

## CHAPTER OVERVIEW

### 2: Applying Models to Mechanical Phenomena

In this Chapter we continue to work with the *Energy-Interaction Model*. We add all kinds of *mechanical* interactions to the thermal interactions we treated in [Chapter 1](#). (Note: the term “mechanical” as in the phrase “mechanical interactions” is typically used to imply everything other than thermal. Since the *Energy-Interaction Model* literally applies to every kind of *interaction* that scientists have ever encountered, we will be just scratching the surface of the realm of applications of this powerful model. We will, however, devote some attention to one area of application that occurs frequently in many phenomena—all kinds of things vibrate, from atoms and molecules to bridges and skyscrapers; that is, they move back and forth or oscillate in very predictable ways.

[2.1: Where Are We Headed?](#)

[2.2: Force](#)

[2.3: Work](#)

[2.4: Mechanical Energy](#)

[2.5: Spring-Mass Oscillator](#)

[2.6: Plotting Energies](#)

[2.7: Force and Potential Energy](#)

[2.8: Looking Back and Ahead](#)

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