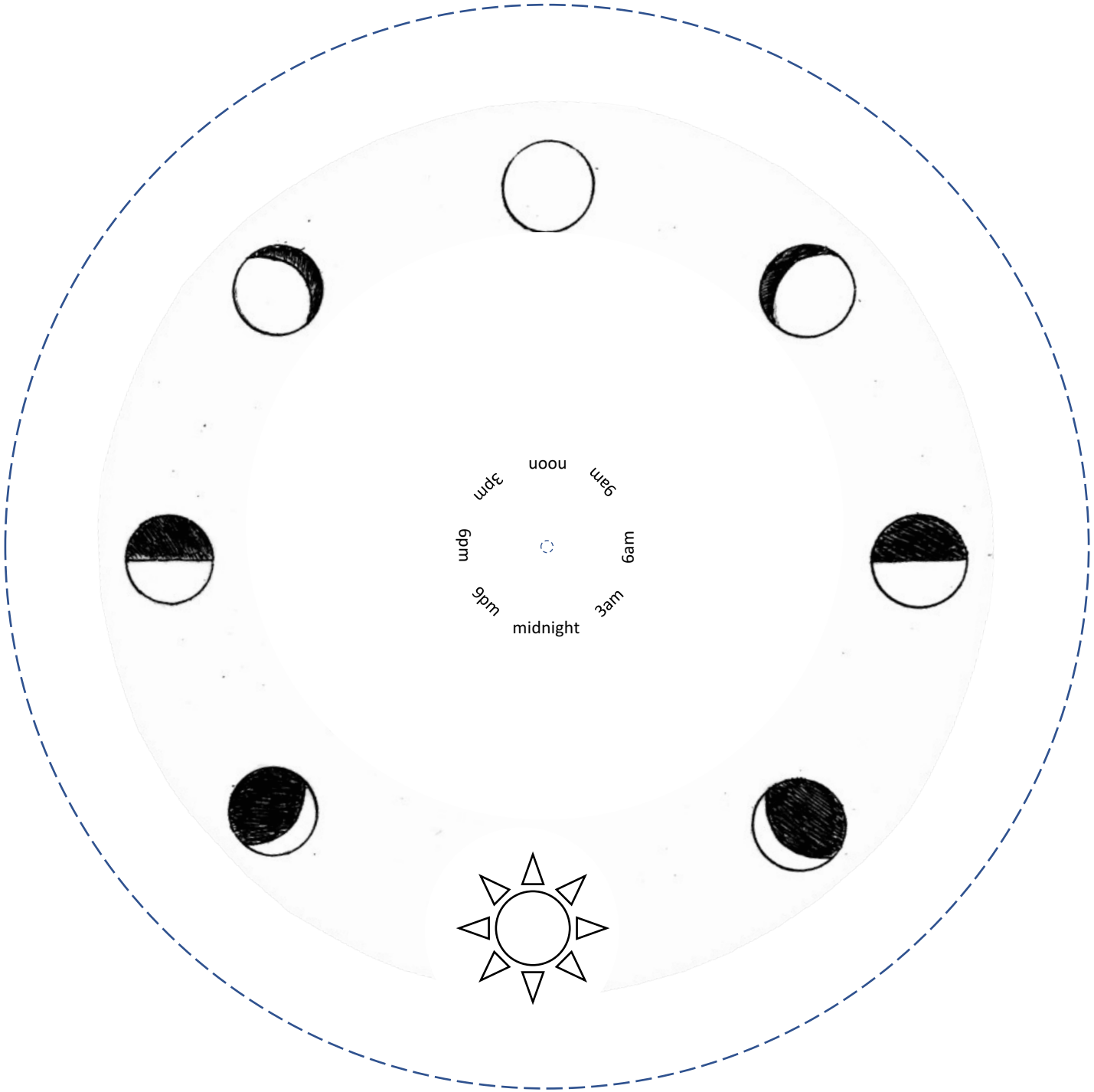


How to assemble the Northern Hemisphere Moon Clock

1. Colour or personalize the clock if desired.
2. Carefully cut along the dotted lines on each piece. Be sure to cut out the small “time”window.
3. Test how the pieces fit together and decide if you want to adjust the trim.
4. If desired, laminate both pieces of the moon clock and trim the laminated pieces.
5. Poke a hole through the centers of both pieces with a pin.
6. Attach the pieces (sky piece behind, landscape piece in front) with a brass fastener.
7. Enjoy!

Southern Horizon

Northern Hemisphere Moon Clock

East

(South Celestial Pole)

West

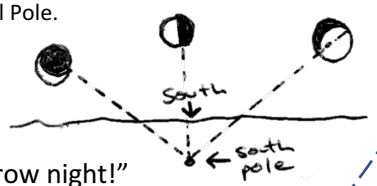
How to use

1. Identify the phase of the moon. Align that moon with its approximate position in the sky.
2. The phase of the moon tells you the relationship of its angle to the sun. So think about it: where does that tell you the sun is?
3. Identify the time.

Time

Key Navigation Tips

- The light side of the moon will always point toward the sun.
- The imaginary "line" between the moon's dark and light sides will always point toward the South Celestial Pole.



Moon phases:

"Whatever's on the right, you'll see more tomorrow night!"

→ → → → → →

Waxing Waning

Northern Hemisphere Moon Clock

Reminder:
The moon clock is a neat reminder tool, *but you don't really need it!* Remember, the phase and position of the moon tell you where the sun is. (The full moon is always opposite the sun, the quarter moon is always at right angles to the sun, etc). If you can figure out where the sun is, you can tell what time it is. The more you practice, the easier it will get to just look and know.

Limitations!
The clock's accuracy is based on:

- Standard Time. When it's Daylight Savings Time (*i.e.* summer) all the times are +1 hour.
- Your ability to really gauge the exact phase of moon ("hmm … is it closer to a quarter or a gibbous tonight?"). This can be hard, but you can estimate!
- Equinox – the clock is most accurate the closer you are to March 21 or September 21 (when sunrise/sunset is approximately 6am/6pm standard time). Things get more complicated the closer you are to solstice!*

*Since you asked: all throughout the year, including winter and summer solstice, the sun will always be due east at 6am, and due west at 6pm. However, at winter solstice (December 21) the sun will rise in the southeast and set in the southwest, so it will cross the eastern/western meridians **while it is below the horizon.** On the other hand, at summer solstice (June 21), the sun will actually rise in the northeast and set in the northwest, meaning it will cross the eastern/western meridians when it is **well above the horizon**. If you can understand all that, you're well on your way to really being in tune with the heavens! :)

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