

Name _____ Date _____ Period _____

Chapter 8 Concept Review

BIOLOGY

Directions: Answer the following questions using your notes and textbook

- _____ experimented with the bacteria that cause pneumonia.
- S form or bacteria killed with _____ mice unaffected
- Griffith concluded that a transforming material passed from _____ S bacteria to _____ R bacteria, making them deadly.
- Avery identifies _____ as the transforming principle
- Added enzymes to break down DNA- transformation _____ to occur.
Concluded _____ was transforming factor
- Hershey and Chase confirm that DNA is the _____ material
- Studied viruses that infect bacteria (_____)
- Concluded phages _____ had entered bacteria but _____ had not. Genetic material must be DNA
- DNA is composed of four types of _____
- DNA is long polymer composed of _____ called nucleotides.
- Each _____ has three parts
 - _____ group
 - Ring-shaped sugar called _____
 - _____ -containing base
- In 1950 Erwin Chargaff changed thinking by analyzing DNA of several different organisms. Found amount of adenine equals thymine and amount of cytosine equals amount of guanine.
_____ = _____ and _____ = _____ (called _____ rules)
- Rosalind Franklin and Maurice Wilkins used _____ - _____ crystallography and suggested DNA _____ shape
- In 1953 _____ and _____ published their DNA model in a paper in the journal Nature
- _____ always pair in the same way

16. _____ rules- A with T and C with G
17. _____ creates exact copies of itself during the cell cycle
18. Replication is _____ and _____
19. _____ converts DNA message into intermediate molecule, called RNA
20. _____ interprets an RNA message into string of amino acids, called polypeptide (protein)
21. Replication and Transcription in _____. Translation occurs in _____
22. RNA differs from DNA in _____ significant ways
 - a. _____ in RNA is ribose not deoxyribose
 - b. RNA has the base _____ in place of thymine
 - c. RNA is _____ stranded not double
23. Using one strand of DNA, _____ strand of RNA is produced
24. Amino acids are coded by _____ base sequences
25. Translation converts mRNA messages into _____
26. A _____ is a sequence of three nucleotides that codes for an amino acid.
27. Amino acids are linked to become a _____
28. _____ - site of protein synthesis
29. _____ - a change in an organism's DNA
30. Mutations that affect a single gene usually happen during _____
31. Mutations that affect group of genes or chromosome happen during _____
32. Mutations may or may not affect _____
33. Chromosomal _____ affect many genes and have big affect on organism
34. Mutations in body cells do not affect _____.
35. Mutations in _____ cells can be harmful or beneficial to offspring.