SUN PATH DIAGRAM

Reference guide for solar orientation and passive design. Use the blank diagram on page 2 to sketch your own sun path analysis.

PASSIVE SOLAR PRINCIPLES

Orient Long Walls South
Maximize winter sun exposure on the longest facade.

Thermal Mass on South
Concrete, stone, or tile floors absorb daytime heat and release it at night.

Design Overhangs
Shade south windows in summer (high sun) while allowing winter sun (low angle) to enter.

Minimize West Glass
West-facing openings cause overheating from harsh afternoon sun.

DIAGRAM CHECKLIST

- [ ] Summer sun arc drawn high overhead
- [ ] Winter sun arc drawn low on horizon
- [ ] Window sizes vary by orientation
- [ ] Overhang depth noted on south face
- [ ] North arrow included

GLAZING STRATEGY BY FACADE

South	Largest windows — consistent, manageable sun. Easy to shade with overhangs.
North	Soft, even light without direct sun. Ideal for studios and offices.
East	Morning light — generally welcome, easy to manage.
West	Caution — low, hot afternoon sun. Use small windows or exterior shading.

KEY NUMBERS

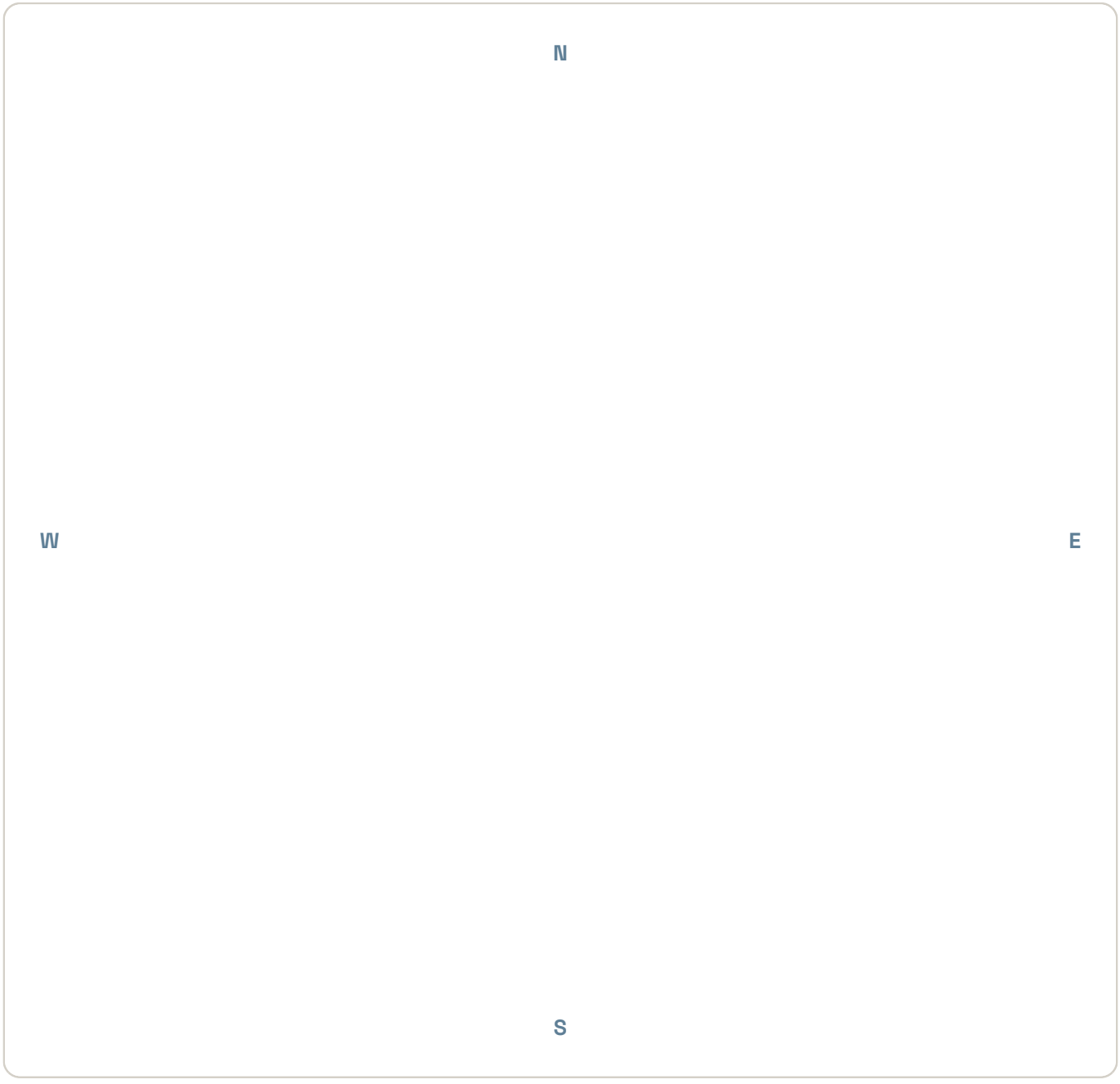
Summer Sun Angle (40°N)
·73° at noon — sun is nearly overhead, easy to shade with short overhangs.

Winter Sun Angle (40°N)
·27° at noon — low angle, penetrates deep into rooms through south-facing glass.

Overhang Rule of Thumb
For south windows, overhang depth ≈ window height ÷ 4 to ÷ 3 blocks summer sun while admitting winter sun.

YOUR SUN PATH SKETCH

Sketch your home in plan view below. Mark north, draw the summer and winter sun arcs, and annotate window sizes and overhang strategies for each facade.



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