Amoeba Sisters Video Recap: DNA vs. RNA and Protein Synthesis

Whose Show Is This?

Directions: DNA shouldn't get all the credit! For this page, you will need to watch the video clip "Why RNA is Just as Cool as DNA."

Label the two cartoons below. For the following comments, write a "D" inside the speech bubble if for DNA, "R" inside the speech bubble if for RNA, or "BOTH" if the statement applies to both.

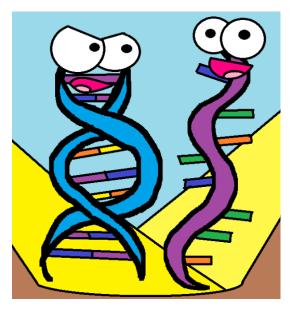
- 1. I am single stranded.
- 2. I am found only in the nucleus of eukaryote cells (exception during mitosis when nucleus is temporarily disassembled).
- 3. I am a nucleic acid.

4. I am arranged as a double helix or "twisted ladder."

5. I have the sugar ribose.

6. I have the sugar deoxyribose.

- 7. I include the bases Guanine, Cytosine, and Adenine.
- 9. I have the base Thymine.



- 8. In eukaryote cells, I travel out of the nucleus to a ribosome.
- 10. I have the base Uracil.

There are 3 types of RNA. Fill in any missing information in the chart below:

Type: mRNA	11. Type:	12. Type:
13. Stands for:	Stands for: Transfer RNA	14. Stands for:
	transfers message.	



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Protein Synthesis Summary

Directions: Fill in any missing information in the summary chart below after watching "Protein Synthesis and the Lean, Mean Ribosome Machines."

Name of Process:	Where is this process located	Is DNA directly	Which types of	End Result and Purpose
	(assuming eukaryote cell)?	involved in process?	RNA are involved?	
Transcription DNA Matches With corresponding RNA bases DNA MRNA DNA	15.	16.	mRNA	17.
Translation Appropriate "AUG" Landing Site Spotted!	18.	No, as DNA remains in the nucleus and this process is not in the nucleus.	19.	20.

