

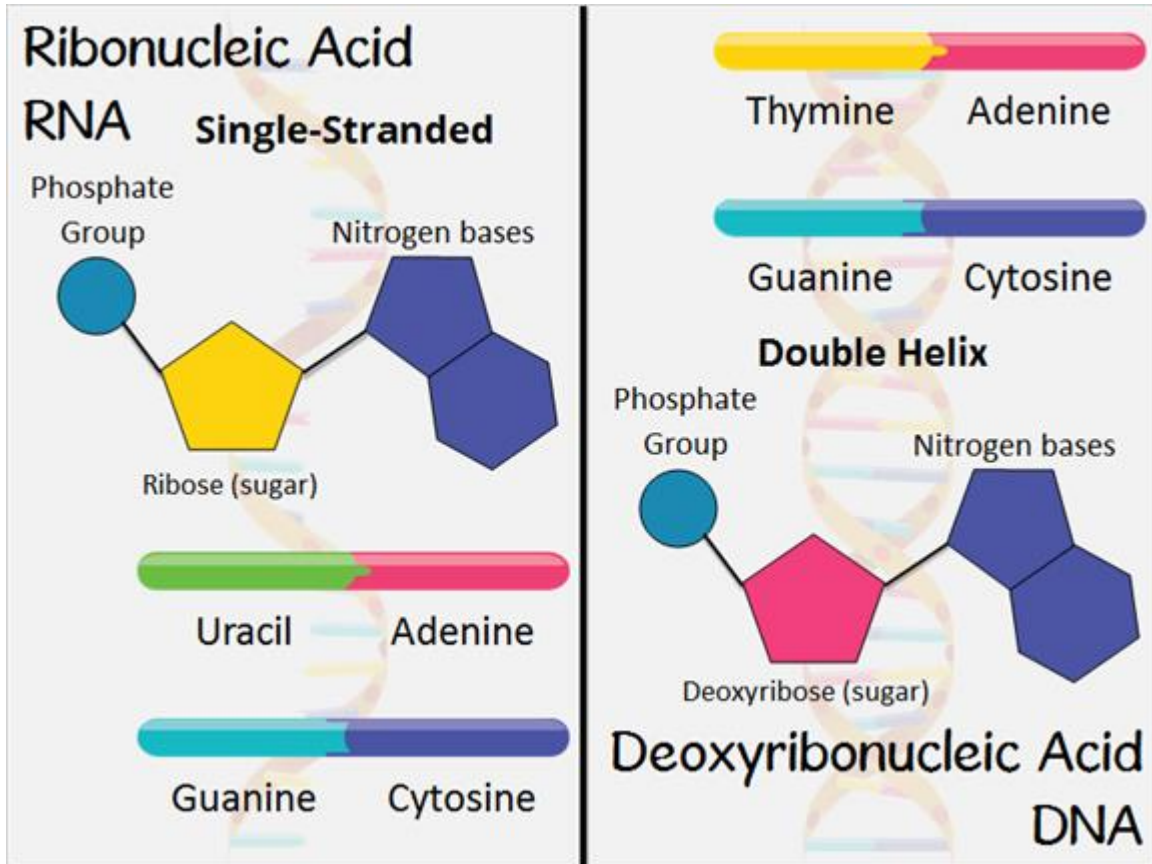
Module 6: DNA, RNA, and Molecular Genetics  
Topic 3 Content: Ribonucleic Acid Notes



Ribonucleic Acid

Click *NEXT* to begin.

