

Name _____ Date _____ Period _____

STUDY GUIDE CHAPTER 8

1. There will be 15 multiple choice questions based on the following topics:
 - chromosomes, mitosis, meiosis, sexual reproduction, asexual reproduction
 - phases of the cell cycle, crossing over, density-dependent inhibition, cancer
2. Know all the important vocabulary:

centriole, spindle fiber, centromere, sister chromatids, homologous chromosomes, crossing over, karyotype, haploid, diploid, zygote
3. Define nondisjunction and know the examples. Know what n , $n+1$, and $n-1$ are and how they can be produced.
4. Know the 4 types of chromosomal mutations:

duplication, deletion, inversion, and translocation
5. Know and describe the 4 parts to the cell cycle. Draw the cycle diagram.
6. List the 6 phases of mitosis in order. Describe each phase. Draw each phase.
7. Compare and contrast MITOSIS, MEIOSIS 1, and MEIOSIS 2.
Study this section carefully! The questions are detail-oriented.
8. Know the # of chromosomes in the human egg and sperm cells. Why is this number important?
9. Know each of these...

XX, XY, trisomy 21, XO, XXY, YO
10. Know how the cell cycle (G1, S, G2, or M) is affected by...
 - a. cancer
 - b. brain injury or drugs
11. Know the difference between cytokinesis in animal cells versus plant cells.
12. Know the 2 ways that meiosis can increase the genetic diversity of a species.
13. Be familiar with all of the labs and activities we did in chapter 8.