CHAPTER 7 – CELL STRUCTURE AND FUNCTION

BE PREPARED FOR THE TEST BY:

1. Re-reading the chapter & re-viewing your notes & worksheets
2. Take the online chapter quiz & use this study sheet

Be able to state the cell theory.

How do cells compare is size? (ex Plant cell vs animal vs bacteria)

How is surface area and volume relevant to cell size?  
   
   
CELL MEMBRANE:  
What are cell membranes made of?   
 How are membranes arranged? (describe it)  
  
What is the cell membrane’s function?   
What do we call membranes that allow certain molecules pass through and keep others out?

NUCLEUS:  
What is the nucleus like? (describe composition)  
What structure surrounds the DNA and controls what enters and leaves the nucleus?   
What is the dark spot in the nucleus called?   
What is the job of the nucleolus?   
What do we call DNA that is TIGHTLY PACKED in DIVIDING CELLS?   
What do we call DNA that is SPREAD OUT in NON-DIVIDING CELLS?   
What is the function of the nucleus?

What is the gel-like material and organelles called inside the cell membrane?

MITOCHONDRIA:  
Looks like/Made of ?:   
What is the folded inner membrane called?   
What is the function of mitochondria?   
What molecules is burned for fuel in mitochondria?   
Mitochondria store the energy released from burning glucose as which molecule?

GOLGI BODIES:  
Made of:   
Looks like:   
What is the function of Golgi bodies?   
How do materials get to & from Golgi?   
What do centrioles look like?   
Centrioles are found ONLY in which kind of cells?   
What is the function of Centrioles?

RIBOSOMES:   
Looks like:   
Where are ribosomes found?   
What is the function of ribosomes?   
  
LYSOSOMES: (also called suicide sacs)  
What are lysosomes?   
FUNCTION:   
What is APOPTOSIS?

ENDOPLASMIC RETICULUM (ER)  
What is ER ?:

FUNCTIONS:  
 ROUGH -   
 SMOOTH -

CHLOROPLASTS:  
What are chloroplasts like?   
What are the membrane sacs inside chloroplasts called?   
What is the only kind of cells that have chloroplasts?   
FUNCTION:

VACUOLE:  
What are vacuoles like?

FUNCTION:

How large are vacuoles? (Plants, animals, bacteria)   
  
CELL WALL  
Where is the cell wall found?   
Which kind of cells have cell walls?   
How are the cell walls in Plant cells?   
 Plant cell walls contain…

What is the function of cell walls?

WHICH CELL PARTS HAVE A DOUBLE MEMBRANE AND THEIR OWN DNA?

WHAT ARE CELLS CALLED THAT HAVE NO NUCLEUS and NO ORGANELLES WITH MEMBRANES?

WHICH ARE CELLS CALLED THAT HAVE A NUCLEUS and ORGANELLES WITH MEMBRANES?   
WHICH KINDS OF CELLS ARE EUKARYOTES?   
WHICH KINDS OF CELLS ARE PROKARYOTES?   
  
BE ABLE TO COMPARE BACTERIA, PLANT, AND ANIMAL CELLS.  
 HOW ARE THEY ALIKE and DIFFERENT?

KNOW WHY THE SIZE A CELL CAN GROW TO IS LIMITED.