**Module 6: DNA, RNA, and Molecular Genetics**  
**Topic 3 Content: Ribonucleic Acid Notes**

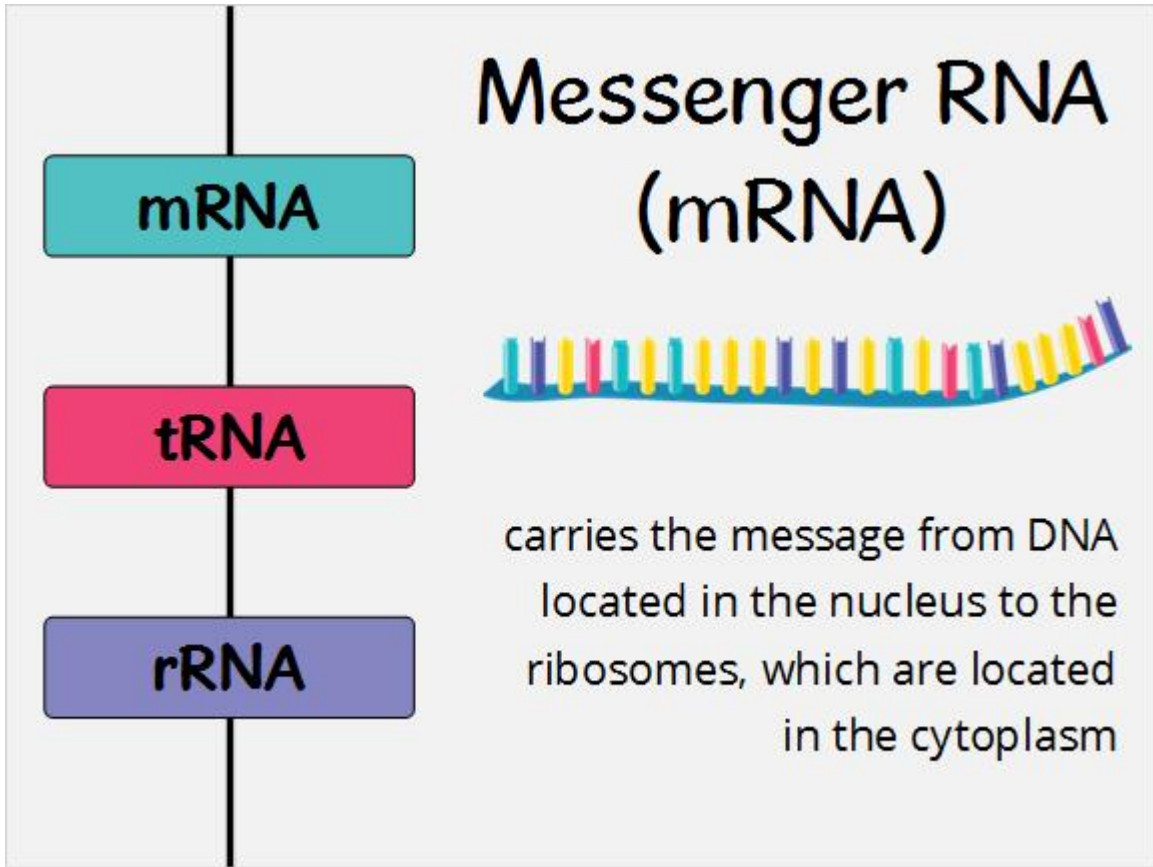


Ribonucleic acid, or RNA, is a nucleic acid similar to DNA. RNA is a chain of nucleotides, which each contain a sugar, a phosphate group, and a nitrogen base. However, RNA is different from DNA in some very important ways. First, the sugar in RNA is ribose instead of deoxyribose. Second, RNA is a single-stranded molecule whereas DNA is a double-helix. And lastly, instead of the base thymine, RNA contains the base uracil. In RNA, adenine is paired with uracil.

The graphic features a vertical line on the left side with three colored rectangular tabs: a teal tab at the top labeled 'mRNA', a pink tab in the middle labeled 'tRNA', and a purple tab at the bottom labeled 'rRNA'. To the right of the tabs, the title 'Types of RNA' is written in a large, bold, black font. Below the title, there is a smaller black font instruction: 'Click each label to learn about the different types of RNA and their functions.'

There are three major types of RNA found in the cells of eukaryotic organisms. Each type of RNA plays a role in protein synthesis. Click each tab to learn about the different types of RNA and their functions.

