MUTATIONS

3 results of mutations: harmful, neutral, beneficial

-how can a mutation be beneficial?

-how do we know a mutation is harmful

-what is a neutral mutation?

What are causes of mutations?...can be spontaneous or caused by?????

Difference between mutagen, teratogen, carcinogen

2 categories of mutations…Point and Chromosomal

-which ones can be inherited?

Point Mutations

Point mutations are a source of variability but what are point mutations they or how formed?

Point mutations can be categorized in 3 types of severity…

Same-sense? What is this?

Mis-sense? What is this?

Non-sense? What is this?

When amino acids are changed in point mutations, this is because of 3 possible reasons…

Deletion…What are these…Make or provide an example

Addition… What are these…Make or provide an example

Substitution… What are these…Make or provide an example

What are "frameshift" mutations?...give an example…

When would a mutation in a DNA sequence NOT make a difference in the amino acid produced?

Chromosomal Mutations

How many pairs of chromosomes do we have?

What is it called when we arrange an individuals chromosomes?

How are chromosomes arranged?

Why would we use amniocentesis or chorionic villus sampling to produce a karyotype?

Why is late prophase, but even better, Metaphase, the best time to take samples for a karyotype?

Abnormal Meiosis

What is nondisjunction?

What is created by nondisjunction?

When are two possible times that it can occur in cell division?

Trisomy? Know how to identify in a karyotype

Monosomy? Know how to identify in a karyotype

Don't worry about memorizing the examples of different chromosome abnormalities (ie) Turners syndrome, Down Syndrome, Jacobs syndrome…just know how or why these chromosomal problems occur