

1/28/15

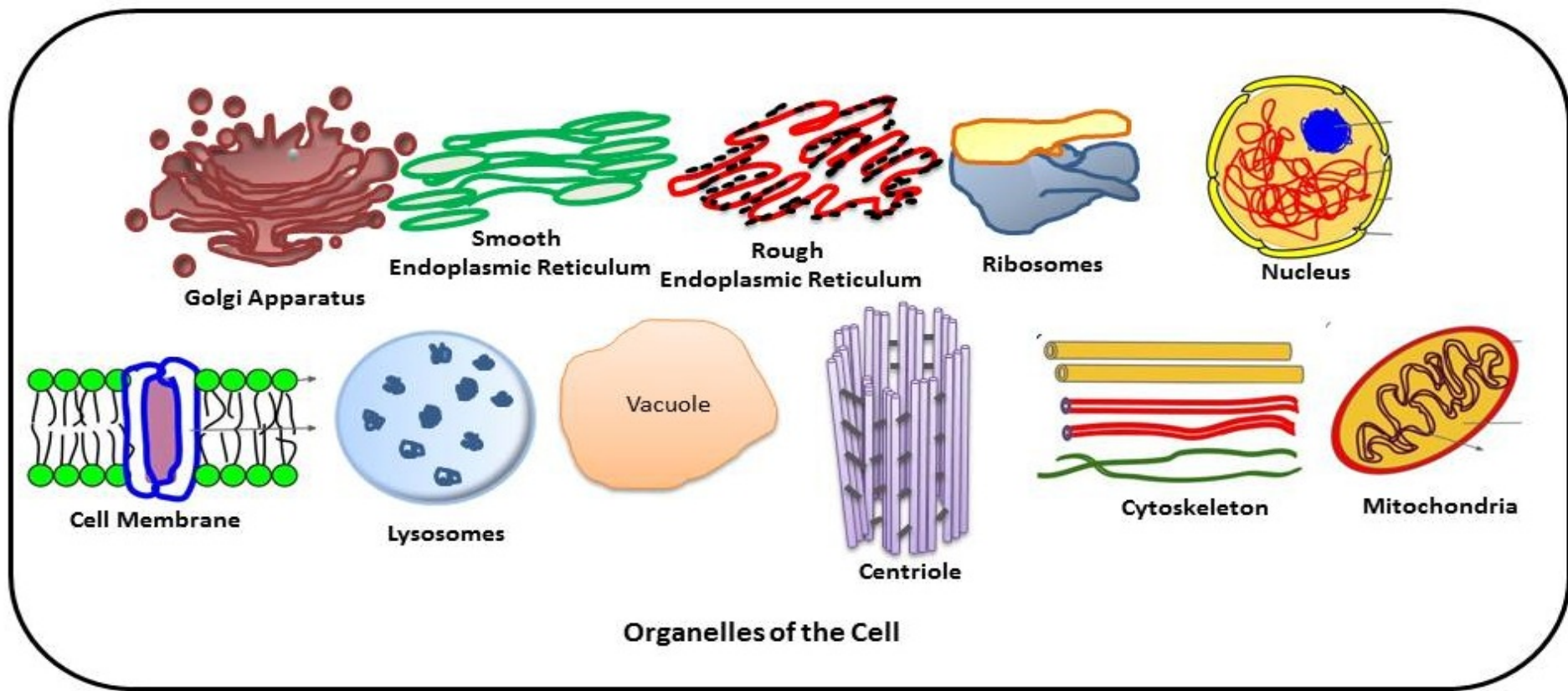
55 Which systems work most closely together to carry oxygen to cells and to remove carbon dioxide waste?

- A** digestive and excretory
- B** skeletal and muscular
- C** circulatory and respiratory
- D** nervous and reproductive

You must explain why your answer is correct.

Please write the page number in your book that supports your explanation.

Use the index of your book to help you.



Organelles of the Cell

Namrata Heda

Cells Structure

SPI 0707.1.1 Identify and describe the function of the major plants and animal cell organism

What you will Learn

- Evaluate the functions of each part of a cell.
- Explain how important a nucleus is in a cell.

Why is it important?

If you know how organelles function, it's easier to understand how cells survive.

Essential Questions

- Why are the all the parts of a cell important?

<https://www.youtube.com/watch?v=-zafJKbMPA8> 3:09 minutes

Common Cell Traits

What are cells? [View video](#)

<https://www.brainpop.com/science/cellularlifeandgenetics/cells/>

Common Cell Traits

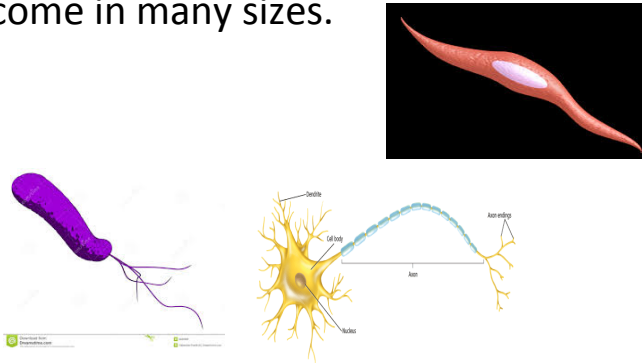
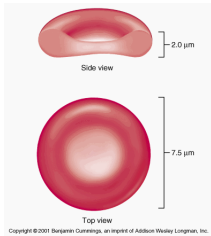
A cell -

- is smallest unit that is capable of performing life functions.
- have an outer covering called a ...
 - cell membrane -made up of one or more layers of linked molecules. (Skin)
- Inside every cell is a gelatin-like material called ...
 - cytoplasm - hereditary material that controls the life of a cell. (Blood)

Common Cell Traits

• Comparing Cells

- Cells come in many sizes.



