1. In the nucleus

2. $\text{tRNA} \rightarrow m\text{RNA} \rightarrow m\text{DNA}$
   \[\uparrow\text{transfer}\]  \[\text{messenger}\]  \[\text{mitochondrial}\]

3. The sequence of codons (the amino acid order for the synthesis of the proteins) in mRNA which specifies the genetic code.

4. A change in the DNA base sequence that alters the formation of a protein in a cell.
Quiz

1. #8
2. #13

Tues amino acids
Deoxribose - missing OH group found in RNA.
DNA
adenine (A)  guanine (G)
cytosine (C)  thymine (T)

RNA
adenine (A)  guanine (G)
cytosine (C)  uracil (U)
17. 1B
   a.) pyrimidine  cytosine
   b.) purine      adenine
   c.) purine      guanine
   d.) pyrimidine  thymine
17.1C

1. RNA adenosine 5’-mono ....
2. DNA dcmp
3. DNA dTMP
4. DNA dGMP
5. RNA guanosine 5’-mono ....
6. RNA cytidine 5’-momo ...
7. RNA UMP
dAMP
8. DNA deoxyadenosine 5’
ribose
RNA Anodeosin
RNA

Guanosine

Guanine
RNA

Uridine
helix forms
3' → 5'
5' → 3'
base pair
base pair
Three types of RNA

ribosomal RNA rRNA make up the proteins

messenger RNA mRNA mRNA carries information from DNA to rRNA

transfer RNA tRNA places correct amino acids in the protein
- transcription: DNA to mRNA
- U is paired with A in mRNA
- The production of mRNA is triggered when certain proteins are needed in the cell.
CAATTCCGGA
GUAAAGCCAU
Codons - the genetic code that specifies the order for the amino acids in proteins.
-CCC- TCA- GGG- CGC-
  GGG AGU CCC GCG
Gly Ser Pro Ala