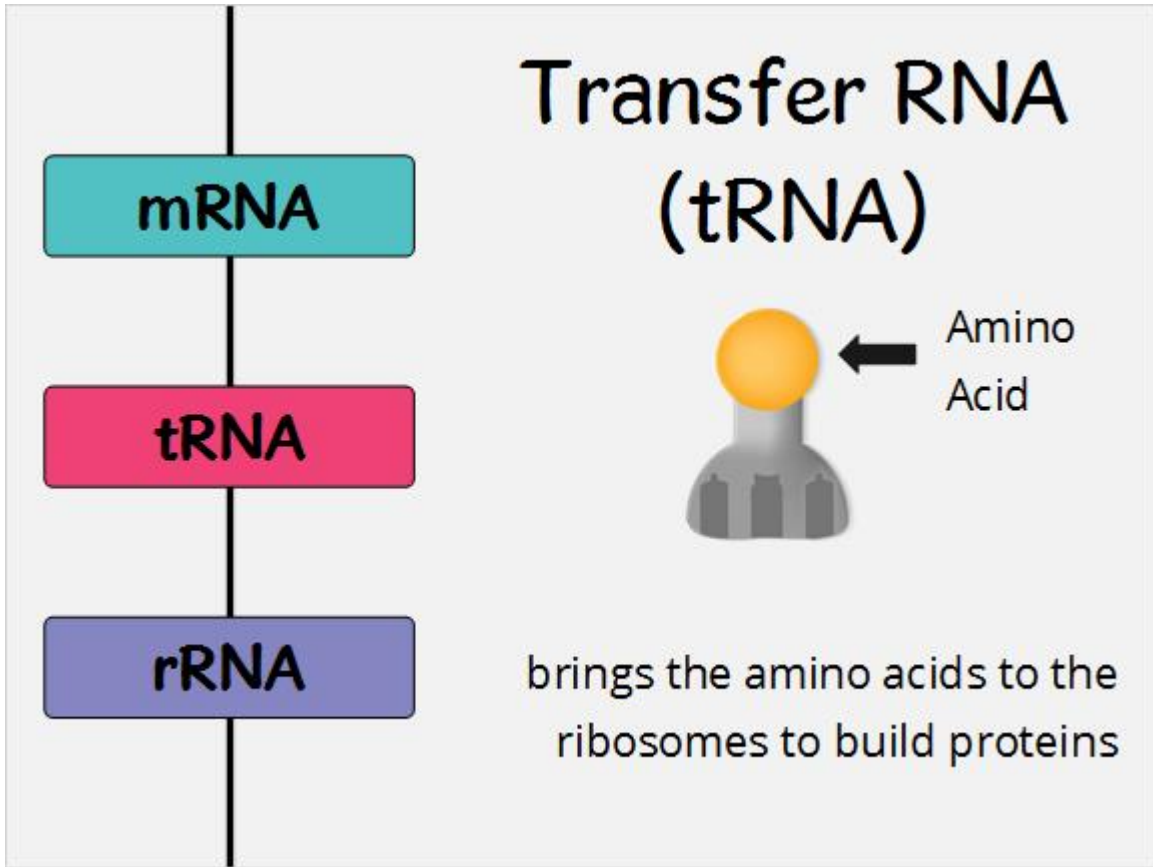
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**mRNA**

Messenger RNA, or mRNA, carries the message from DNA located in the nucleus to the ribosomes, which are located in the cytoplasm.

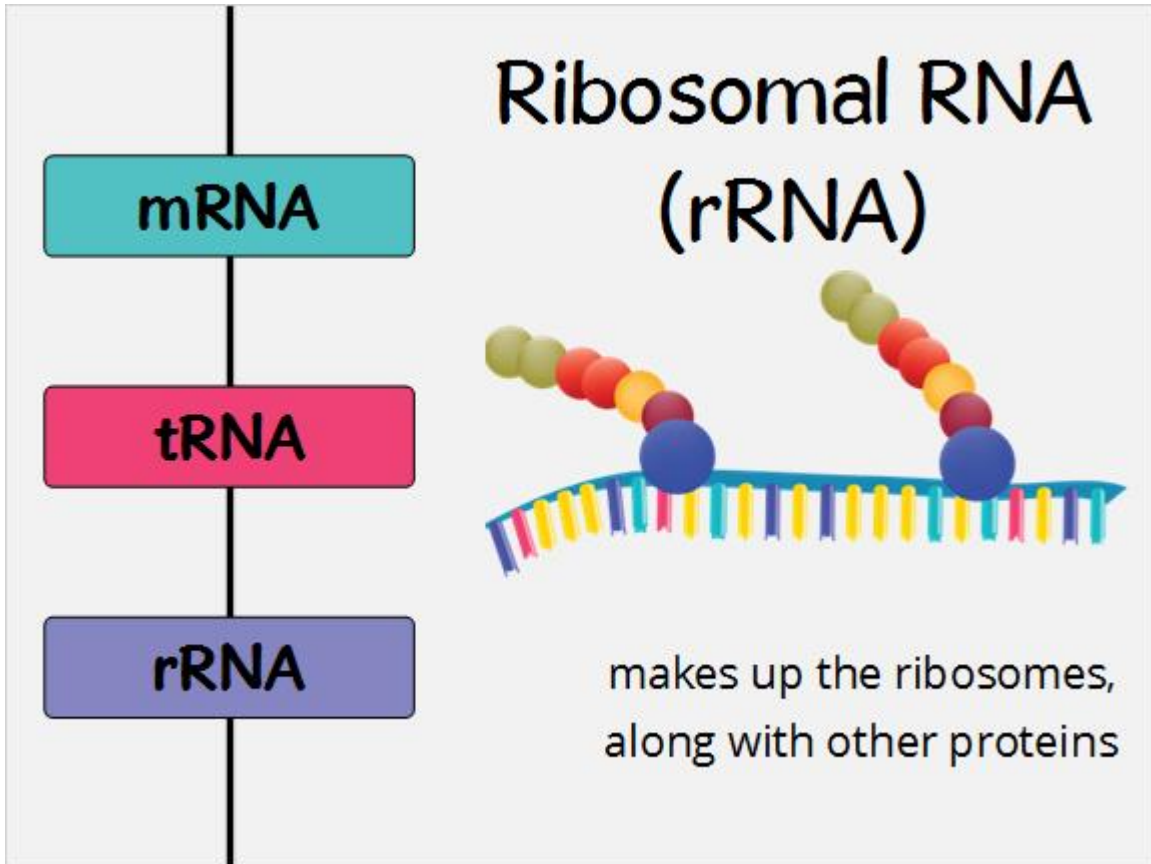
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**tRNA**

Transfer RNA, or tRNA, brings amino acids to the ribosomes to build proteins.

