

## How to Understand Your Site's Solar Orientation

1. Observe the shadow cast by your house and other significant structures on the property over the course of a year. The position of the sun in the sky changes from season to season. Areas that are shaded in winter may receive sun in the summer, and vice versa.
2. Observe the character of the shade on your property throughout the year. An area beneath a tree canopy that is in deep shade during the summer may be in filtered shade after the tree drops its leaves.
3. Observe the location of the shade and sun during the course of a day. Take note of the extent of shade in the morning, at noon and in mid-afternoon.
4. Make a series of diagrams to record your observations, and refer to these while planning your home, garden and landscape improvements.
5. Include diagrams for the longest and shortest days of the year -- the first day of summer and of winter. Conditions during the rest of the year will be somewhere between these extremes.
6. Take into account the time of day an element will typically be used, and site it with respect to the kind of sunlight available on your property at that time, such as a breakfast room or an outdoor patio.
7. Determine which direction is north by referring to the plot plan attached to your deed or by using a compass. Take note of which parts of your property face the cardinal directions.
8. Plan elements for the north face that require indirect light or shady conditions, such as interior storage, closets, mechanical rooms, high or clerestory windows, or exterior shade gardens, wind buffers.
9. Select elements for the south face that require full sun such as solar collectors, thermal mass, growing greenhouse, deciduous trees that provide summer shade but let in winter sun after leaves fall, or plants that require full sun.
10. Choose elements for the east face that require the cooler conditions of morning sun such as bedrooms.
11. Find elements for the west face that can tolerate the heat of afternoon sun.

NOTE: Study photos of your property taken at different times of day and different times of year.