

11/4/10

Eukaryotic and Prokaryotic Cells

Purpose:

Determine the differences between eukaryotic and prokaryotic cells.

What do I need for today's notes?

You need clean lined paper. Start with two pages, three if you write BIG and/or leave lots of space when you write.

Take notes in pencil. Its easier to erase and easier to read at a later date.

Last, you need Enthusiasm and Hard Work.

Title Your Page Unit 3 Notes PART 1	Name and Period				
	<p>Title Your Note Section</p> <h2>Eukaryotic and Prokaryotic Cells</h2> <h3>Two Main Types of Cells</h3> <table border="1"><tr><td>Prokaryotes</td><td>Prokaryotic cells lack a nucleus or any other membrane-contained organelles. Most prokaryotes are unicellular but there are a few that have multicellular stages in their life cycle.</td></tr><tr><td>Eukaryotes</td><td>Eukaryotic cells have a nucleus and other organelles enclosed within a membrane.</td></tr></table>	Prokaryotes	Prokaryotic cells lack a nucleus or any other membrane-contained organelles. Most prokaryotes are unicellular but there are a few that have multicellular stages in their life cycle.	Eukaryotes	Eukaryotic cells have a nucleus and other organelles enclosed within a membrane.
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Eukaryotes	Eukaryotic cells have a nucleus and other organelles enclosed within a membrane.				

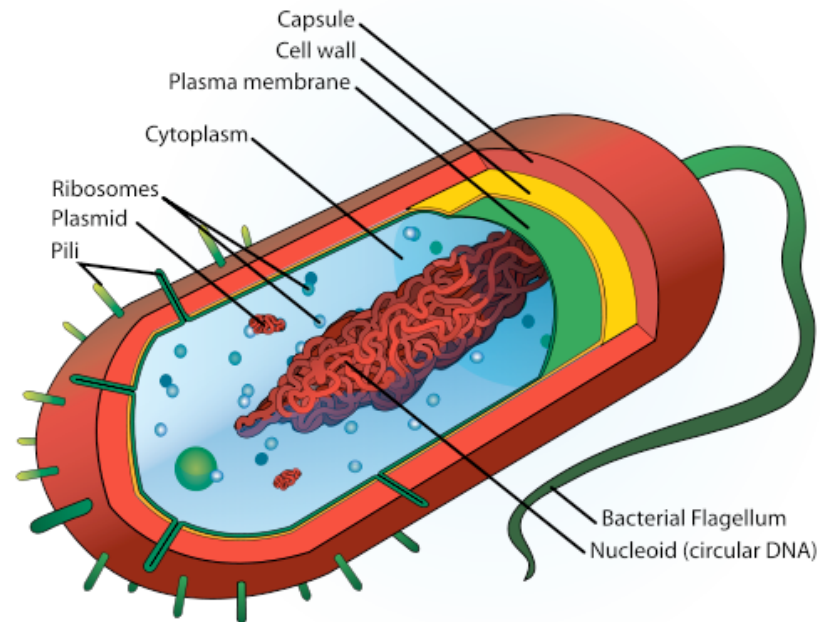
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Prokaryotic Cells

Root Words

Pro is Greek for "before" and **karyon** meaning "nut" or "kernel"

Prokaryote
Diagram



Two Domains

Prokaryotes are divided into two domains (groups):

Bacteria and Archaea

(there are three domains of life - all life is categorized in one of three domains)

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Eukaryotic Cells

Root Words

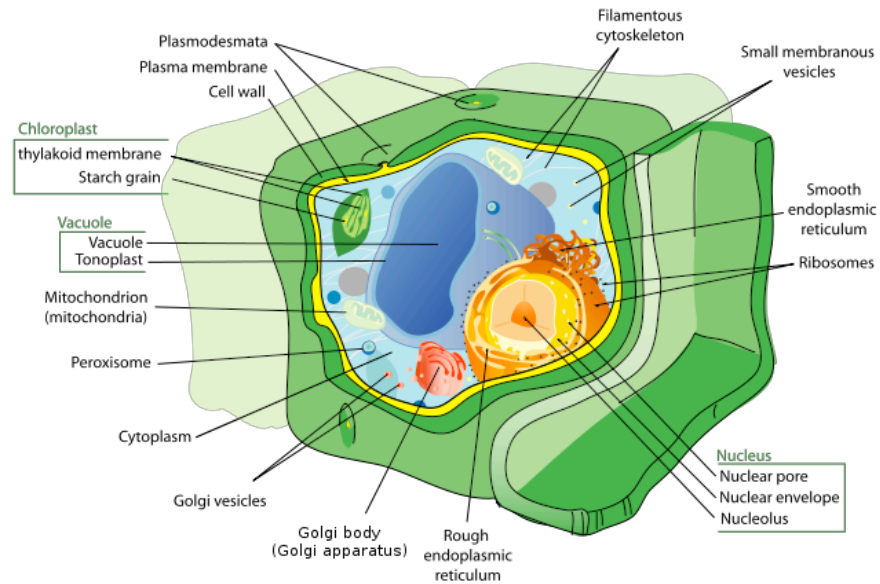
Only One Domain

Types of Eukaryotic Cells

Eu is Greek for "good, noble, and true" and karyon meaning "nut" or "kernel"

Eukaryotic cells are in their own domain.
There are, however, many different types of eukaryotic cells!!!

- Animal Cells
- Plant Cells
- Fungal Cells
- Many MORE!



