Different kinds of RNAs mRNA tRNA rRNA
Role of mRNA in protein synthesis? mRNA carries the information about the protein to be synthesized and reaches the ribosome. mRNA is formed from DNA.
Activities that take place in the nucleus mRNA is formed from DNA. mRNA reaches out of the nucleus, carrying the information from DNA.
Activities that take place in the cytoplasm tRNA brings different kinds of amino acids to ribosomes. Based on the information in mRNA protein is synthesized by adding amino acids.

Flow chart (To the science diary)

DNA synthesises mRNA \rightarrow mRNA carries the information of DNA \rightarrow mRNA reaches ribosome \rightarrow tRNA brings different kinds of amino acids to ribosomes \rightarrow Based on the information in mRNA, protein is synthesized.