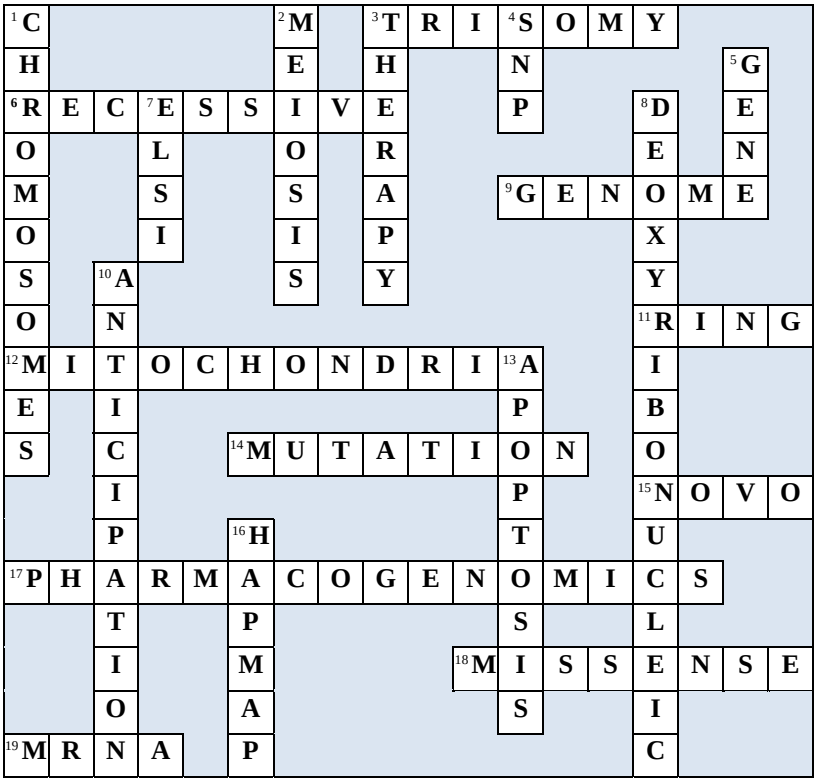
Genetics Home Reference crossword puzzle answers

Created February 2009

This crossword puzzle includes common terms and concepts used in human genetics. All of the answers can be found in the Help Me Understand Genetics Handbook (http://ghr.nlm.nih.gov/handbook/).



	Across		Down
3	A common form of aneuploidy in which each cell contains one extra chromosome.	1	Humans have 23 pairs of these DNA-containing structures in each cell.
6	In autosomal ____ inheritance, two mutated copies of the gene are present in each cell.	2	The type of cell division that creates egg and sperm cells.
9	An organism's complete set of DNA, including all of its genes.	3	Gene ___ is an experimental technique that uses genes to treat or prevent disease.
11	This type of chromosome abnormality occurs when a chromosome breaks in two places and the ends of the chromosome arms fuse together to form a circular structure.	4	A difference in a single DNA building block; also the most common type of genetic variation among people.
		5	The basic physical and functional unit of heredity.
12	These complex organelles convert energy from food into a form that the cell can use. They also have their own genetic material, separate from the DNA in the nucleus.	7	The part of the Human Genome Project that identified and addressed issues raised by genomic research that would affect individuals, families, and society.
14	A permanent change in the DNA sequence that makes up a gene.	8	DNA stands for _____ acid.
15	Mutations that occur only in an egg or sperm cell, or those that occur just after fertilization, are called de_____ mutations.	10	This occurs when the signs and symptoms of a genetic condition become more severe and appear at an earlier age as the disorder is passed from one generation to the next.
17	The study of how genes affect a person's response to drugs.	13	The process that leads to the self-destruction of cells; also known as programmed cell death.
18	The type of mutation that results in the substitution of one amino acid for another in the protein made by a gene.	16	An international scientific effort to identify common genetic variations among people: The International ____ Project.
19	This chemical cousin of DNA is critical for the process of transcription.		