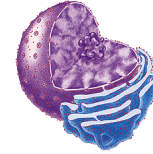


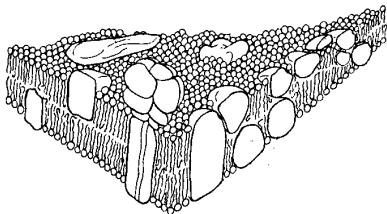
Parts of Prokaryotic & Eukaryotic Cells



CELL THEORY

1. All living things are made of _____.
2. Cells are the basic unit of _____ & _____ in an organism.
3. All cells come from the reproduction of _____ cells.

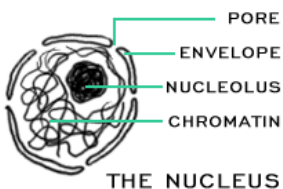
CELL MEMBRANE MODEL



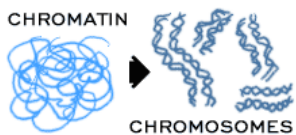
- Phospholipids and proteins move _____ or side to side for short distances.
- Proteins make a pattern on the surface known as the _____ model.

NUCLEUS and NUCLEOLUS

NUCLEUS is:



- Surrounded by _____ MEMBRANE called the NUCLEAR _____
- Serves as the _____ CENTER OF CELL
- Nuclear _____ allow molecules in and out
- CONTAINS CELL'S GENETIC MATERIAL (_____)
- Contains NUCLEOLUS (Dark spot) which makes _____ (RNA)

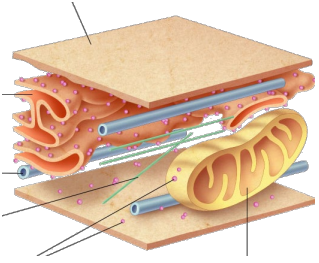


DNA is scrunched up as _____ in DIVIDING CELLS

DNA is spread out as _____ in NON-

DIVIDING CELLS

CYTOSKELETON



Made of PROTEINS called

_____ and _____

FUNCTION: _____

LYSOSOMES

Sac containing _____

FUNCTION:

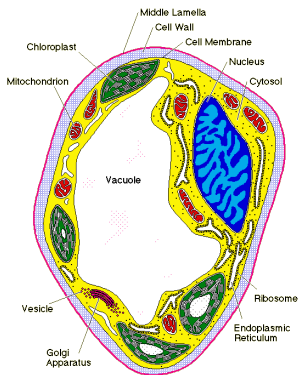
Digests: _____

Plays a role in _____ "programmed cell death"

Cell suicide for the good of the _____

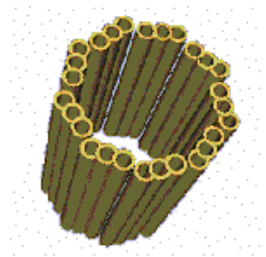
VACUOLE

STORAGE SPACE FOR: _____



Huge in _____ cells, small in _____
cells, NOT in _____ cells.

CENTRIOLES



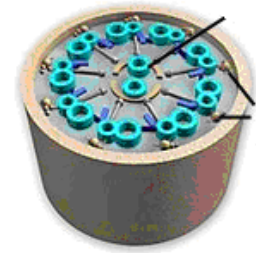
Made of PROTEINS called _____

Only seen in _____ cells during cell division

Function: _____

CILIA & FLAGELLA

Made of PROTEINS called _____
organized in a _____ arrangement
that help with _____



CILIA: _____ & _____
FUNCTION _____

FLAGELLA: _____ & _____
FUNCTION _____

RIBOSOMES

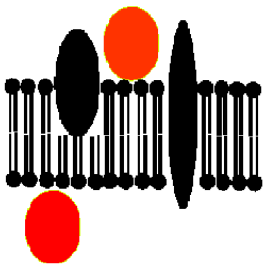
Can be _____ in the cytosol or _____ to
the surface of Rough ER

MADE OF _____ & _____

FUNCTION: _____

CELL MEMBRANE or PLASMA MEMBRANE

Made mainly of _____ and _____



HYDROPHOBIC "tails" of phospholipids make molecules line up
as a LIPID _____ with POLAR heads facing
_____ and NON-POLAR tails facing _____

Proteins attached to surface (inside or outside)=

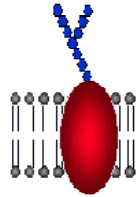
Proteins stuck into membrane = _____
(can go part way in or all the way through)

Membranes are _____ when
they allow certain molecules to pass through; but keep others out.

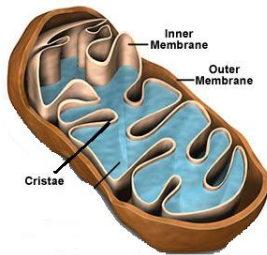
_____ is the "gel-like material + organelles" between nucleus and cell membrane

OTHER MOLECULES:

- **GLYCOPROTEINS** with attached _____ tails to recognize self
- Contain the steroid _____ to make membranes more flexible



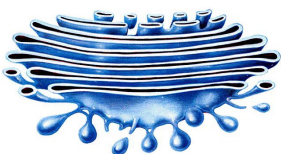
MITOCHONDRION (plural: MITOCHONDRIA)



Surrounded by _____ membrane.
Contains its own _____.
Called the _____ of cell
Burns _____ to release energy.
Stores energy released as _____.
_____ outer membrane

Folded inner membrane = _____ (increases
_____ for more chemical reactions)

GOLGI APPARATUS (BODY)



Looks like a stack of flattened _____.
FUNCTION: Modify, sort, and package substances from ER for _____ out of cell.

ENDOPLASMIC RETICULUM(ER)



Internal network of _____.

