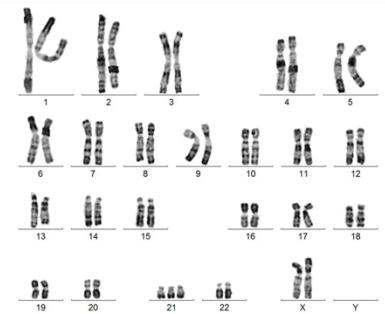


Inheritance of genes:

Questions:

- 1) Do both parents contribute equally to genetics of the child?
 - Here we are talking about protein “coding genes”.



No

- 2) Which parent passes on more genetic information to their offspring?

Mother

- 3) What percent of genes does a male offspring inherit from the father? From the mother?
What percent of genes does a female offspring inherit from the father? From the mother?
 - Start by looking at how many protein coding genes each parent passes to each offspring sex.
 - Find the number of genes on the autosomal chromosomes, the sex chromosomes, and the mitochondria

Genes a male offspring inherit from the father: Autosomal + Y

Genes a male offspring inherit from the mother: Autosomal + X

Total genes of a male offspring = 2(Autosomal) + X + Y

Male offspring: *48.97% from father*
51.02% from mother

Genes a female offspring inherit from the father: Autosomal + X

Genes a female offspring inherit from the mother: Autosomal + X + mitochondria

Total genes of a female offspring = 2(Autosomal + X)

Female offspring: *49.98% from father*
50.01% from mother