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Exons are those sequences that appear in mature and processed RNA. Exons are interrupted by introns. Introns do not appear in mature and processed RNA.

- In eukaryotes, there are three different RNA polymerase enzymes I, II and III, they catalyse the synthesis of all types of RNA.

RNA polymerase I – rRNAs

RNA polymerase II – mRNA

RNA polymerase III – tRNA

The m-RNA provide the template, t-RNA brings the amino acids and read the genetic code, the r-RNA play structural and catalytic role during translation.

DNA Replication	RNA Transcription
Two new molecules of double-stranded DNA are produced.	One new molecule of single-stranded RNA is produced.
Adenine on one strand binds to thymine on the new DNA strand being created.	Adenine on DNA binds to uracil on the new RNA strand being created.
The entire chromosome is replicated.	Only a small portion of the DNA molecule is transcribed to RNA, and this varies based on the cell's needs at the time.
Enzymes: DNA polymerase	Enzymes: RNA polymerase
Occurs in nucleus.	Occurs in nucleus.

The primary transcript contains both exon and intron and is non-functional. It undergoes the process of splicing in which introns are removed and exons are joined in a defined order.

The hnRNA (heterogeneous nuclear RNA) undergo additional processing called as capping and tailing. In capping an unusual nucleotide (methylguanosine triphosphate) is added to the 5' end of hnRNA. In tailing polyadenylate tail is added at 3' end in a template independent manner.