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Differences

Differences Between Prokaryotes and Eukaryotes

Pro

Simple internal structure

Primitive type of cell (appeared 3.8 billion years ago)

No nucleus (genetic material floats around in the cytoplasm)

No organelles

Examples:

E. coli

Staphylococcus

Eu

Complex internal structure

More recent type of cell (appeared 1 billion years ago)

Nuclear membrane surrounding genetic material

Numerous organelles contained within a membrane

Examples:

Amoeba

All Animals

All Plants

...continued

Archaea

**Watch the Video
and take notes!**



Archaea.mov

...continued

Summary:

This is the MOST IMPORTANT part of your notes. Write an excellent summary of what we discussed today. This should be at least 3 sentences!

11/8/10

Cell Organization

Purpose:

Identify how cells organize to form an organism and also how eukaryotic cells are internally organized.

What do I need for today's notes?

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Title Your Page

Unit 3 Notes Part 2

Name and Period

Title Your Note Section

Organization of Life

How is life organized?

Atoms

Molecules

Organic Compounds

Organelles

Cells

Tissues

Organs

Organ Systems

Organisms

Species/Population

Ecosystem

Biosphere

Need 2
Know
4
QUIZ

...continued

Specialization

Specialization

The specific organization of a cell and its structure that allows it to perform a specific function.

Examples:

Job

- Blood cells have different types: One type fights infections, another type delivers oxygen to muscles.
- There are many types of cells that do different jobs: Eye cells, skin cells, liver cells, muscle cells

STEM cells are different!



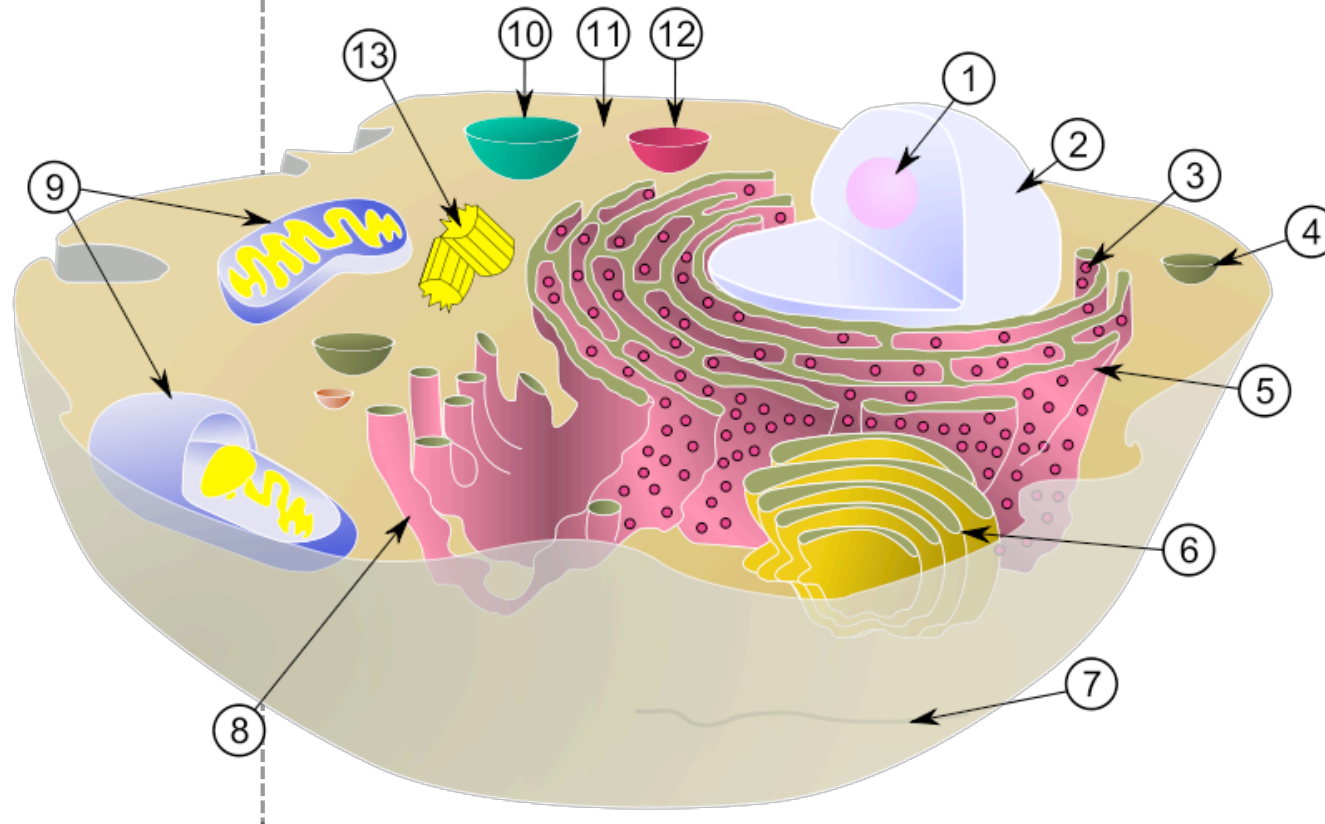
Blood Cell

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Organelles

Organelles

A structure in a cell that is enclosed by a membrane and that performs a particular function.



...continued

Video: "Introducing the Cell"

Take short notes, we will pause occasionally. Pay attention to the types and functions of different organelles.



...continued

Summary:

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