

Homework- Key area 1.3 DNA and Proteins

1. DNA is found in which part of the cell?

- a. Cytoplasm
- b. Ribosomes
- c. Nucleus
- d. Cell membrane

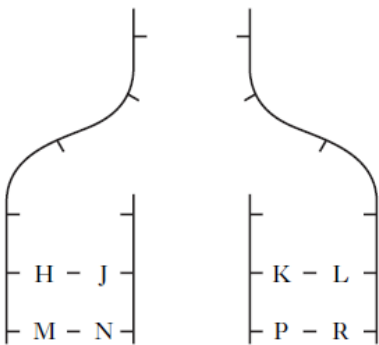
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2. The DNA base, (A) adenine, pairs with what other base?

- a. (A) Adenine
- b. (T) Thymine
- c. (C) Cytosine
- d. (G) Guanine

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3. The diagram shows DNA during replication. Base H represents thymine (T) and base M represents guanine (G). Which letters represent the base cytosine (C)?



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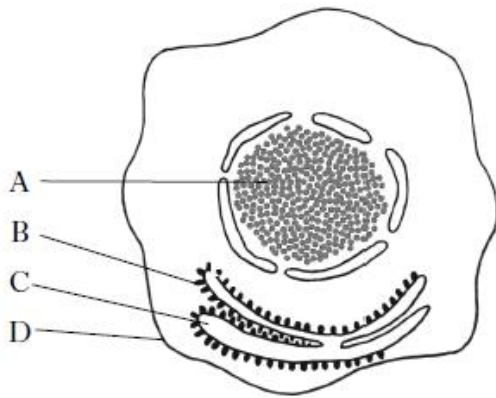
- a. J and K
- b. J and L
- c. N and P
- d. N and R

4. A DNA molecule consists of 4000 nucleotides of which 20% contain the base adenine (A). How many of the nucleotides in this DNA molecule will contain guanine (G)?

- a. 800
- b. 1000
- c. 1200
- d. 1600

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5. The diagram below shows parts of an animal cell.



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Where does synthesis of mRNA take place?

6. The sentence below describes the function of DNA.

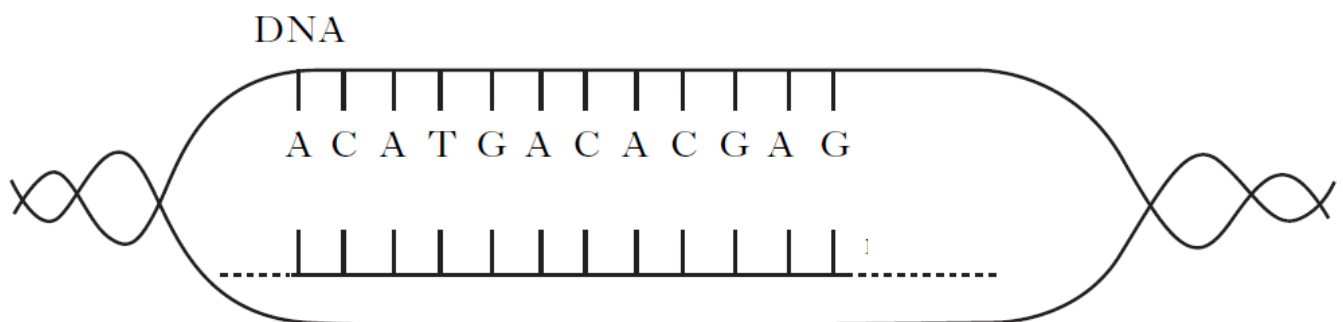
Rewrite the sentence underlining **one** option in each set of brackets to make the following sentence correct.

The { number / order } of DNA { bases / genes } in a chromosome encodes information

for the structure of a { carbohydrate / protein }.

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7. The diagram below shows the beginning of protein synthesis



a) Give the complimentary strand to the DNA strand shown

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a) From the diagram above, name the molecule being produced from DNA

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b) Where does the mRNA go when it leaves the nucleus?

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