CHAPTER 1

Skills Practice Lab

Physics and Measurement

OBJECTIVES

- **Measure** accurately using typical laboratory equipment.
- **Measure** length and mass in SI units.
- **Determine** the appropriate number of significant figures for various measurements and calculations.
- **Examine** the relationships between measured physical quantities by using graphs and data analysis.

MATERIALS LIST

- **2 rectangular wooden blocks**
- **15 cm metric ruler**
- **balance**
- **meterstick**
- **rectangular wooden block**
- **stopwatch**

In this laboratory exercise, you will gain experience making measurements as a physicist does. All measurements will be made using units to the precision allowed by your instruments.

SAFETY

- **Perform this lab in a clear area. Falling or dropped masses can cause serious injury.**

PROCEDURE

Preparation

1. Read the entire lab procedure, and plan the steps you will take.

Measuring Length, Width, Thickness, and Mass

2. If you are not using a datasheet provided by your teacher, prepare a data table in your lab notebook with seven columns and five rows, as shown below. In the first row, label the second through seventh columns *Trial 1*, *Trial 2*, *Trial 3*, *Trial 4*, *Trial 5*, and *Trial 6*. In the first column, label the second through fifth rows *Length (cm)*, *Width (cm)*, *Thickness (cm)*, and *Mass (kg)*.

	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6
Length (cm)						
Width (cm)						
Thickness (cm)						
Mass (kg)						