

## Answer Key For Cell: The Basic Unit of Life Note-taking Guide

### Cell: The Basic Unit of Life

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*survival, reproduce, different, basic, grow, amoeba, multicellular, energy, cell*

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Living things have the ability to grow , obtain and use energy, respond to the environment, and reproduce.

The cell is the smallest and most basic unit of life.

The single-celled or unicellular amoeba performs all the functions of life that are essential for its survival.

Humans are multicellular organisms that have many different types of cells to perform different functions.

### All Cells: In Detail

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*membrane, shapes, microscope, outer, blueprint, small, rod-shaped, DNA, electron, cell, million, gatekeeper, oval, function*

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The average animal cell is very small, about 10 micrometers, and that is why we can't see most cells.

A compound light microscope can be used to view individual cells up to 400 times their original size while an electron microscope can magnify up to 2 million times.

Cells come in all varieties of shapes such as oval , spherical, spindle-shaped, rod-shaped, crescent-shaped, and irregular shapes.

A cell's shape is determined by the function it performs.

Every cell has a cell membrane which is the outer, protective part that acts like a gatekeeper.

All cells contain an organism's genetic material, or DNA, which acts as the blueprint for life.

## Eukaryotic and Prokaryotic Cells

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*ten, proteins, cytoplasm, nucleus, DNA, difference, plant, have, bacterial, smaller, brain, most, eukaryotic, organelles, prokaryotic, examples, don't*

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Most cells have a nucleus which acts like the brain and controls all the cell's activities.

Cells that have a nucleus are called eukaryotic cells.

You can find a cell's DNA inside the nucleus of a eukaryotic cell.

Eukaryotic cells contain structures called organelles that make proteins, package and transport materials, and release energy from nutrients.

Cells which don't have a nucleus, such as a bacterial cell, are called prokaryotic cells.

Prokaryotic cells have DNA which lies freely out in the cytoplasm.

Having a nucleus is the most obvious difference between a eukaryotic and prokaryotic cell.

Prokaryotic cells are usually around ten times smaller than eukaryotic cells.

Plant and animal cells are examples of eukaryotic cells.