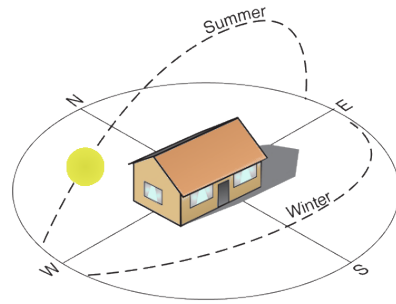
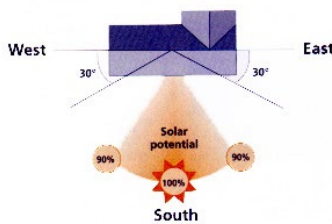


SUSTAINABILITY: ORIENTING BUILDINGS

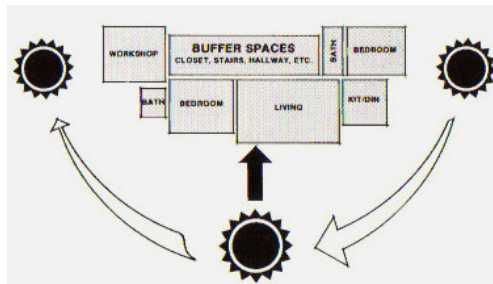


Images source: www.nachi.org

This means that the length of your home should be oriented east-west, and the smaller width of the home should be north-south. This will maximize your solar gains from the south during colder months, and minimize heat losses due to wind on the eastern and western sides.



By designing your home with frequently used rooms, such as the kitchen and living room, on the southern side you may appreciate the sunrays in the winter, and will also be relieved from the sun on warm summer days. Patios and decks can also be built with this in mind by placing them on the southern side so they receive more direct sunlight, giving you more time to use them. Areas that are less frequently used, such as the laundry room and garage, should be situated on the northern side of the house, as they will act as a buffer against cold winter winds and will not require the [natural lighting](#) benefits that you may want in your living spaces.



These windows will serve as a heat source in the winter months. You can learn more about this technique on the [passive solar](#) page.

Formula to calculate <https://andrewmarsh.com/software/sunpath2d-web/>

OR

For a quick and easy way to find the altitude of the sun at its highest point on the solstices where you live, do this quick calculation:

1. Look up your city's latitude
2. Subtract your latitude from 90° to get your Equinox
3. Sun angle at summer solstice = Equinox + 23.5°
4. Sun angle at winter solstice = Equinox - 23.5°

