

## GENE CONTROL IN EUKARYOTES (Nelson Biology 12, Chapter 5)

### A. Table 1: Four Levels of Control of Gene Expression in Eukaryotic Cells (pg. 255)

Type of Control	Description
	Regulates _____ genes are transcribed or controls the _____ at which transcription occurs.
	The _____ molecules undergo changes in the _____ before translation occurs. _____ are removed and _____ are spliced together.
	Controls how _____ and how _____ mRNA transcripts are translated into _____.
	Factors which affect the rate at which a protein becomes _____ and the time it remains _____ (often controlled by addition of various _____ groups)

### **B. Posttranscriptional Modifications**

1. Read pp. 242-244 in Nelson Biology 12.
2. Explain each of the bold terms
  - primary transcript, 5' cap, poly-A-polymerase, poly-A tail, exons, introns, spliceosomes, mRNA transcript
3. Draw Fig. 4 on pg. 244