

Name _____

Meiosis I vs. Meiosis II: The Great Chromosomal Divide

Short Answer Key

1. Crossover events in meiosis I involve the exchange of genetic material between homologous chromosomes, increasing genetic diversity among offspring.
2. Meiosis I produces two haploid cells, while meiosis II produces four haploid gametes.
3. In metaphase I, homologous chromosomes align in pairs, while in metaphase II, individual chromosomes align.
4. Meiosis II ensures that sister chromatids are separated, creating genetically unique gametes.
5. The genetic material of the four haploid gametes produced in meiosis II is different due to the random assortment of chromosomes during meiosis I.

