

DNA Web-quest

Use the websites provided on the "DNA Web-quest" page of my website to answer the questions below about the structure and function of nucleic acids in our cells.

DNA: The Double Helix (from Nobel Prize):

http://www.nobelprize.org/educational/medicine/dna_double_helix/dnahelix.html

1. What is the full name of DNA?
2. What is the shape of DNA?
3. What are the "rungs" of the ladder?
4. Which nitrogenous bases pair together?
5. Play the game for all three organisms. Record your answers after completing each organism in the chart below.

Chromosome #	How many chromosomes?	How many base pairs?	How many genes?	What is the organism?
1				
2				
3				

DNA Replication Simulation:

<http://www.johnkyrk.com/DNAreplication.html>

6. DNA must be replicated prior to _____.
7. Errors during DNA replication are called _____.
8. Does DNA replication start at only one place in the DNA or in many places at once?
9. In the chart below, describe what each enzyme does during the replication process.

Name of Enzyme:	Function during DNA replication:
Helicase	
RNA primase	
DNA polymerase	
Exonuclease	
Ligase	

10. The two types of cell division are _____ and _____.