Name Period Date

SECTION 8.1

IDENTIFYING DNA AS THE GENETIC MATERIAL

Power Notes

Griffith's experiments:

Conclusion:

Avery's experiments:

-
-
-

Conclusion:

Hershey and Chase's experiments:

-
-

Conclusion:

Name Period Date

SECTION 8.2

STRUCTURE OF DNA

Power Notes

Parts of a DNA molecule

Overall shape:

Nitrogen-containing bases

Backbone

Pyrimidines

Purines

1.

2.

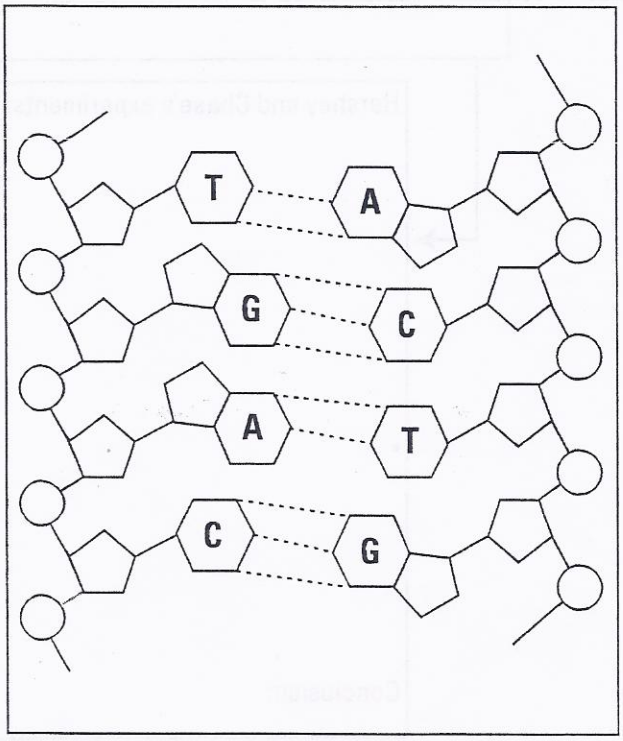
Base pairing rules:

Bonding

1.

2.

Chargaff's rules:



Name Period Date

SECTION 8.3 | DNA REPLICATION

Power Notes

General description:

Process

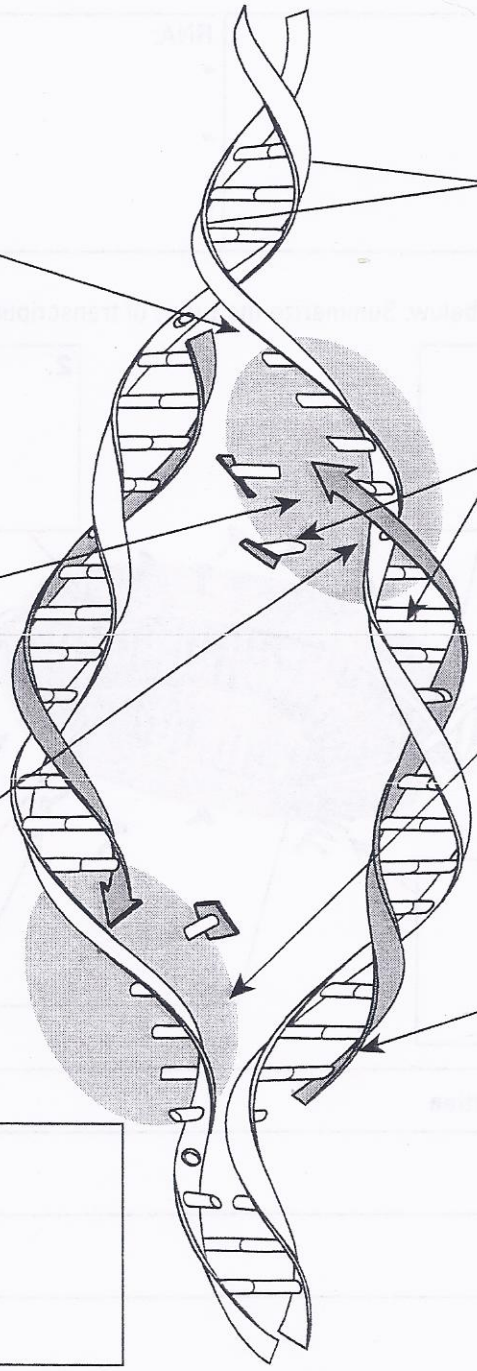
1.

2.

3.

End result

4.



Identify the structures.

1.

2.

3.

4.

