

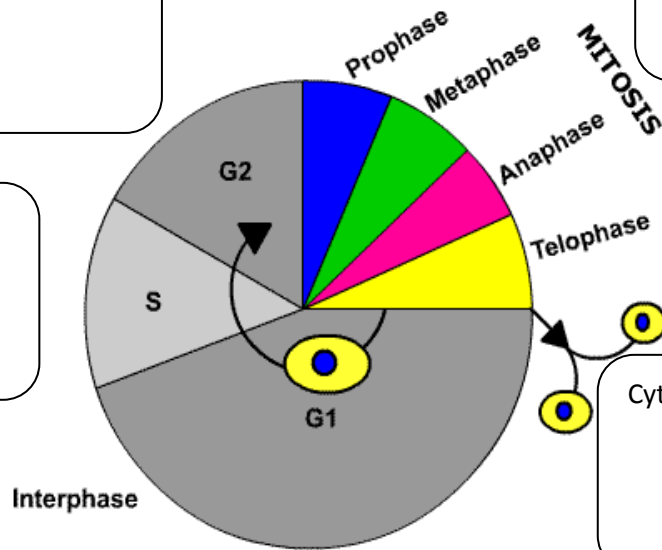
CELL CYCLE AND DNA REPLICATION Practice Worksheet

1. In the diagram below, describe what is happening at each phase.

G2 Phase:

S Phase:

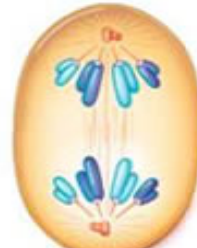
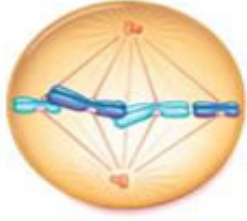
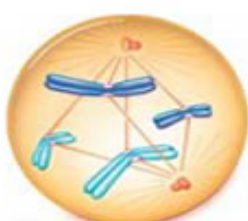
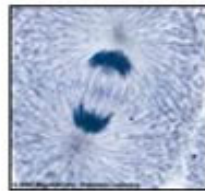
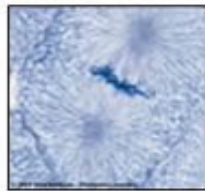
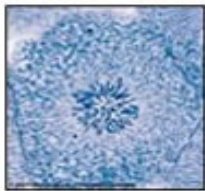
M Phase:



G1 Phase:

Cytokinesis:

2. Describe what occurs in each step of Mitosis. Use terms: chromosome, spindle fiber, nuclear envelope, nucleus, centrosome.



Prophase:

Metaphase:

Anaphase:

Telophase:

3. What divides in Mitosis?
4. What divides in Cytokinesis?
5. What happens when a cell can't stop dividing and continues to divide uncontrollably?
6. How is Mitosis different from Meiosis?

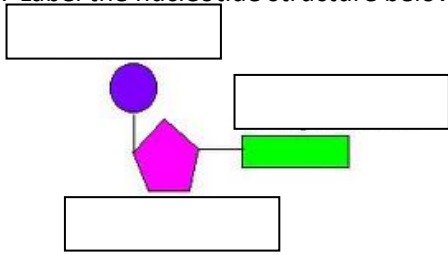
	Mitosis	Meiosis
# of divisions		
# daughter cells		
Genetic Make up		
Type of cell created		
Type of reproduction		
Examples		

7. Even though you and your siblings get your DNA from the same parents, why is it you are not identical to each other? Explain how the processes below help increase genetic diversity.

Crossing Over	
Segregation	
Independent Assortment	

8. What is DNA? What does it carry?
9. What are the monomers of DNA? Polymers?

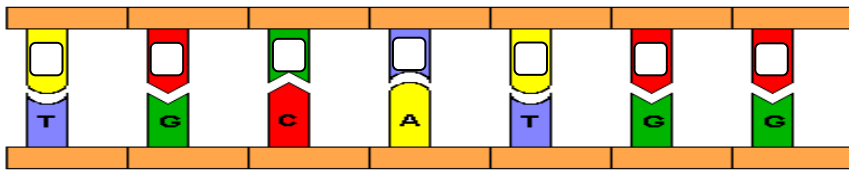
10. Label the nucleotide structure below.



11. What makes up the backbone/sides of DNA?

12. What makes up the steps/rungs of DNA?

13. In the unwound DNA form below, fill in the complementary base pairs.



14. Where do you get your DNA from?

15. When does DNA replication occur in the cell cycle?

16. The diagram below shows DNA replication. Describe what is happening at each step.

