**Words to Describe A Cell’s Chromosomes**

|  |  |  |
| --- | --- | --- |
| Term | Definition | Example/Illustration |
| Sex chromosome | Chromosome associated with an individual’s sex |  |
| Autosome | A non-sex chromosome |  |
| Homologous chromosomes | In a diploid organism, chromosomes that are similar in size, shape, and gene content |  |
| Haploid Number | The # of different types of chromosomes in a cell; symbolized *n* |  |
| Haploid | Having one of each type of chromosome (n) |  |
| Diploid | Having two of each type of chromosome (2n) |  |
| Karyotype | The distinctive appearance of all the chromosomes in an individual |  |
| Karyogram | A photo of the chromosomes of a cell, arranged in sequence |  |

**Structures Involved in Mitosis**

|  |  |  |
| --- | --- | --- |
| Structure | Definition | |
| Chromosome | | Structure composed of a DNA molecule and associated proteins | |
| Chromatin | | The material that makes up Eukaryotic chromosomes; consists of a DNA molecule complexed with histone proteins | |
| Chromatid | | One strand of a replicated chromosome, with its associated proteins | |
| Sister chromatids | | The two strands of a replicated chromosome. When chromosomes are replicated, they consist of two sister chromatids. The genetic material in sister chromatids is identical. When sister chromatids separate during mitosis, they become independent chromosomes. | |
| Centromere | | The structure that joins sister chromatids | |
| Kinetochores | | The structures on sister chromatids where kinetochore microtubules attach | |
| Centrosome | | The microtubule organizing center in animals | |
| Centrioles | | Cylindrical structures that comprise microtubules, located inside animal centrosomes. | |