

Introduction: Microorganisms are much too small to be seen with the unaided eye; they must be observed with a microscope. The word microscope is derived from the Latin word micro (small) and the Greek word skopos (to look at). Some microbes are more readily visible than others because of their larger size or more easily observable features. Many microbes, however, must undergo several staining procedures to be seen clearly.

Units of Measurement: When measuring microorganisms, we use the metric system. A major advantage of the metric system is that units relate to each other by factors of 10. Thus, 1 meter (m) equals 10 decimeters (dm) or 100 centimeters (cm) or 1000 millimeters (mm).

Microorganisms are measured in even smaller units, such as micrometers and nanometers. A micrometer ( $\mu\text{m}$ ) equals 0.000001 m ( $10^{-6}$ ). The prefix micro indicates the unit following it should be (divided by 1 million, or  $10^6$ ). A nanometer (nm) equals 0.000000001 m ( $10^{-9}$ ).