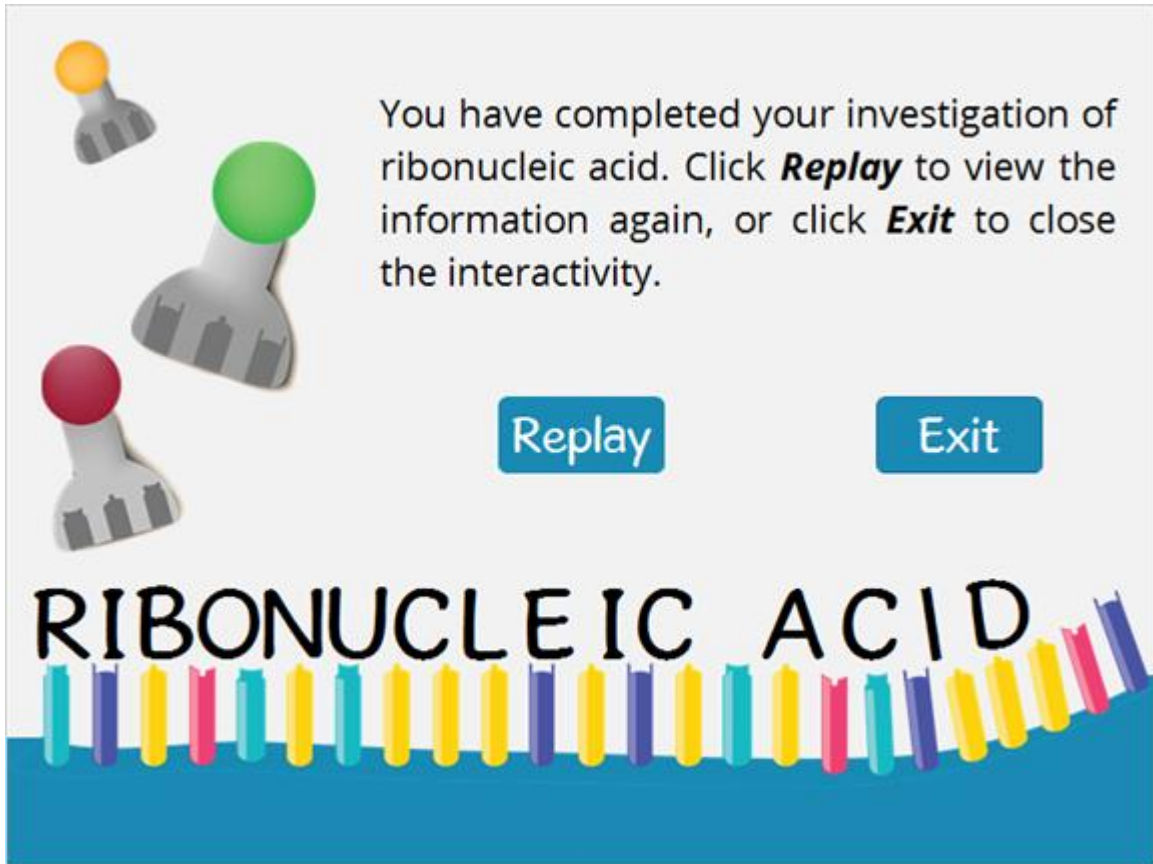
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**rRNA**

Ribosomal RNA, or rRNA makes up the ribosomes, along with other proteins.

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You have completed your investigation of ribonucleic acid. Click **Replay** to view the information again, or click **Exit** to close the interactivity.

[Replay](#) [Exit](#)

**RIBONUCLEIC ACID**

The interface features three 3D molecular models on the left: a small grey base with an orange sphere, a larger grey base with a green sphere, and a medium grey base with a red sphere. Below the text are two blue buttons labeled 'Replay' and 'Exit'. At the bottom, the words 'RIBONUCLEIC ACID' are displayed in large black letters, with a row of colorful vertical bars (cyan, purple, yellow, pink) underneath, resembling a chromatogram or gel electrophoresis pattern.