

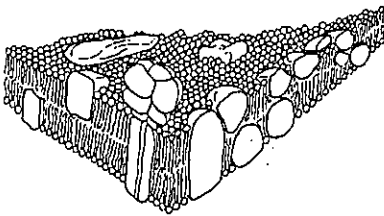
Parts of Prokaryotic & Eukaryotic Cells



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.

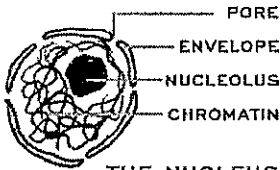
CELL MEMBRANE MODEL



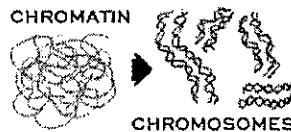
- Phospholipids and proteins move _____ or side to side for short distances.
- Proteins make a pattern on the surface known as the _____ model.

NUCLEUS and NUCLEOLUS

NUCLEUS is:



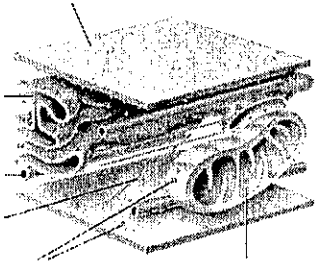
- THE NUCLEUS Surrounded by _____ MEMBRANE called the NUCLEAR _____
- Serves as the _____ CENTER OF CELL
- Nuclear _____ allow molecules in and out
- CONTAINS CELL'S GENETIC MATERIAL (_____)
- Contains NUCLEOLUS (Dark spot) which makes _____ (RNA)



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:

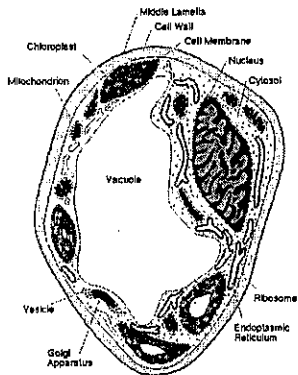
Digests: _____

Plays a role in _____ "programmed cell death"

Cell suicide for the good of the _____

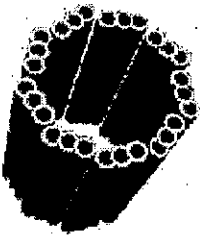
VACUOLE

STORAGE SPACE FOR: _____



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

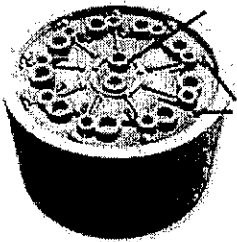
CENTRIOLES



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 _____

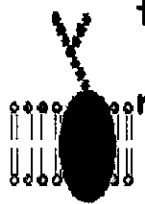
Proteins attached to surface (inside or outside)= _____
Proteins stuck into membrane = _____
(can go part way in or all the way through)

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

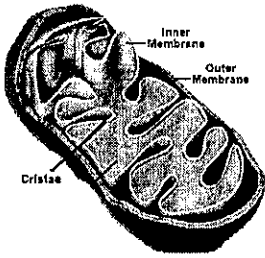
_____ is the "gel-like material + organelles" between nucleus and cell membrane

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

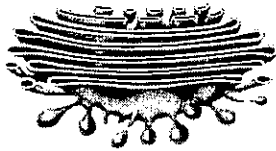
Burns _____ to release energy.

Stores energy released as _____.

_____ outer membrane

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

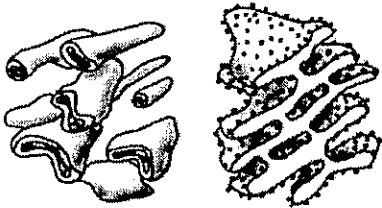
GOLGI APPARATUS (BODY)



Looks like a stack of flattened

FUNCTION: Modify, sort, and package substances from ER for
_____ out of cell.

ENDOPLASMIC RETICULUM(ER)



Internal network of _____.

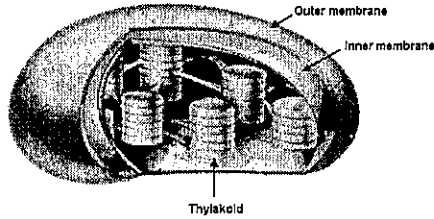
Rough ER: Attached ribosomes make _____ which are
modified & exported.

ROUGH ER / SMOOTH ER

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

FUNCTION ROUGH ER: _____
FUNCTION SMOOTH ER: _____

CHLOROPLASTS



Surrounded by _____ membrane

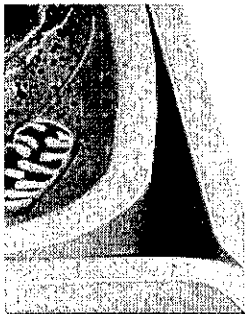
Has its own _____

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.

