Name:
Date:
DNA Replication
Directions: Please answer the following questions in complete sentence.
1. Why does DNA need to replicate?
2. Explain three main steps in the process of DNA replication. Name the enzymes that go with each step.
cuch step.
3. In which direction are new nucleotides added during replication?

4.	What is the difference between and leading and lagging strand?
5.	What do you think would happen if the process occurred incorrectly?
6.	In the two problems below, show the complimentary base pairing that would occur in the
	replication of the short DNA molecule below. Use two different colored pencils (or different pens, markers, etc.) to show which strands are the original and which are newly synthesized.

Original	Original	Original DNA	New DNA	Original DNA	New DNA
DNA	DNA	Strand 1	Strand	Strand 1	Strand
Strand 1	Strand 2				
A-	T				
T-	A				
C-	G				
A-	T				
A-	T				
G-	С				
C-	G				
T-	A				
G-	С				
G-	С				
T-	A				
C-	G				
A-	T				
T-	A				

Original	Original	Original DNA	New DNA	Original DNA	New DNA
DNA	DNA	Strand 1	Strand	Strand 1	Strand
Strand 1	Strand 2				
T-	A				
G-	С				
C-	G				
G-	С				
G-	С				
G-	С				
C-	G				
A-	T				
G-	С				
C-	G				
T-	A				
T-	A				
A-	T				
A-	T				