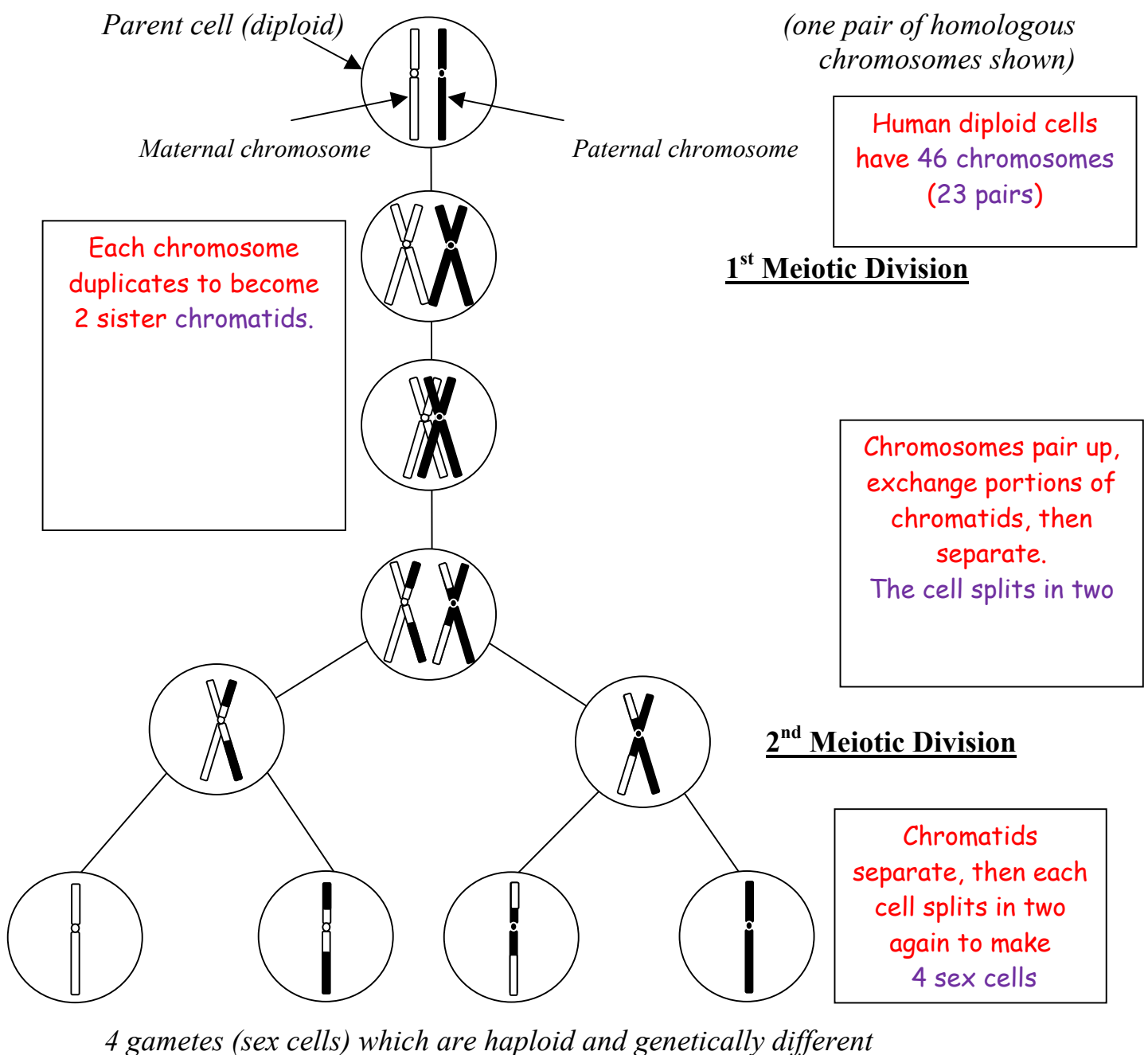
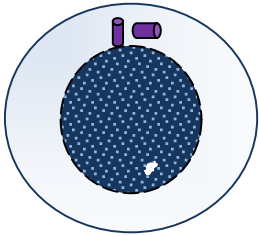


Meiosis (Outline)

1. Meiosis involves **two divisions** of the cell & nucleus
2. **Homologous chromosomes pair up** during 1st division and swap portions of chromatids (**crossing-over**)
3. **Homologous chromosomes separate** during the 1st division.
4. **Chromatids separate** during the 2nd division.
5. One diploid parent cell forms **four haploid gametes** (sex cells)



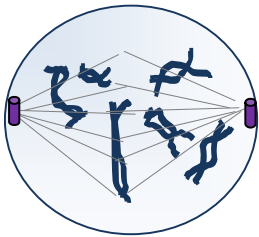
Meiosis: 1st Division



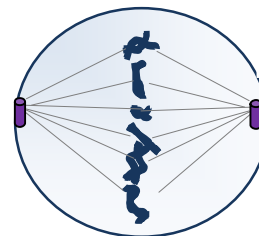
Interphase

- DNA is replicated
- Each chromosome duplicates to become 2 sister chromatids, but they are loosely coiled, so not visible yet.

Prophase I

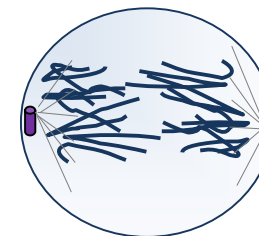


- Homologous chromosomes pair up.
- They swap portions of genetic information.



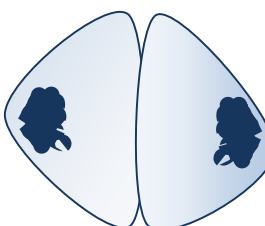
Metaphase I

- Homologous Chromosomes move to the middle of the cell
- They line up on the equator across from each other.



Anaphase I

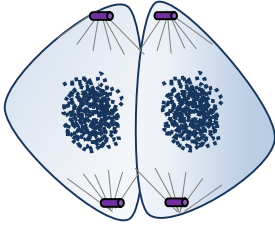
- Spindle fibres contract and pull the chromosome pairs apart.



Telophase I

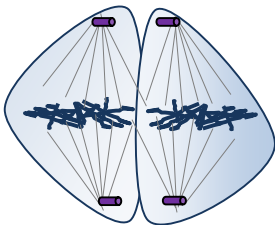
- Chromosomes arrive at the poles of the cell
- The cell divides into two

Meiosis: 2nd Division



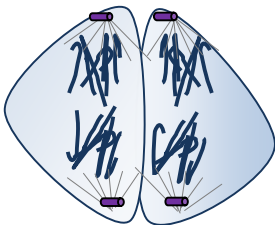
Prophase II

- Chromosomes relax, then condense again



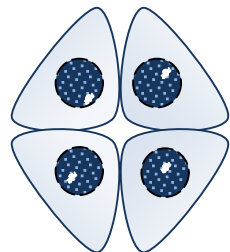
Metaphase II

- Sister chromatids line up at the middle of the cell.



Anaphase II

- centromeres split, & chromatids are pulled apart



Telophase II

- Chromosomes arrive at the poles of each cell
- Each cell divides into two
- Four sex cells (gametes) are made