

CELL WALL

- provides physical barrier

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CELL MEMBRANE

- plasma membrane
- fluid mosaic model
- contains phospholipids and lipoproteins

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NUCLEUS (containing DNA)

- in eukaryotic cells
- surrounded by nuclear envelope
- contains nucleolus

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NUCLEAR MATERIAL (not bound by membrane)

- in prokaryotic cells
- circle of DNA

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PLASMID

- in prokaryotic cells
- circles of DNA able to replicate independently

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NUCLEAR MEMBRANE

- in eukaryotic cells
- double layer around nucleus
- pores allow movement of substances in and out of nucleus

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CYTOPLASM

- viscous fluid containing proteins as well as organic and inorganic molecules

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ENDOPLASMIC RETICULUM (ER)

- network of internal membranes
- rough ER contains ribosomes, making proteins
- smooth ER for lipid and steroid synthesis

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80S RIBOSOME

- in eukaryotic cells
- made from ribosomal RNA and protein
- synthesises proteins
- free in cytoplasm and membrane-bound

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70S RIBOSOME

- in prokaryotic cells
- made from ribosomal RNA and protein
- synthesises proteins
- free in cytoplasm and membrane-bound

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MITOCHONDRION

- in cytoplasm of eukaryotic cells
- bounded by double membrane
- involved in respiration

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CHLOROPLAST

- bound by double membrane
- contains stroma and grana formed of stacked thylakoids, with intergranal lamellae

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GOLGI APPARATUS

- complex membrane system in cytoplasm
- modifies, packages and directs newly formed proteins to where required

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LYSOSOME

- spherical body produced by Golgi apparatus
- contains enzymes including hydrolases

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MICROTUBULE

- part of cytoskeleton
- helps maintain cell structure
- movement of organelles and cytoplasm

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FLAGELLUM

- aids movement
- anchored in the cytoplasm
- characteristic of unicellular microorganisms

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VACUOLE

- bounded by single membrane
- food vacuoles
- phagocytic vacuoles
- contractile vacuoles

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CAPSULE

- mucilaginous external layer

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