Name Period Date

SECTION 8.4 | TRANSCRIPTION

Power Notes

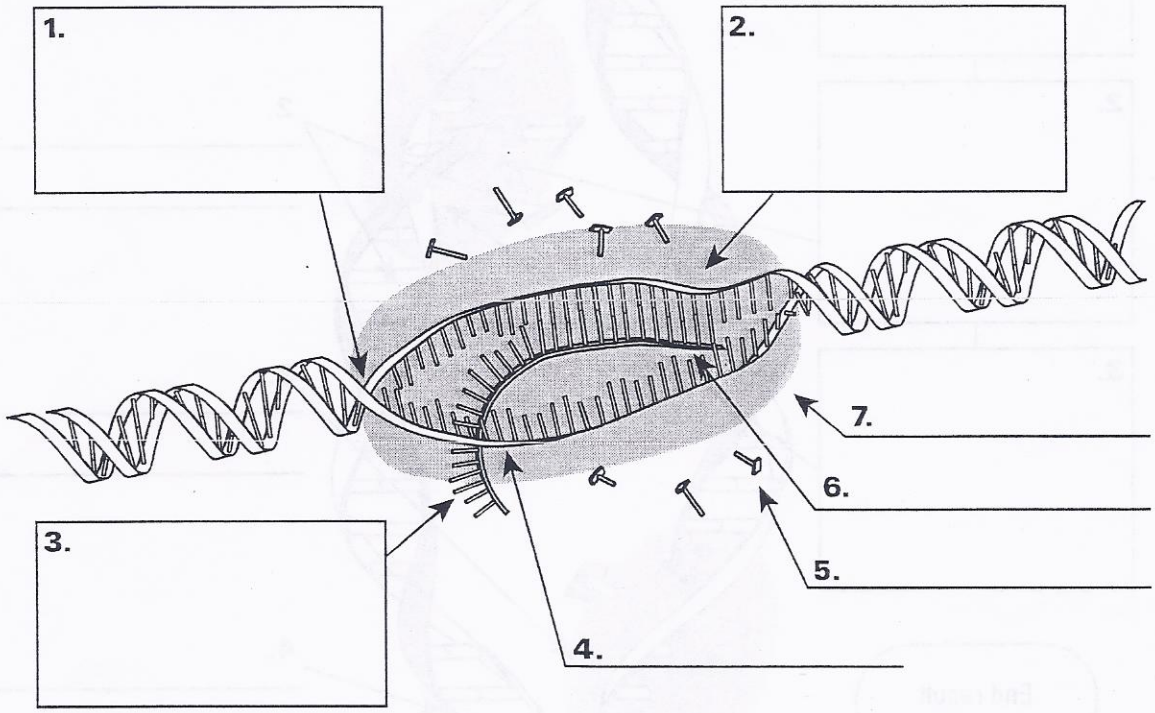
Central Dogma

1. DNA	2. →	3.	4. →	5.

DNA:	RNA:
•	•
•	•
•	•

Transcription

Label the parts on the lines below. Summarize the steps of transcription in the boxes.



RNA Type	Function
1. Messenger RNA (mRNA)	
2.	
3.	

Name Period Date

SECTION 8.5

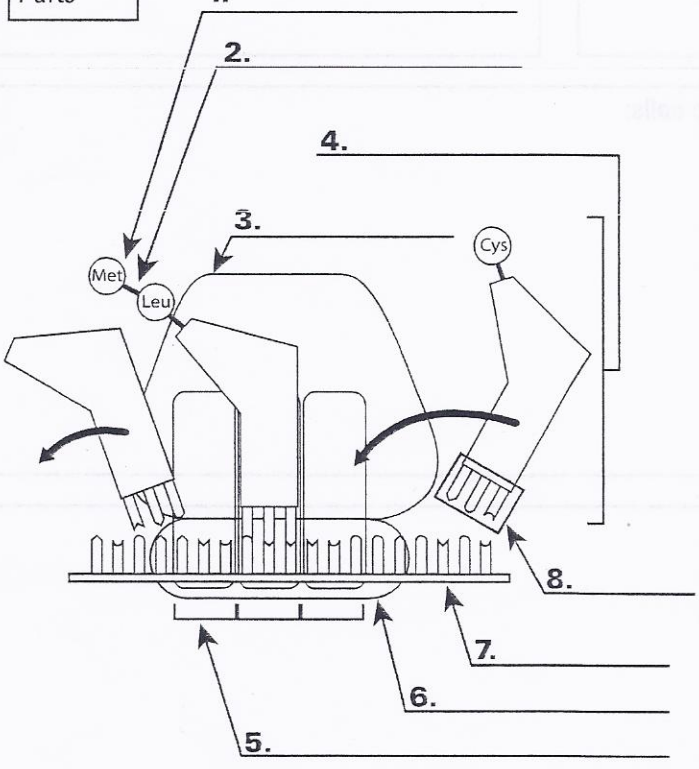
TRANSLATION

Power Notes

Reading frame:	**Triplet Code**	Common language:
	Codon	
Start codon:		Stop codon:
Ribosome • •	Anticodon	Transfer RNA (tRNA)

Translation

Parts



Process

1.

2.

3.

Name Period Date

SECTION 8.6

GENE EXPRESSION AND REGULATION

Power Notes

Promoter:

Operon:

lac operon:

Without lactose:

With lactose:

Controlling transcription in eukaryotic cells:

mRNA processing:

-
-
-

Name Period Date

SECTION 8.7 | MUTATIONS

Power Notes

Gene Mutations:

•

•

Chromosomal Mutations:

•

•

Mutations

Potential impact:

Silent:

Mutagens: