

Name _____ Date _____ Class _____

BASIC CONCEPTS 16 DNA REPLICATION

USE WITH CHAPTER 13, SECTION 13.1

Label what is happening

2 new identical DNA

free nucleotide bonds w/ original (helped by enzyme)

free nucleotide looking for match

enzyme is breaking H bonds to be copied

Use with Chapter 13

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Name _____ Date _____ Class _____

BASIC CONCEPTS 16 DNA REPLICATION

USE WITH CHAPTER 13, SECTION 13.1

1. What is the first step in the process of DNA replication?
unzip weak H bonds
2. How does each separated strand begin to rebuild a new strand?
enzymes attaches free nucleotides
3. What is the origin of each strand in the replicated DNA?
original strands
4. What kind of substance facilitates the bonding of nucleotides into a new DNA molecule?
free nucleotides enzymes
5. If the sequence of bases in one strand of DNA is C-A-A-G-T what is the sequence of bases on the matching strand?
G-T-T-C-A
6. What are vital processes of living things are made possible by DNA replication?
mitosis (identical) meiosis - unique making cells
7. Explain how DNA replication ensures continuity of form and function from one cell generation to the next.
one side always stays in tact

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BASIC CONCEPTS 17 DNA TRANSCRIPTION

USE WITH CHAPTER 13, SECTION 13.2

Label

A what is happening

B what is happening

C what is happening

D what is happening

Use with Chapter 13

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Name _____ Date _____ Class _____

BASIC CONCEPTS 17 DNA TRANSCRIPTION

USE WITH CHAPTER 13, SECTION 13.2

1. How many strands of RNA are transcribed from the two "antiparallel" strands of DNA?
2. What are the three parts of an RNA nucleotide?
3. How do the nitrogen bases of RNA and DNA differ?
4. What is the function of mRNA?
5. What is a codon?
6. If a sequence of codons on a DNA strand is AAC TAG GGT, what is the corresponding sequence in a strand of mRNA?
7. Describe what occurs after the process of base pairing is completed.
8. Describe what occurs when a molecule of DNA "unzips."

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