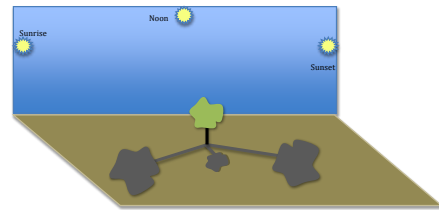
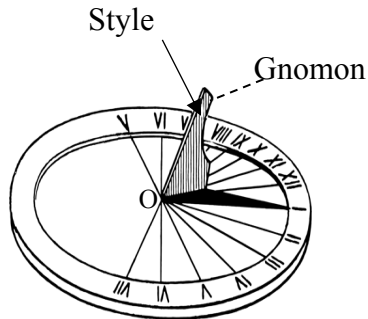


LIGHT/SHADOWS/SUNDIALS

By Suzanne Shera, M.S.
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INTRODUCTION: Sundials come in all types and beautiful patterns, with hidden scientific facts to allow for accurate time telling. A sundial usually has a gnomon or an inclined stick which cast a shifting shadow on a platform throughout the day. Simple sundials tell the time of day from sunrise to sundown, while elaborate ones also serve as a full year calendar.

In addition to offering detailed procedures to build a Sundial, this tutorial teaches fascinating facts about Earth, some orbital mechanics, and an opportunity to apply geometry in real life application. It is a suitable extension to Lightlab Chapter 4 “How Big is Your Shadow?”, designed for ages 13+. For those who want to dig even deeper, a list of excellent references are offered in the last page. Lightlab’s Chapters 1-3 and extra activities 1-3 will offer a great introduction to the nature of light from the Sun. Check out lightlabetc.com to explore these resources and more.

Genesis 1:14 -15 (KJV)

¹⁴ And God said, Let there be lights in the firmament of the heaven to divide the day from the night; and let them be for signs, and for seasons, and for days, and years: ¹⁵ And let them be for lights in the firmament of the heaven to give light upon the earth: and it was so. ”

To download the full tutorial, [go to Lightlabetc Product & Services](#). The author also plans to offer quarterly online workshops to guide you through the tutorial and building of the Sundial. Contact us for more info.

James 1:17 Every good gift and every perfect gift is from above, and cometh down from the Father of lights, with whom is no variableness, neither shadow of turning.