Source: [KBhBIO101CellCycle]

1 | Meiosis

Meiosis is the process by which sex cells (gametes cells) are produced. These cells have only 23 chromasomes (compared to somatic cell's 23 *pairs*), and they contain a variety of mechanisms for genetic variation.

Meiosis happens in two phases, which happens each in 4 phases:

1.1 | Meiosis 1

The purpose of meiosis 1 is to take the 23 *pairs* of 2-chromatid chomasomes in germline cells (2n diploid, contains two sets of homologous chromosomes) and mix them to separate into two cells containing 23 singular 2-chromatid chromasomes (1n haploid, contains only one set of genes).

- **(P)rophase 1**: the starting cell, a diploid, dissolves its nucleaus and genetic information flows out. Also, b
- **(M)etaphase 1**: homogous PAIRS of chromosomes (**note!** pairs!!! not the chromasomes) line up along the metaphase plate, forming a double-filed lines
- **Anaphase 1**: seperate the homologous pairs to the opposite ends of the cell
- **Telophase 1**: the two new half-cells proceed to seperate further, creating new nuclear envelopes enveloping the 23-unpaired sister chromatids

1.2 | Meiosis 2

The 23 2-chromatid Chromasomes becomes seperated into two more cells each with 23 1-chromatids.