

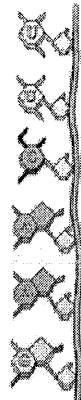
Objectives - Students will:

- Identify RNA and the three types
- Identify the locations and functions of the 3 types of RNA
- Compare three differences between DNA and RNA
- Summarize the two stages of protein synthesis
- Identify the mRNA codons for a DNA strand

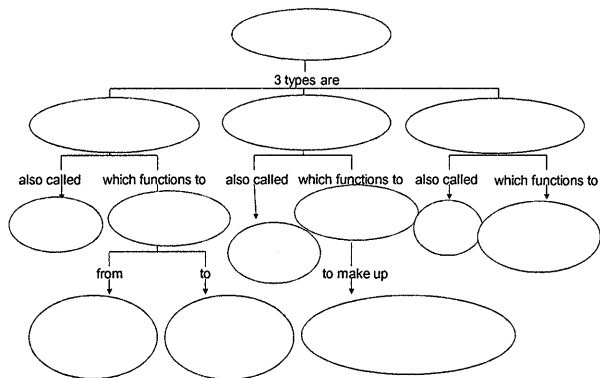
Obj. A) Identify RNA and the three types

What is RNA?

- _____ Molecule –
made of _____
- _____
- Types =



Obj. B) Identify the locations and functions of the 3 types of RNA



Obj. C) Compare three differences between DNA and RNA



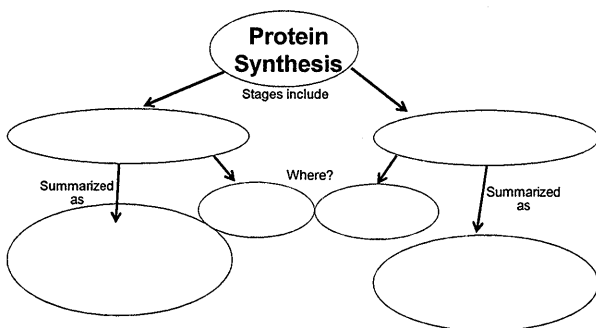
DNA

RNA



- _____ 1. _____
- _____ 2. _____
- _____ 3. _____
- _____ 4. _____

Obj. D) Summarize the two stages of protein synthesis



Obj. D) Summarize the two stages of protein synthesis

Stage 1 :Transcription:

- _____ is
produced from DNA
- In _____
- Steps:
 - DNA _____
 - DNA _____
 - _____ codons
line up
 - Codon = 3 _____
 - _____



Obj. E) Identify the mRNA codons for a DNA strand

DNA Codons
GGATCAAGC

Remember
mRNA has:

- Uracil instead of thymine
- GCAU

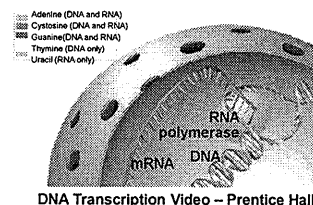
mRNA

How many codons are present in the mRNA strand?

Obj. D) Summarize the two stages of protein synthesis

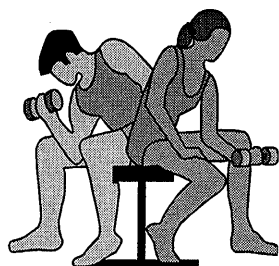
Answer the following questions while watching the video.

1. What molecule provides instructions to make proteins?
2. What type of RNA receives a copy of these instructions?
3. What base replaces thymine in RNA?
4. Identify the mRNA bases for the following DNA bases:
TACCAACCT



Obj. D) Summarize the two stages of protein synthesis

Stage 2 = Translation =



- Conversion of the _____
(_____)
- Into a _____
- By the _____

Obj. D) Summarize the two stages of protein synthesis

Translation

1. _____ arrives at the _____ –
* _____ is the start codon
 2. tRNA picks up an _____
 3. _____ delivers the _____ to the ribosome
-

Obj. D) Summarize the two stages of protein synthesis

Translation Completed -

1. tRNA delivers _____
 2. Ribosome joins _____
 3. _____ bond forms
 4. _____ leaves
 5. _____ Chain grows = _____
-
- Completing the Polypeptide
Stops at _____ codon
_____ STOP codons exist

Understanding Check

- 1. What are the three types of RNA?
- 2. Identify the complementary bases for each:

DNA	T	A	C	G	G	C	A	T	A	C	A	G
mRNA												
tRNA												

- 3. When the anticodon for tRNA arrives at the ribosome, what does tRNA deliver?