

Do Now: Describe the structure of DNA

Use depth of information

WRITE 3-5 Sentences

Support with a picture for clarity

Do Now: Describe the structure of DNA

Nucleotides

Phosphate

Sugar

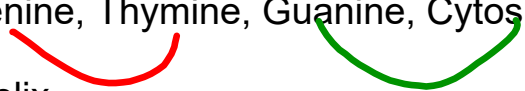
Nitrogenous Bases

Adenine, Thymine, Guanine, Cytosine

Double Helix

Antiparallel

Pairing Rules: A=T, G=C





DNA Replication



The process of
Copying DNA
inside a cell's nucleus



Name of Enzyme							
Description of Structure							
Function							

Enzyme	Helicase 	SSB (Single Strand Binding)	Primase	DNA Polymerase 	Sliding Clamp	Rnase H	Ligase
Structure		Tetrad (4 parts)					
Function			Makes RNA Primers			Removes RNA Primers	

Important Steps in DNA Replication

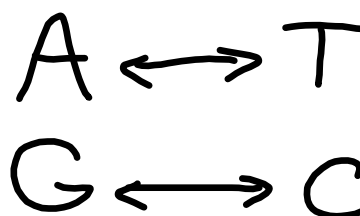
- 1) Unzip DNA *Helicase*
- 2) Read the Template strand
- 3) Bind Complimentary Nucleotides using enzymes
- 4) Create TWO identical strands of DNA

*DNA
Polymerase*



each new DNA molecule has one new strand and one old strand

A-T-T-G-C-A-C-C



Critical Thinking : _____ Did you get it?

What is the result after DNA replication?

When would cells need to replicate DNA?

What would happen if cells did not replicate their DNA?

Describe the process of DNA replication in a paragraph (5-10 sentences)

Assume you are writing to explain this to a student in Middle School. Refer to the diagram that is provided to you below right in your paragraph.

