# Genes - Accessible Text Version

### Codes to Make Proteins

A gene is made up of hundreds to thousands of nucleotides. These nucleotides are both exons, which are sections that code for amino acids, and introns, which are non-coding segments.

### Types of Genes

A genome refers to all the DNA found in an organism. This would be DNA in the nucleus, the mitochondria, chloroplasts (for plants and some protists), and in the plasmids of bacteria and prokaryotes.

### Interesting Variations

Microgenes are very small in length (about 300 nucleotides) and relatively recently discovered. Pseudogenes are copied genes that mutate so they no longer work and don't affect function.

### Genes That Affect Other Genes

Jumping genes (or transposons) are segments of DNA that literally move to another location and affect the gene expression of these genes.

### Genes That Can Affect Macroevolution

Horizontal gene transfer involves DNA moving from different, unrelated organisms (interspecific) and once incorporated into the genome of the 'host', it can potentially influence gene expression and evolution. This can result in the rapid addition of new traits and genes.