

Questions (think of questions that might be on the exam)

Q. What is the relationship between alleles and chromosomes?

- A. Chromosomes and Inheritance
- a. 1903 – American geneticist Walter Sutton
 - b. Asked the question – how do _____ form?
 - c. Studied _____ cells and discovered:
 - i. Body cells have _____ chromosomes
 - ii. Sex cells have _____ chromosomes
1. Chromosome pairs
- a) Grasshopper offspring have 24 chromosomes = _____
 - b) One chromosome in each pair _____
2. Genes on Chromosomes
- a. Alleles are forms of a gene – _____
 - b. Chromosome theory of _____
 - i. Genes are carried from _____ to their _____ on _____
- B. Meiosis
- a. **Meiosis** – _____
 _____ (sperm and eggs)
 - b. What Happens During Meiosis
 - a) 1 parent cell's chromosomes are _____
 - b) Parent's chromosomes are in pairs = _____
 - c) Pairs separate into _____ daughter cells
 - d) Chromosomes and daughter cells _____
 - 1. _____
 - 2. have _____
 - 3. _____ chromosome comes from each original pair
 - c. Meiosis and Punnett Squares
 - a) Punnett squares show what happens during _____
 - b) Chromosome pairs separate to each _____
 - c) Alleles on the chromosomes also separate (_____)
- C. A Lineup of Genes
- a. Chromosomes are made up of many _____
 - a) A human body cell has _____
 - b) A human body cell has _____
 - b. Genes are _____

Summary (Complete about 5 sentences on Back):