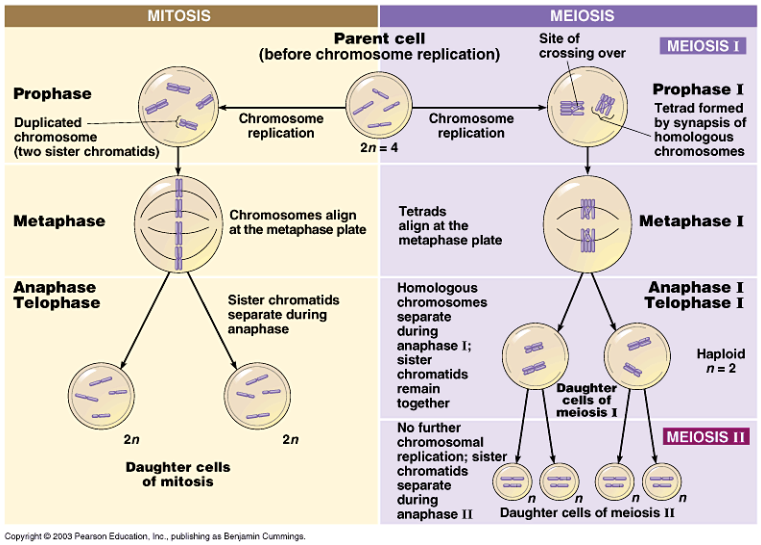
PCB BIO 4 ASSIGNMENT SHEET 12:NOVEMBER 10-13 , 2009

Reading, Preparation, Study Questions, Practice Essays, Labs.

ASSIGNMENT	DESCRIPTION
MONDAY	I was absent dealing with germs and young, short humans (both XX and XY). There will be an exam on cell division and gamete production next Tuesday, November 17 in class. Essentially chapter 8. We are going to do a lot this week. First, we will catch up like Heinz as you ask questions in class about knowledge that you are not feeling too knowledgeable about. You will review the cell cycle,cancer and stem cells. Then you will learn about meiosis, and chromosomal disorders in humans, and you will prepare for an exam on chapter 8. Boom tho.
TUESDAY	1. What is the key difference between meiosis and cell division? 2. Explain how chromosomes are paired. Distinguish between autosomes and sex chromosomes. 3. Distinguish between (a) somatic cells and gametes and (b) diploid cells and haploid cells. 4. List the phases of meiosis I and meiosis II, and describe the events characteristic of each phase. Recognize the phases of meiosis from diagrams or micrographs. 5. Describe key differences between mitosis and meiosis. Explain how the result of meiosis differs from the result of mitosis. 6. Explain how crossing over during prophase I of meiosis, independent orientation of chromosomes at metaphase I, and random fertilization contribute to genetic variation in sexually reproducing organisms.
WEDNESDAY	1. Describe the causes and symptoms of Down syndrome. 2. Define nondisjunction, explain how it can occur, and describe what can result. 3. Describe the consequences of abnormal numbers of sex chromosomes, including the diseases and syndromes associated with them. 4. Describe the main types of chromosomal changes. Explain why cancer is not usually inherited.
THURSDAY	Find articles/knowledge about stem cells. Some people are for stem cell research and others are not. Some have no idea what stem cells are. Write a one page opinion paper which discusses your view on stem cell research. You will not be graded on your opinion.
FRIDAY	Study for the exam. Study like a student. Also, Prepare for genetics knowledge by reading through chapter 9.



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