The **cell** is the basic structural and functional unit of all known living[organisms](http://en.wikipedia.org/wiki/Organism). It is the smallest unit of life that is classified as a living thing, and is often called the building block of life.[[1]](http://en.wikipedia.org/wiki/Cell_%28biology%29#cite_note-Alberts2002-0) Organisms can be classified as [unicellular](http://en.wikipedia.org/wiki/Unicellular) (consisting of a single cell; including most[bacteria](http://en.wikipedia.org/wiki/Bacteria)) or [multicellular](http://en.wikipedia.org/wiki/Multicellular%22%20%5Co%20%22Multicellular) (including [plants](http://en.wikipedia.org/wiki/Plants) and [animals](http://en.wikipedia.org/wiki/Animals)). Humans contain about 10 [trillion](http://en.wikipedia.org/wiki/Orders_of_magnitude_%28numbers%29#1012) (1013) cells. Most plant and animal cells are between 1 and 100 µm and therefore are visible only under the microscope.[[2]](http://en.wikipedia.org/wiki/Cell_%28biology%29#cite_note-1)

The cell was discovered by [Robert Hooke](http://en.wikipedia.org/wiki/Robert_Hooke) in 1665. In 1835, before the final cell theory was developed, [Jan Evangelista Purkyně](http://en.wikipedia.org/wiki/Jan_Evangelista_Purkyn%C4%9B) observed small "granules" while looking at the plant tissue through a microscope. The [cell theory](http://en.wikipedia.org/wiki/Cell_theory), first developed in 1839 by [Matthias Jakob Schleiden](http://en.wikipedia.org/wiki/Matthias_Jakob_Schleiden) and [Theodor Schwann](http://en.wikipedia.org/wiki/Theodor_Schwann), states that all organisms are composed of one or more cells, that all cells come from preexisting cells, that vital functions of an organism occur within cells, and that all cells contain the [hereditary information](http://en.wikipedia.org/wiki/Genetics) necessary for regulating cell functions and for transmitting information to the next generation of cells.[[3]](http://en.wikipedia.org/wiki/Cell_%28biology%29#cite_note-2)

The word *cell* comes from the [Latin](http://en.wikipedia.org/wiki/Latin) *cellula*, meaning "a small room". The descriptive term for the smallest living biological structure was coined by[Robert Hooke](http://en.wikipedia.org/wiki/Robert_Hooke) in a book he published in 1665 when he compared the [cork](http://en.wikipedia.org/wiki/Cork_%28material%29) cells he saw through his microscope to the small rooms monks lived in.[[4]](http://en.wikipedia.org/wiki/Cell_%28biology%29#cite_note-Hooke-3)