

Name: _____ Date: _____ Period: _____

Honors Biology: Chromosome Alterations (8.24) Guided Reading

How is DNA organized and packaged within a cell?

1. On your own...Read Section 8.24

2. Define the following terms:

- Deletion: *the loss of a fragment of a chromosome*
- Duplication: *repetition of part of a chromosome due to fusion with a part of a homolog*
- Inversion: *a change in a chromosome due to a fragment reattaching in an opposite direction*
- Translocation: *a change in a chromosome resulting from a fragment attaching to a non homologous chromosome*

3. Why are inversions less likely to cause harmful effects?

... than deletions... because no information has been lost (or in duplications... gained)

4. Chromosomal changes in gametes (sperm or egg) lead to... While chromosomal changes in somatic cells can lead to...

... congenital disorders

... cancers

5. How is translocation different from crossing over?

*↓
exchange
between
non-homologs*

*↓ exchange between
homologs*