

CHAPTER OVERVIEW

9: Orbital Dynamics- Planets and Moons in Motion

It is perhaps odd, but quite true that when you ask most people to picture a planet, a moon, or the entire solar system, they tend to visualize a series of bodies frozen in place in a neat line as you might see on a classroom poster or a textbook illustration. Almost no one pictures moons and planets racing around in orbit, moving like horses careening around a track.

Even so, **motion** is one of the most fundamental qualities of our successful models of the solar system. Motion involves distance, time, velocity, and acceleration; it may be linear, circular, or even elliptical in nature. We're going to skirt around all the math and physics that are implied in this and focus on one thing – movement! Our goal will be to get your students to incorporate **movement** into their fundamental mental picture of the solar system.

[9.1: A Working Model of the Lunar Phases](#)

[9.2: Aristotle's Flat Moon](#)

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