Cell's shape might tell about its function.

- Nerve-send/receives impulses from other cells but cannot change shape.
- Muscle and some blood cells can change shape.
- Plant stems – have long hollow cells with openings at their ends. Also, carry food and water throughout the plant.

• Cell Types

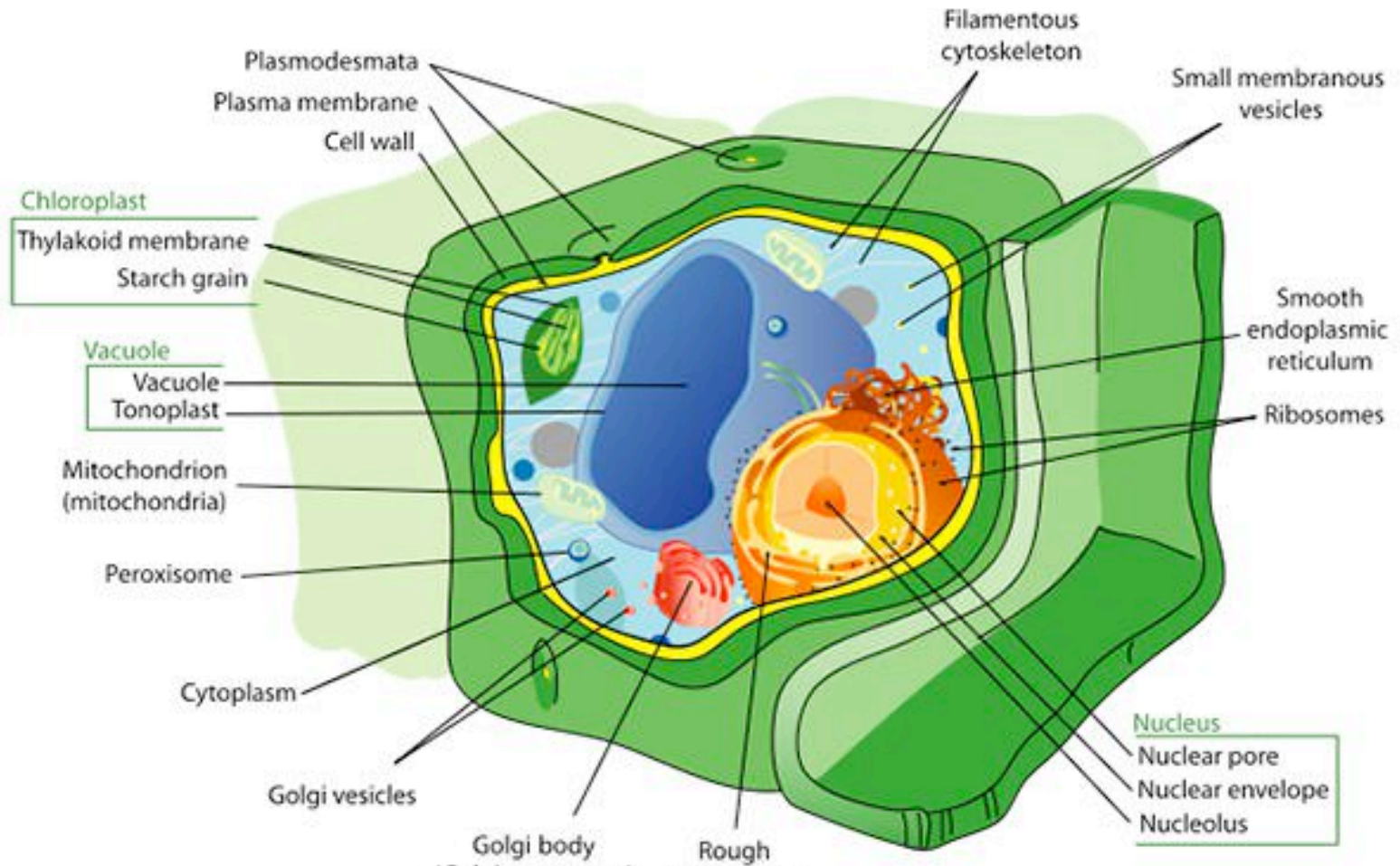
- Two groups of cells

1. Prokaryotic -no membrane to bound structure inside the cell.
2. Eukaryotic – membrane bound structures
3. <https://www.youtube.com/watch?v=ruBAHij4EA> 5:52 minutes
4. Using the video, write the similarities and differences between the two cells.

