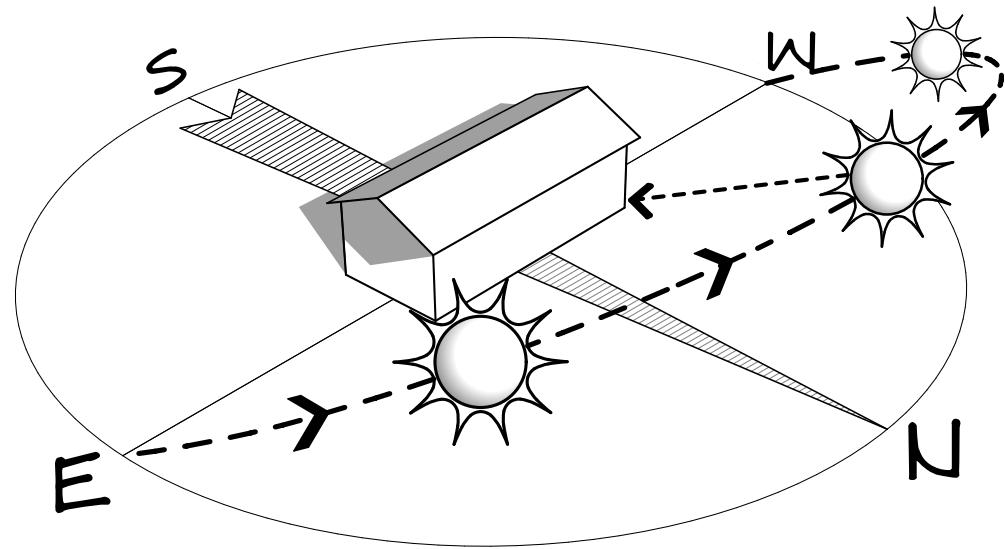


Orientation

This is the starting point and the most important design consideration for your new house. As the word 'orientation' suggests, this is about the direction your house needs to face in order to catch and enjoy natural daylight.

Daylight is a key ingredient in any successful space. It makes our homes feel comfortable, inviting and warm. Living in Melbourne, we are well aware of the need for protection from the sun in summer, and our desire for its warmth in winter. Designing a building to allow both to occur is what energy efficient house design is all about. With the right design approach we can gain free heating from the sun in winter, and reduce our need for air conditioning by blocking out the summer sun.

We begin by working with the sun's path. We know it rises in the east, and sets in the west, however it does so moving along a path in the northern part of the sky. See the diagram below.



This means the side of a building that faces north is the only side that will get the sun the whole day. The eastern side will only get the morning sun, the west just the afternoon, and the south no direct sunlight at all. Our priority is to face the rooms we occupy the most, the living rooms, to face north. This gives sunlight into these spaces the whole day. This is called 'Passive Solar Design'.

All that sun is great in winter but what about in summer? With the right design elements, and an understanding of the seasonal difference of the sun's path through the northern sky, there is a very effective solution. In winter the sun travels in a low position in the sky so the sun enters deeply through the northern windows. In summer the sun is in a higher position in the sky. By placing an overhang or sunshade above the northern windows we block out any summer sun. In winter the sun is low enough to enter below the overhang unaffected. See the diagram below.

