MIT Transcription Class Notes

Name _____

Date _____

Class _____

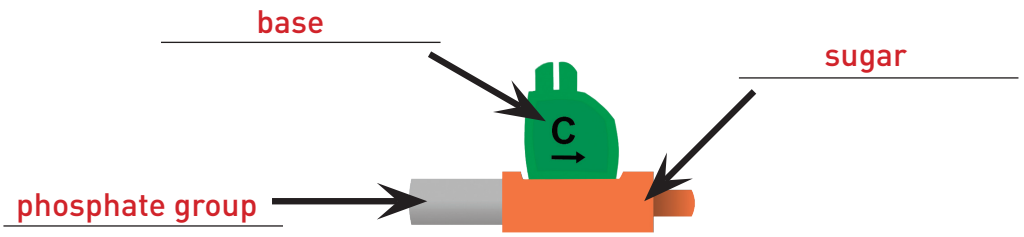
To be completed in class using DNA/RNA Booklet 1 (pages 21-25).

In transcription, mRNA is produced. The mRNA molecule is a copy of one side of the DNA.

1. Where does the process of transcription take place in the cell? in the nucleus

2. What are the subunits of mRNA called? nucleotides (or RNA nucleotides)

3. Below is an RNA nucleotide. Label the 3 parts.

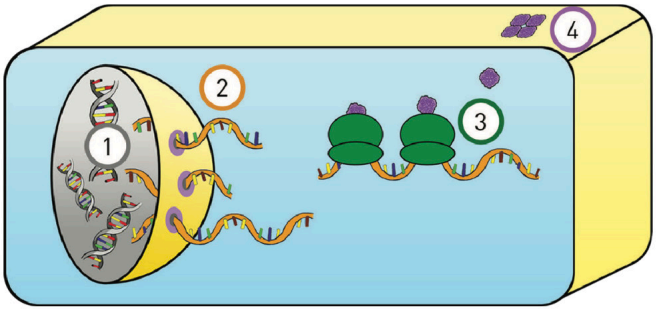


4. Which one of the above parts is different in RNA compared to DNA? the sugar is different (ribose instead of deoxyribose)

This diagram shows a cell.

5. DNA is kept inside which cell part?

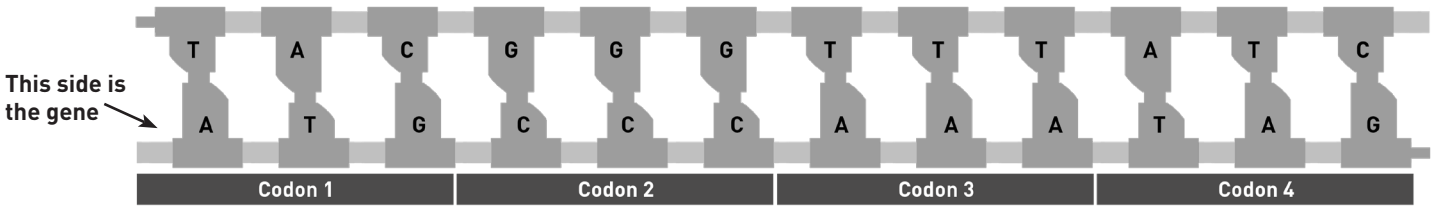
the nucleus



6. Which molecule (labeled #2) is leaving the nucleus in this diagram?

an mRNA molecule (is leaving through a nuclear pore)

7. Below is a short gene (DNA molecule). The gene (coding strand) is on the bottom.
Remember the rule: the mRNA has the same sequence as the gene (except RNA uses U instead of T).



A U G C C C A A A U A G

Write the letters for the mRNA created from this gene on the lines above.