



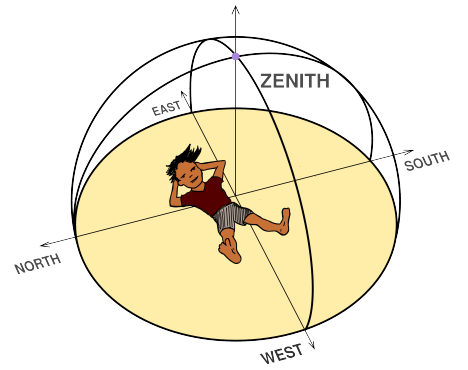
Zero Shadow Day !



For additional resources in many languages

Lie down on the ground and imagine the sky is a giant dome. The highest point of this sky dome is called the Zenith.

When the sun reaches the zenith, your shadow will be exactly under you! This happens only for places in the tropics, only twice a year, on zero shadow days .



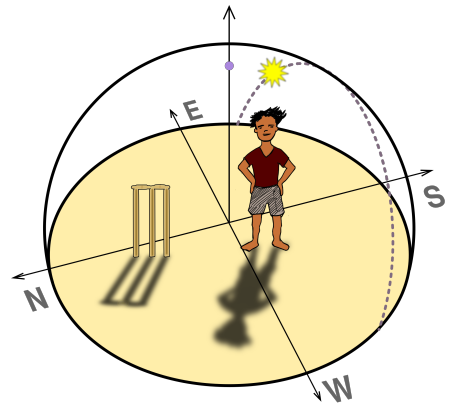
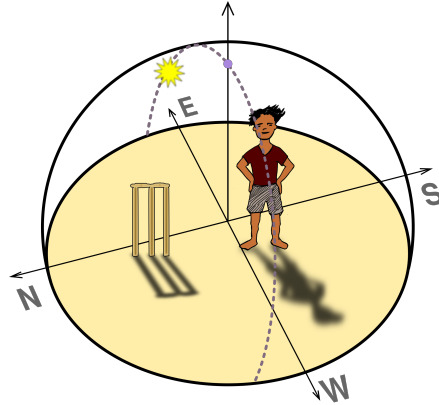
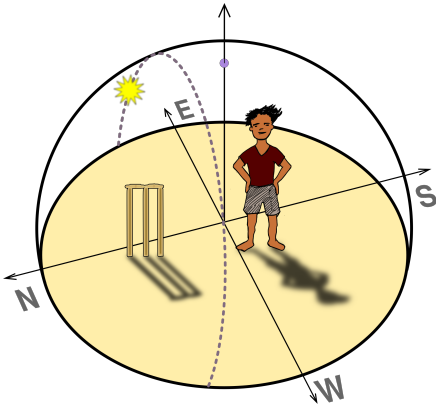
The arc the sun makes in the sky changes over a year :

Summer

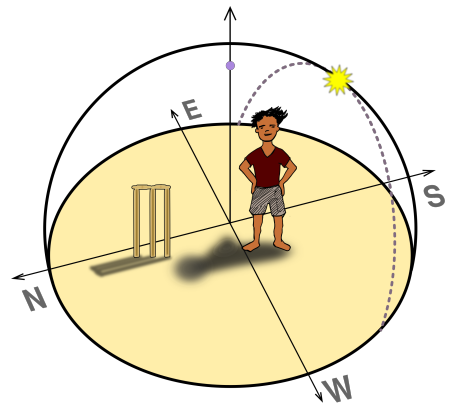
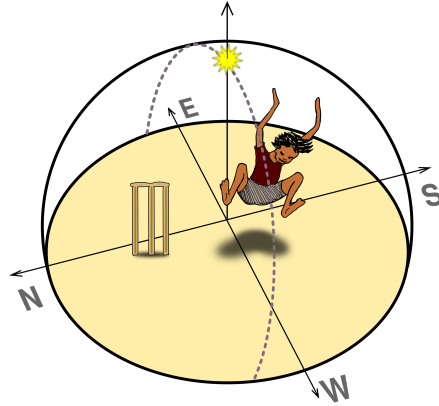
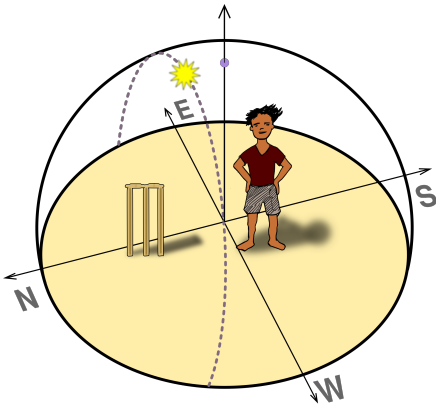
Zero Shadow Day

