

Name _____

Date _____

DAY 3: Read the section and complete the reading guide

Section 12.3 DNA, RNA, and Protein

Main Idea _____

Details _____

Scan the headings and boldfaced words for the section. Predict two things that you think might be discussed.

1. _____

2. _____

Review Vocabulary

synthesis

Use your book or dictionary to define synthesis.

New Vocabulary

Write the correct term in the left column for each definition below.

process in which RNA is synthesized from DNA

a group of three nitrogenous bases in DNA or mRNA that code for one amino acid

nucleic acid made of ribose, phosphate, and one of four nitrogenous bases—adenine, cytosine, guanine, or uracil

intervening DNA sequences that are transcribed and then removed from the final mRNA

process by which mRNA directs the synthesis of a protein

long strands of RNA that are complementary to one strand of DNA

protein coding sequences in DNA that are transcribed into mRNA and translated into protein

small RNA molecules that transport amino acids to the ribosome

an enzyme that catalyzes the synthesis of mRNA using DNA as a template

RNA molecules that make up part of the ribosome

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Section 12.3 DNA, RNA, and Protein (continued)

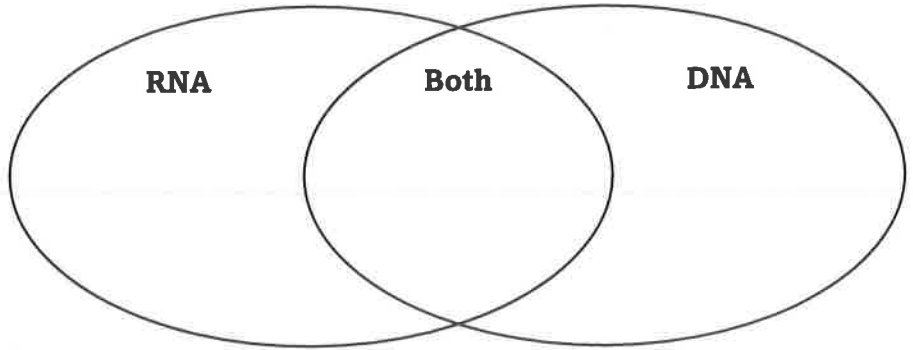
Main Idea _____

Details _____

Central Dogma

I found this information on page _____.

Compare and contrast RNA and DNA by writing at least five characteristics of their structure and composition in the Venn diagram.



State the central dogma of biology.



Compare the function of each type of RNA molecule by completing the table.

Type of RNA	Function
mRNA	
rRNA	
tRNA	

Sequence the steps in transcription of RNA.

Section 12.3 DNA, RNA, and Protein (continued)

Main Idea

**The Code,
One Gene—
One Enzyme**

*I found this information
on page _____.*

Details

Identify *four examples of codons and state the instructions they encode.*

1. _____
2. _____
3. _____
4. _____

Model *the movement of tRNA molecules showing the translation process.*

State *the updated version of Beadle and Tatum's hypothesis.*

_____ codes for _____.

SUMMARIZE

Create a flow chart to describe the formation of a protein.
Describe the activities of DNA and the three types of RNA.