

RNA and Gene Expression Name: _____

Read the Interactive Reader on Classroom and answer the questions on this paper. Due next class.

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Looking Closer

1. Identify: What are the two main steps in gene expression?
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Critical Thinking

2. Apply Concepts: What is the complementary RNA sequence for this DNA base sequence?

DNA Strand GCCATATTG

RNA Strand _____

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Looking Closer

3. Identify What type of RNA is produced during transcription?
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Looking Closer

4. Summarize: What happens during transcription?
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Reading Check

5. Define: What is a codon?
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Looking Closer

6. Identify: Which amino acid does the codon ACU code for?
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7. Identify: Give two examples of a stop codon.
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Reading Check

8. Describe: What is the end result of translation?
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Reading Check

9. Explain: Does a particular trait result from the expression of a single gene?
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Looking Closer

10. Explain: The first amino acid in most polypeptides is methionine. What is the reason for this?

11. Describe: What causes translation to end?

12. Identify: Where is the rRNA in the figure?

13. Explain: How can the same mRNA strand be used to produce more than one polypeptide at the same time?

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1. Define: Write a definition of gene expression in your own words. _____

2. Describe: What role does tRNA play in gene expression?

3. Apply Concepts: Fill in the chart below show how a DNA base sequence is converted into a sequence of amino acids.