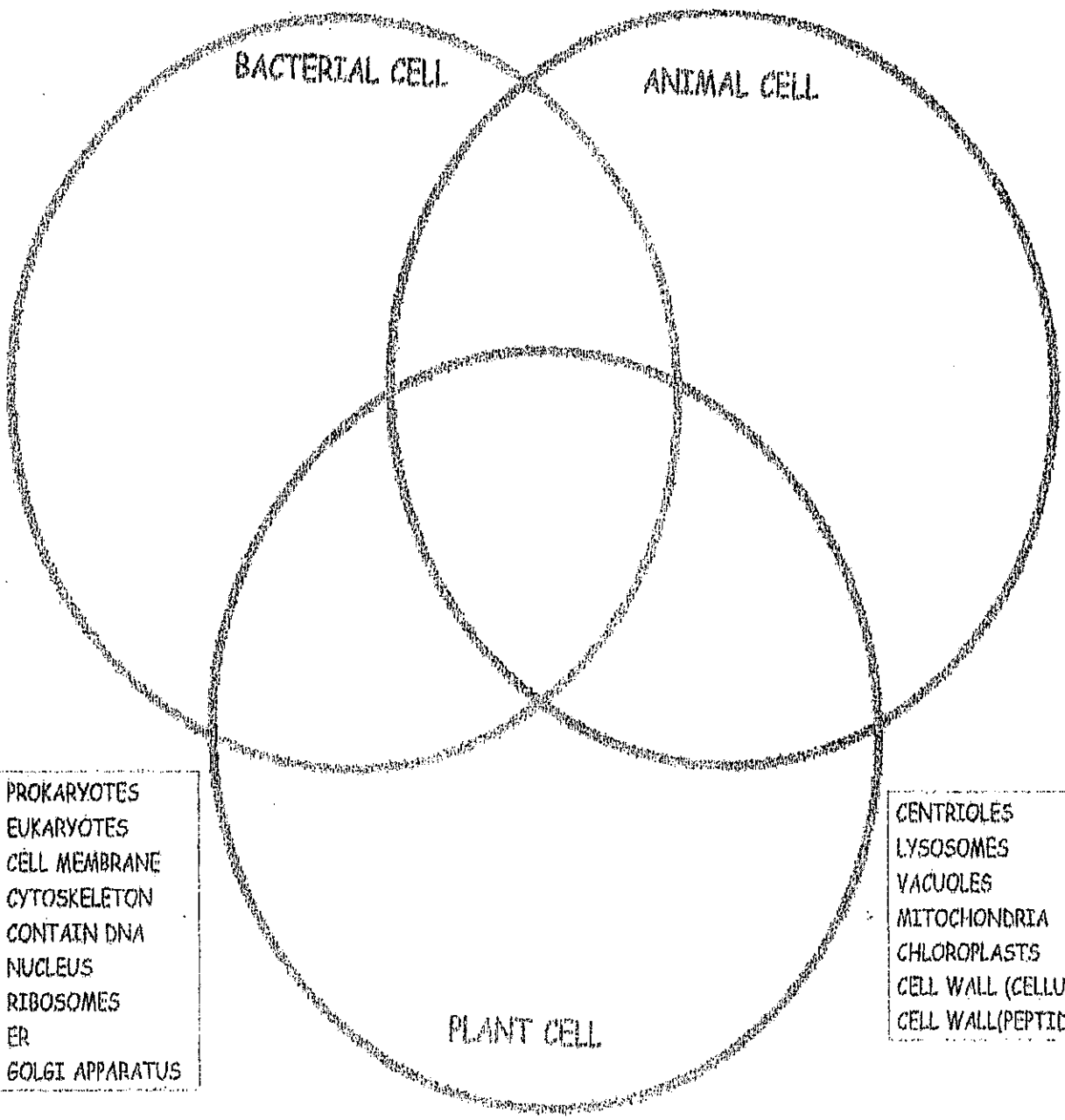
Bacteria have cell walls made of _____ instead of
cellulose.

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



- PROKARYOTES
- EUKARYOTES
- CELL MEMBRANE
- CYTOSKELETON
- CONTAIN DNA
- NUCLEUS
- RIBOSOMES
- ER
- GOLGI APPARATUS

- CENTRIOLES
- LYSOSOMES
- VACUOLES
- MITOCHONDRIA
- CHLOROPLASTS
- CELL WALL (CELLULOSE)
- CELL WALL (PEPTIDOGLYCAN)

