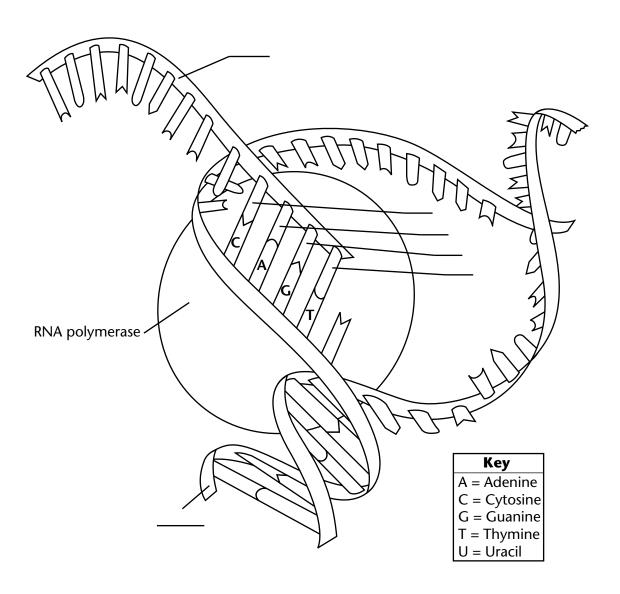
Name	Class	Date
Name	C1035	Date

## **Transcription**

In transcription, RNA polymerase splits the two halves of a strand of DNA. RNA then uses one half as a template to make a copy of the other half. RNA contains the nucleotide uracil instead of the nucleotide thymine.

Label the DNA and RNA. Then, label the missing nucleotides marked on the diagram.



Use the diagram to answer the question. Circle the correct answer.

1. In RNA, which nucleotide is always paired with uracil?

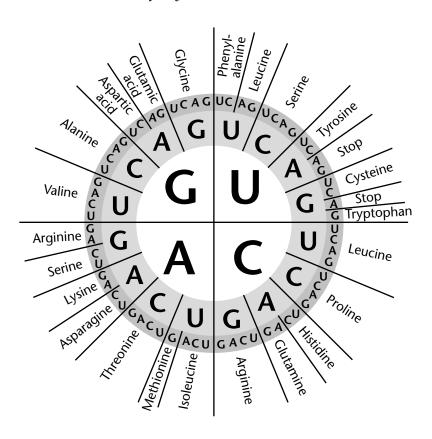
adenine guanine

plication and Transce process by which a cell th strands of the double aplementary, or matching the process by which a set of generate a strand of mation. One row has been	l copies its DNA. he helix are used and helix are used and helix are used and helix are used and helix are the helix are used as the helix are used as the helix are used as the helix are the helix are the helix are the helix are used as the helix are the
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Complementary DNA	
	Messenger RNA (mRNA)
AATGC	AAUGC
GGCGG	
	ACGUAGC
GATAAGA	
	CUGGCUAC
	GGCGG

## **Decoding mRNA**

The diagram shows the mRNA codes that correspond to amino acids and stop codons. Read the diagram from the center outwards. For example, the mRNA code UAC corresponds to the amino acid tyrosine.

Write the name of the amino acid that corresponds to each mRNA code. The first one has been done for you.



mRNA Code	Amino Acid
AAA	lysine
GCG	
GAU	
CAA	

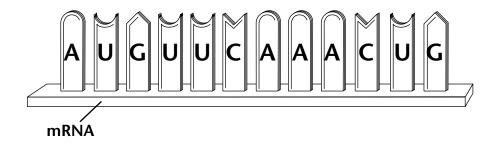
Use the diagram to answer the questions.

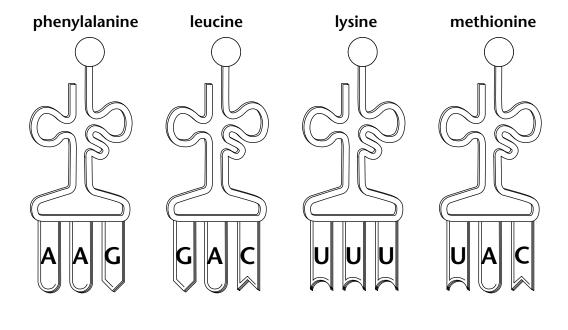
- 1. Which two mRNA codes correspond to histidine?
- 2. How many different mRNA codes correspond to arginine?

## **Translation**

During translation, transfer RNA (tRNA) anticodons match to messenger RNA (mRNA) codons. Each tRNA molecule can carry one particular amino acid. The amino acids are joined to form a polypeptide.

Number the four tRNA anticodons in the order in which they should appear to match the codons in the mRNA strand.





Use the diagrams to answer the question.

**1.** List the amino acids in the order they would appear in the polypeptide coded for by the mRNA.