

Lesson 1

What are the building blocks of life?

How are a dandelion and a cat alike? Both are living things. They are both made from the building blocks of life.

What Cells Are

A cell is the building block of life. A **cell** is the smallest unit of a living thing that can perform all life processes. All living things are made of cells.

Some living things are made up of just one cell. Most living things, like plants and animals, are many-celled. Every part of a cat—from its muscles to its blood—is made of thousands, millions, even billions of cells.

Many cells have a particular role. Some cells help the living thing get energy it uses to grow, develop, and reproduce. Other cells help it get rid of what it doesn't need. Others help it move or react to its environment. Still other cells may protect the living thing or help it stay healthy. All cells come only from other living cells.

Scientists use microscopes to study cells. A microscope is a tool that makes objects seem larger than they really are. Most cells are very small and hard to see. By using a microscope, scientists are able to look at a cell and see details that help them learn about the cell.



A microscope helps you see cells.

1. **✓ Checkpoint** Why are cells considered the building blocks of living things?
2. **Math in Science** In 1675, a Dutch scientist named Anton van Leeuwenhoek (LAY vehn hook) used a simple microscope to observe cork cells. How many years ago did van Leeuwenhoek observe these cells? Use mental math.