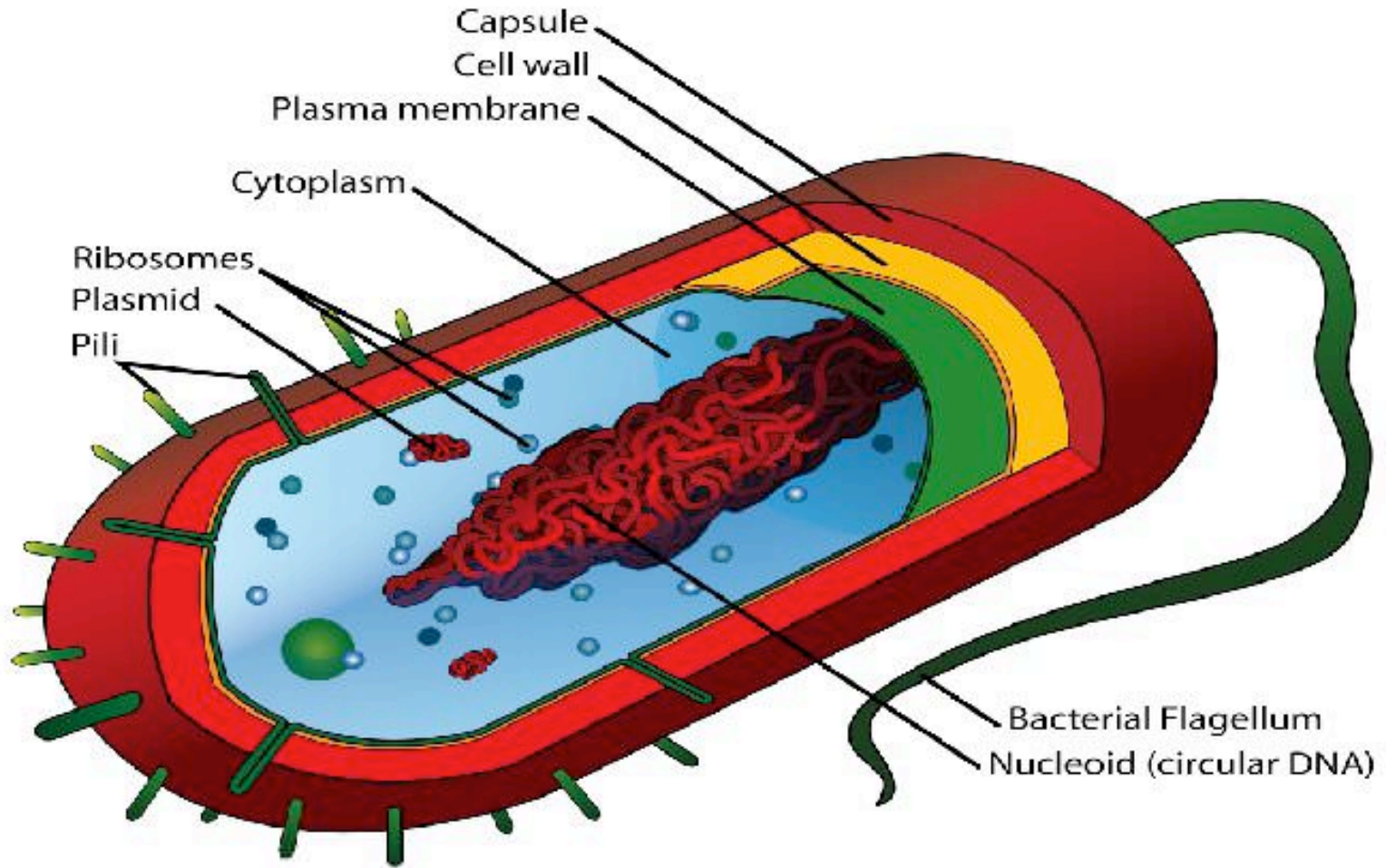
Prokaryotic vs. Eukaryotic

- The distinction between **prokaryotes** and **eukaryotes** is considered to be the most important distinction among groups of organisms. Eukaryotic cells contain membrane-bound organelles, such as the nucleus, while prokaryotic cells do not. Differences in cellular structure of prokaryotes and eukaryotes include the presence of mitochondria and chloroplasts, the cell wall, and the structure of [chromosomal DNA](#).
- Prokaryotes were the only form of life on [Earth](#) for millions of years until more complicated eukaryotic cells came into being through the process of evolution.

Eukaryotic



Prokaryotic



Listen and Take Notes

- https://www.youtube.com/watch?v=g4L_QO4WKtM
- Note the cell structure and function of each part. 7: 12 minutes

Quiz Time

- <https://www.brainpop.com/science/cellularlifeandgenetics/cells/>
- Use whiteboards, eraser and markers

Reflection

- What have I learned about cells?
- What do I still wonder about cells?
- I still confused about _____

Let's Create

- Use what you know about cells to create a poster/visual representation of the cell.
- You and your table members will complete a plant and animal cell poster model
- Label the cells and explain its function using an analogy or comparison of organelles using everyday items, jobs, location, etc.