

1A GUIDED READING QUESTIONS 6.9-6.13, &7.10

- Compare and Contrast a gamete vs. a zygote. How many chromosomes are in a human gamete and a human zygote? Give two examples of human gametes.
- Describe the process of fertilization in your own words.
- Explain the difference between a diploid and haploid cell.
- How many chromosomes did you inherit from your mother.....and from your father?
- Explain the differences between germ cells and somatic cells.
- Meiosis I and Meiosis II have very different goals. Explain the difference in purpose between Meiosis I and Meiosis II.
- What is crossing over and in what stage of Meiosis does it take place?
- Explain the process of independent assortment. What stage of Meiosis is responsible for producing independent assortment of the homologous chromosomes?
- Meiosis begins with:
 - How many cells?
 - What type of cells? (Diploid or haploid)
 - How many total chromosomes in the starting cells?
- Meiosis I ends by producing:
 - How many cells?
 - What type of cells? (Diploid or haploid)
 - How many total chromosomes in each resulting cell?
- Meiosis II ends by producing:
 - How many cells?
 - What type of cells? (Diploid or haploid)
 - How many total chromosomes in each resulting cell?
- What is synapsis and when does it occur?
- Explain the characteristic of genetic diversity. Why is genetic diversity important? Which events during Meiosis help to promote genetic diversity?
- What is nondisjunction?