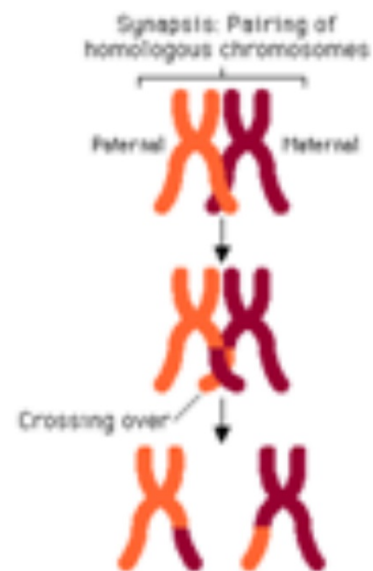


Crossing Over of Chromosomes

Process in which
homologous
chromosomes exchange
portions of their
chromatids during
meiosis

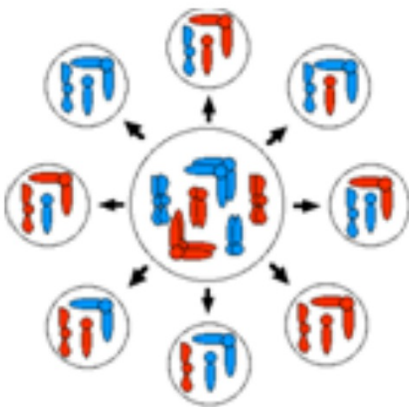


<http://www.youtube.com/watch?v=op7Z1Px8004&feature=related>

Random/Independent Assortment of Chromosomes

Independent segregation (separation)

of genes during the formation of gametes

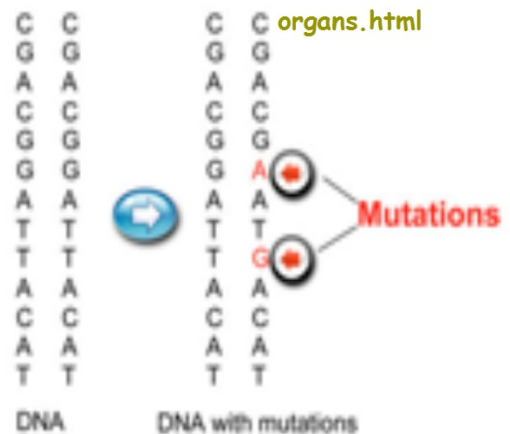


Gene Mutations

A change
in the
DNA sequence
that affects
genetic
information

<http://www.animalplanet.com/tv-shows/river-monsters/videos/fishing-for-mutated-monsters-in-contaminated-chernobyl-waters.htm>

<http://dsc.discovery.com/videos/human-mutants-mutant-human-organs.html>



<https://www.youtube.com/watch?v=qVmusHZtQms>

watch from 4:00-8:00

Nondisjunction

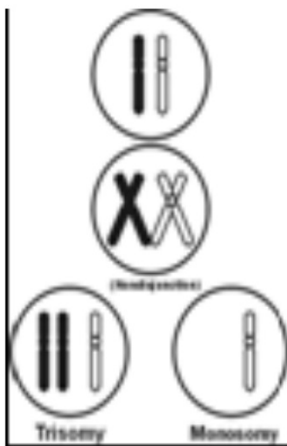
Error in meiosis

in which

homologous

chromosomes fail

to separate.

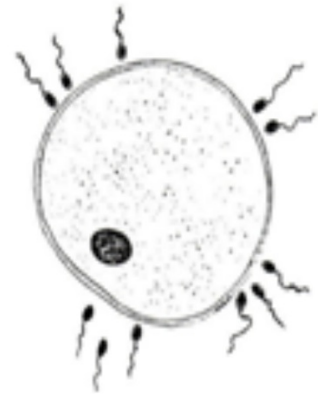


Ex: Down Syndrome - XXX on #21

<http://www.youtube.com/watch?v=EA0qxhR2o0k>

Fertilization

Process in sexual reproduction in which male and female reproductive cells join to form a new cell.



What is a karyotype?

Karyotype= **a picture of chromosomes**

-Humans have **23** pairs of chromosomes;
46 total chromosomes.

-Half of the chromosomes came from the
mom and half came from the
dad.

-The mother always gives an **X** chromosome.
The father can give a **X** or **Y** chromosome.

#1-22 = autosomes/body #23 - sex chrom.

**male
normal**

