

## Chapter 13 Keys to Success

What is an operon?

What are the roles of the promoter, operator, structural genes and regulatory genes in an operon's function?

Describe the processes regarding how the *trp* and *lac* operons function.

Briefly describe how eukaryote regulate gene expression through:

Chromatin structure

Transcriptional control

Post-transcriptional control

Translational control

Post-translational control

Describe why Calico cats have their unique color pattern.

Is it possible for inheritance to transmit independently of genes? How?

What is the difference between germ-line and somatic mutations? If you had a child while you had cancer, would your child come out with your cancer?

What is a point mutation? What are the three possible outcomes of this mutation type?

Explain how a frameshift mutation works? Is this a particularly damaging type of mutation?