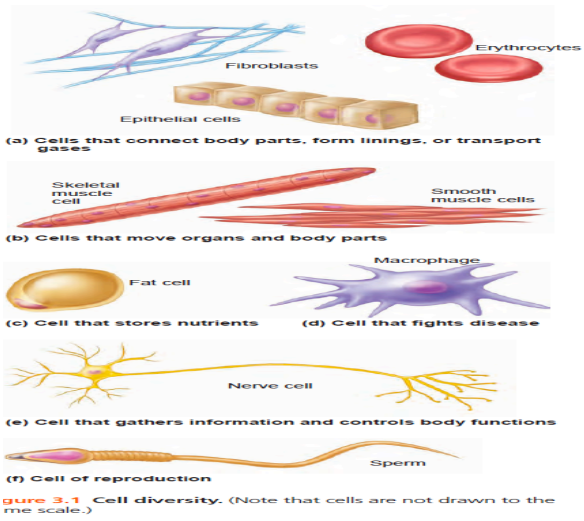
CHAPTER 3: CELLS- The Living Unit TEST date: _____

CELL Facts

1. _____

2. _____

3. _____



gure 3.1 Cell diversity. (Note that cells are not drawn to the me scale.)

All Human (**generalized or composite**) Cells are made up of 3 parts :

1.
2.
3.

CYTOPLASMIC ORGANELLES, PAGE 94, TABLE 3.3

Organelle	image	Description
1. mitochondria		
2. smooth er		
3. endoplasmic reticulum		
4. golgi apparatus		
5. lysosomes		
6. peroxisomes		
7. cytoskeleton		
8. centriole		
9. microtubule		
10. cilia/flagella		
11. microvilli		
12. ribosome		
13. nucleus		

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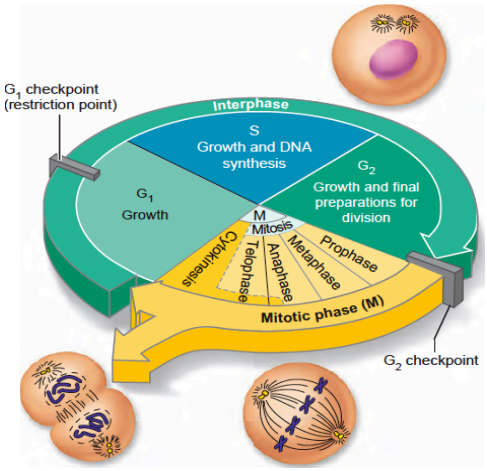
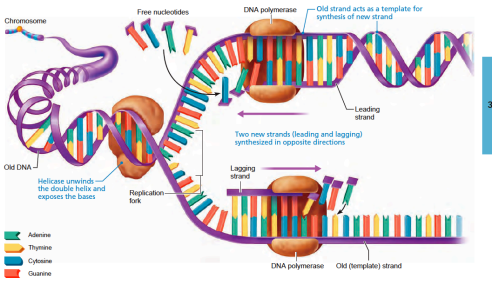
Page 96- The Cell Cycle

Cell Division occurs for _____ and _____; _____ is the time where DNA is forming for mitosis, then _____ where a _____ develops.





2 major periods: _____ and _____

_____: the 'resting period' from cell division; 3 subphases: G1, S and G2

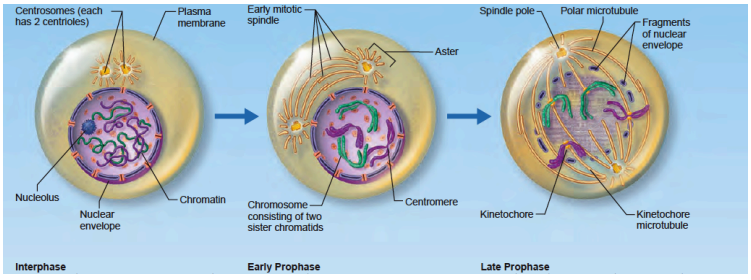
G1: _____

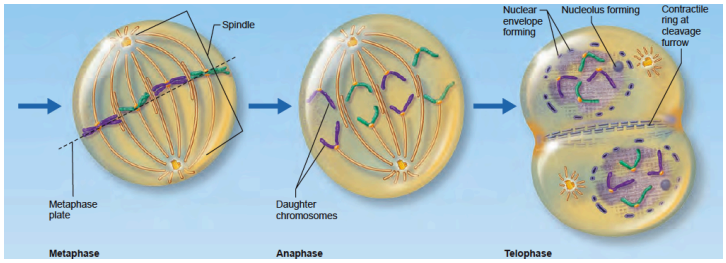
'S' PHASE during Interphase of the Cell Cycle, pg 97

Process:

1. DNA helicases _____
2. Each strand is a template to synthesize a _____
3. _____ adds complementary nitrogen bases to the lagging strand creating a process called _____ replication

CELL LIFE CYCLE pages 98-99 : series of changes a cell goes through from FORMING to being REPRODUCED.





CHAPTER 3: CELLS- The Living Unit TEST date: _____

PROTEIN SYNTHESIS: pp. 100-105 involves the use of 4 nucelotide bases _____ from DNA to nucleotide bases from RNA (A,U,C,G) into gene segments called _____ found on the genetic code on page 103, fig. 3.36

_____- are completed in 5 steps in the first phase of Protein Synthesis, _____→ _____

- ✓ Occurs in the _____

1. _____ RNA polymerase binds to the promoter (starting point)
2. _____: a complementary mRNA is formed
3. _____: mRNA is released by a special base called _____
4. Single stranded mRNA pulls off the DNA template
5. Transcription creates a _____

_____- 2nd phase of Protein Synthesis _____→ _____

- ✓ Occurs in the _____

1. Binds to a _____
2. Complementary tRNA is made with the mRNA as a _____
3. Translation creates an _____ which is converted to any one of the ___ amino acids.
4. Codon _____ a **'START'** position
5. Codon _____, _____, or _____ are **'STOP'** positions

OTHER ROLES OF DNA: causes protein synthesis from NOT WORKING. The 3 types are: Antisense RNA, microRNA and Riboswitches

DEVELOPMENTAL ASPECTS OF CELLS:

_____ Cells become specific tissues or organs. Depending on what organ system it is part of the anatomy is specific to it.

_____ known as programmed 'cell death' by allowing chemicals to enter the cell and it begins to destroy all parts causing the apoptotic cell to shrink. The dying cell releases a chemical lysophosphatidylcholine attracting macrophages which starts phagocytosis. Occurs in oxygen-starved cells, as if the body is experiencing a heart attack or stroke as a few examples.

_____ cells do not go through apoptosis.