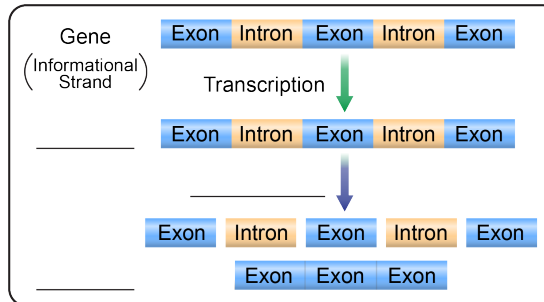


CONCEPT: PROCESSING OF PRE-mRNA

- Eukaryotic (animal & plant) DNA contains segments called exons and introns.
 - **Exons:** code for proteins.
 - **Introns:** do not code for proteins.
- **Transcription:** copies _____ exons and introns to pre-mRNA (hnRNA).
- **Processing:** spliceosomes process pre-mRNA to produce _____ mRNA for protein synthesis.
 - Cut the introns out and _____ the exons together.

MEMORY TOOL: _____ons are _____pressed.



- **Recall:** mRNA moves out of the nucleus to the _____ in the cytosol for protein synthesis.

EXAMPLE: Which of the following statements is incorrect about hnRNA processing?

- a) hnRNA is processed inside the nucleus in structures called spliceosomes.
- b) Introns do not code for proteins and are removed from hnRNA during processing.
- c) Spliceosomes join the exons together after introns are removed.
- d) hnRNA is processed to reduce its size so that it can fit inside ribosomes.

PRACTICE: The underlined sections of the pre-mRNA below are introns. Write the sequence for mature mRNA.

5' GCC CGA UUU AUC AGG GAC CCA 3'

- a) 5' GCC UUU AUC AGG 3'
- b) 5' GCC UUU GAC CCA 3'
- c) 5' GCC CGA AUC AGG 3'
- d) 5' GCC CGA UUU CCA 3'