Winter

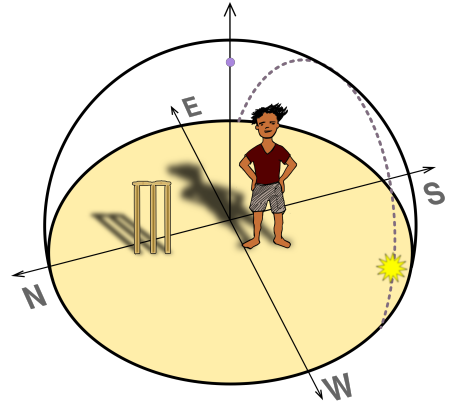
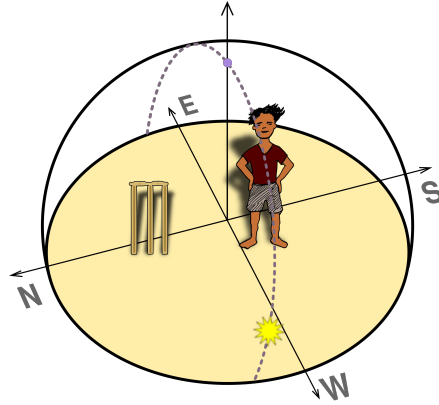
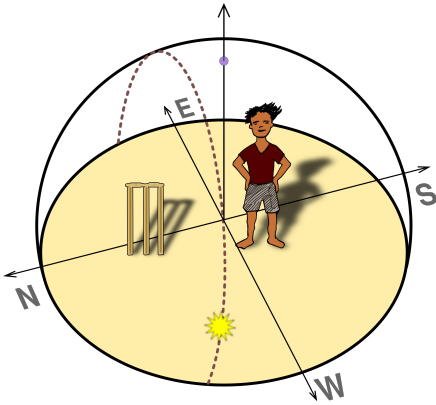
Morning



Noon



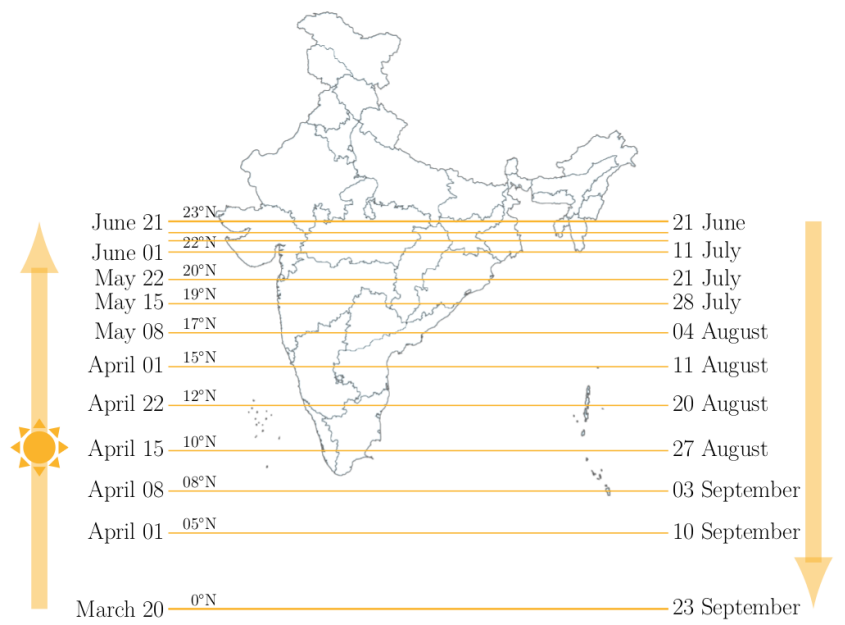
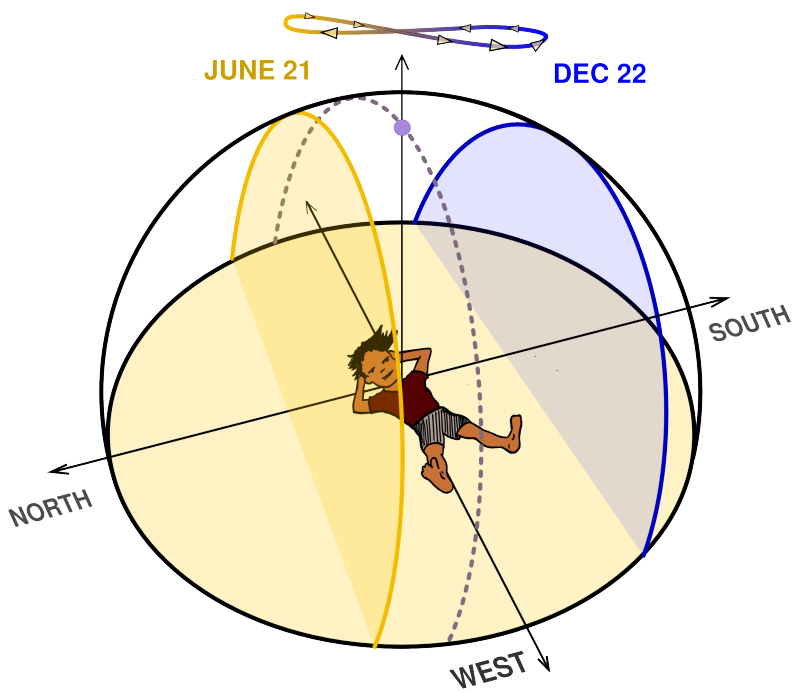
Evening



How do the directions and lengths of the shadows change throughout the day?

When the sun reaches the zenith, you won't be able to see your shadow – unless you jump!

This is the arc of the sun on the winter solstice (December 22). How do the shadows differ in winter?



Dakshinayan

21 June –
22 Dec
arc moves
southward

Uttarayan

22 Dec –
21 June
arc moves
northward

ZSD dates across India

Download the free "Zero Shadow Day" android app



Illustrations : Vijay Ravikumar

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