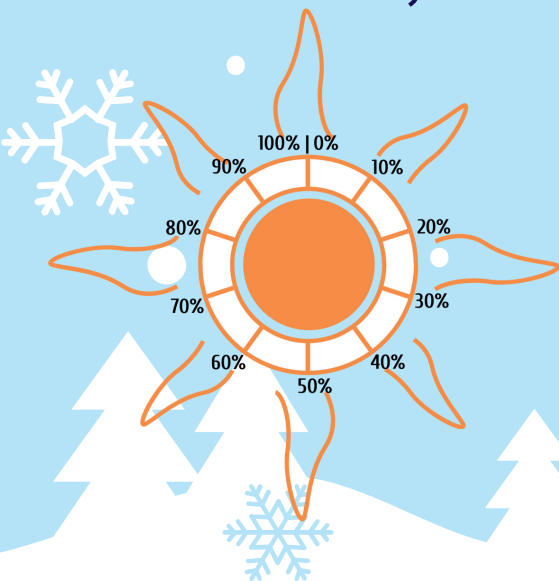
WALDORF, MD



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