Rough ER: Attached ribosomes make _____ which are modified & exported.

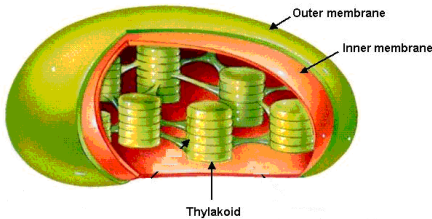
ROUGH ER / SMOOTH ER

Rough ER has _____ on its surface, while _____ does not.

FUNCTION ROUGH ER: _____

FUNCTION SMOOTH ER: _____

CHLOROPLASTS



Surrounded by _____ membrane

Has its own _____

Outer membrane _____

_____ membrane sacs called

_____ contain CHLOROPHYLL where

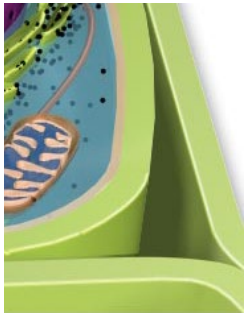
_____ happens. Stacks of thylakoids called

_____. Gel like material around thylakoids called

_____.

FOUND ONLY IN _____ CELLS

CELL WALL



Found OUTSIDE the _____.

Provides _____ & _____.

_____ in the cell wall makes plant cells sturdy.

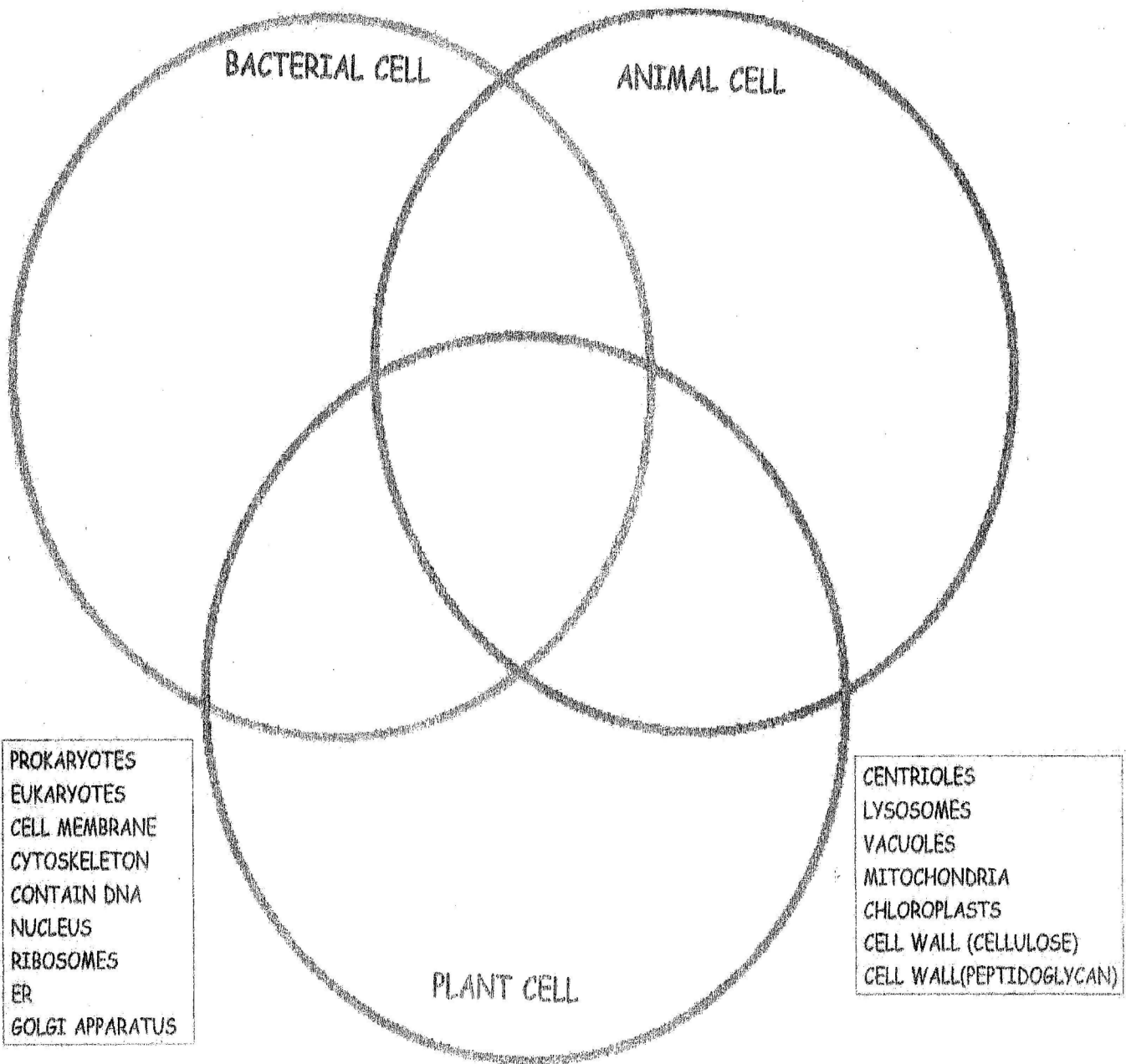
Bacteria have cell walls made of _____ instead of cellulose.

PROKARYOTES

_____ are the most common prokaryotic cell. They do not have a _____, but do contain a single _____ made of DNA.

Like all cells, bacteria are surrounded by a _____ which contains the gel-like _____ of the cell.

USE WORDS FROM THE WORD BANKS TO COMPLETE THE VENN DIAGRAM COMPARISON



Modified from: http://brookings.k12.sd.us/biology/other_units.htm