

# Sundial (Cont...)

- 1) Describe what happened to the gnomon's (stick in the middle) shadow over the course of the day that you observed.
- 2) Describe the shadow's pattern.
- 3) What time(s) was/were the shadow the longest? What time was it the shortest?
- 4) What did the sun do in the sky from the start to the end of your observations? Describe its movement.
- 5) Describe the patterns you observed from the position of the Sun throughout the day.
- 6) When observing the gnomon's shadow, did it move from right to left or from left to right? Which way did the Sun seem to move?
- 7) Describe the movement of the shadow in terms of the cardinal directions? (north, east, south, west)
- 8) Describe the movement of the Sun in terms of the cardinal directions?
- 9) What is the relationship between the shortest shadow you observed and the position of the Sun in the sky?
- 10) On your Sundial sheet, draw a "5pm" sun and its shadow. What do you think it would look like? Why?
- 11) What do you think the sundial shadows would look like if the images were produced for two days in a row?

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Thinking ahead....

- 12) You may have heard that the Sun doesn't really move across the sky; rather, the Earth is spinning and making the Sun appear to move across the sky. From your viewpoint, is the Earth spinning toward the east or toward the west? What is your evidence?
- 13) If you were in outer space above the North Pole looking down on the Earth, would you see Earth spinning clockwise or counterclockwise?