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# Meiosis





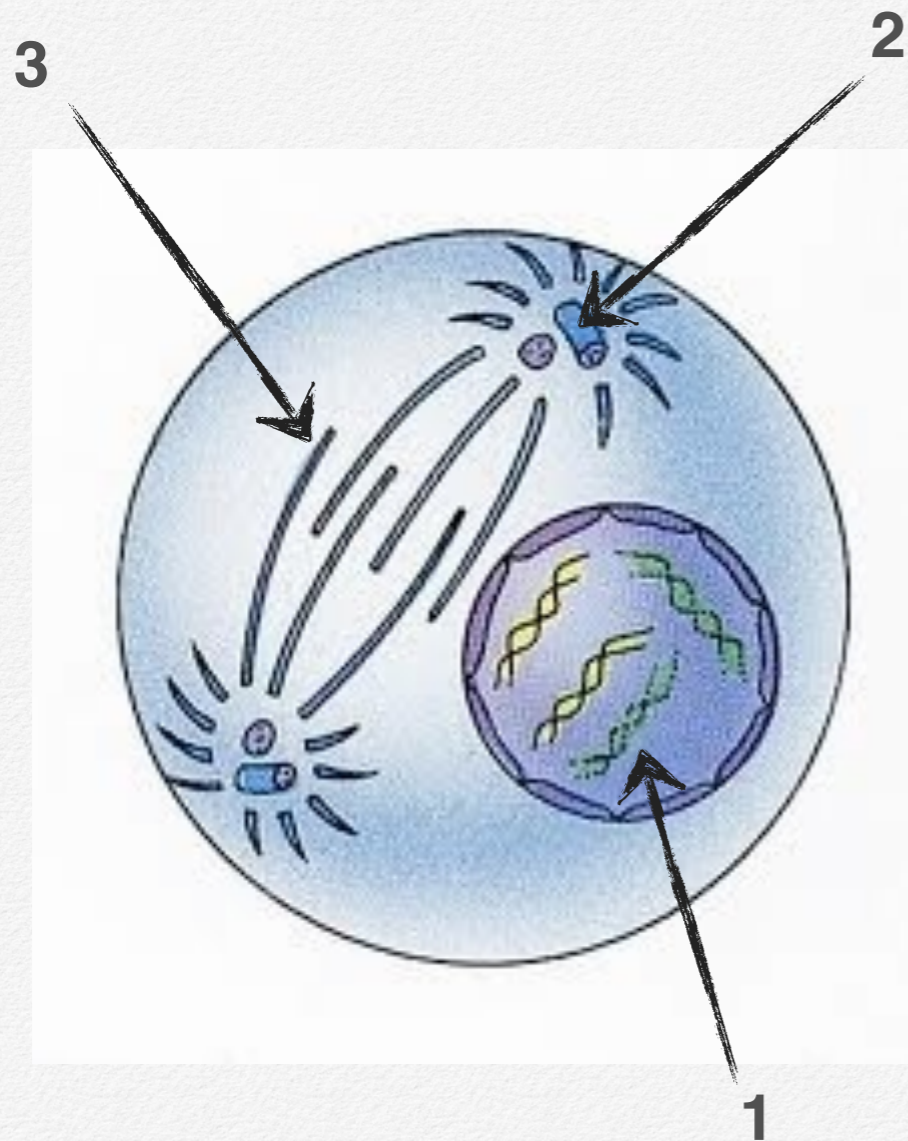
# Meiosis

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Meiosis is the formation of sex cells and has two parts, Meiosis I and Meiosis II. Let's take a look at each part in detail.



# Prophase I

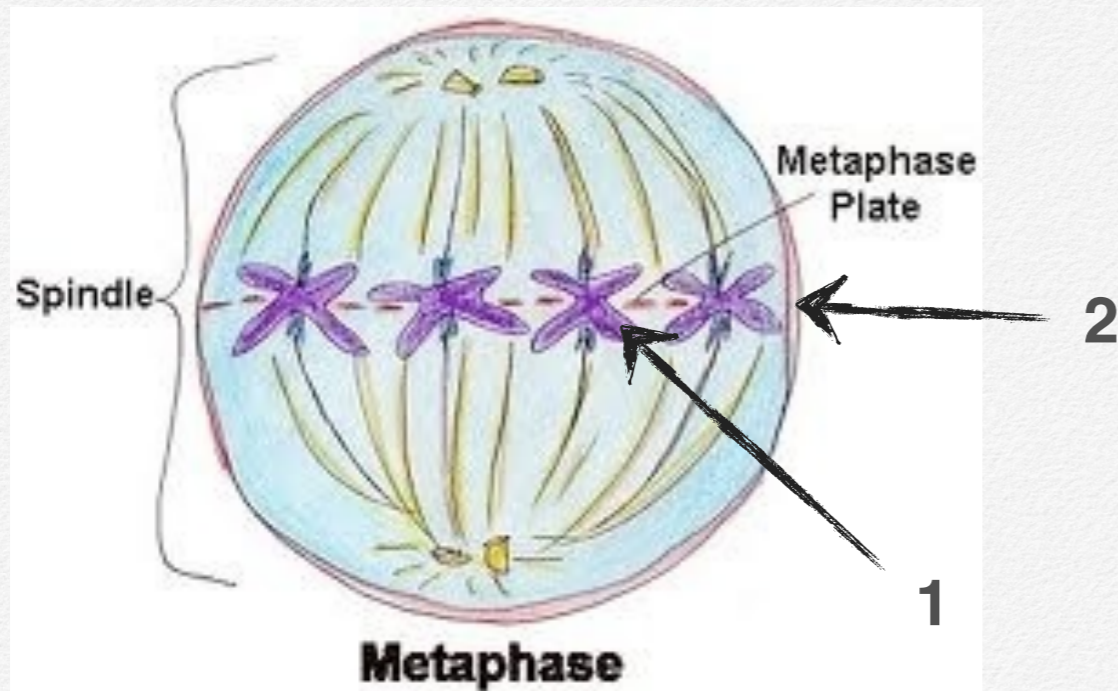


The phases during Meiosis I are Prophase I, Metaphase I, Anaphase I, and Telephase I.

Let's start with Prophase I. Prophase I looks very much like prophase during mitosis. The chromosome pairs (1) have been duplicated and are now clearly visible. The centrioles (2) are moving to opposite ends of the cell and spindle fibers (3) appear in preparation for Metaphase I.



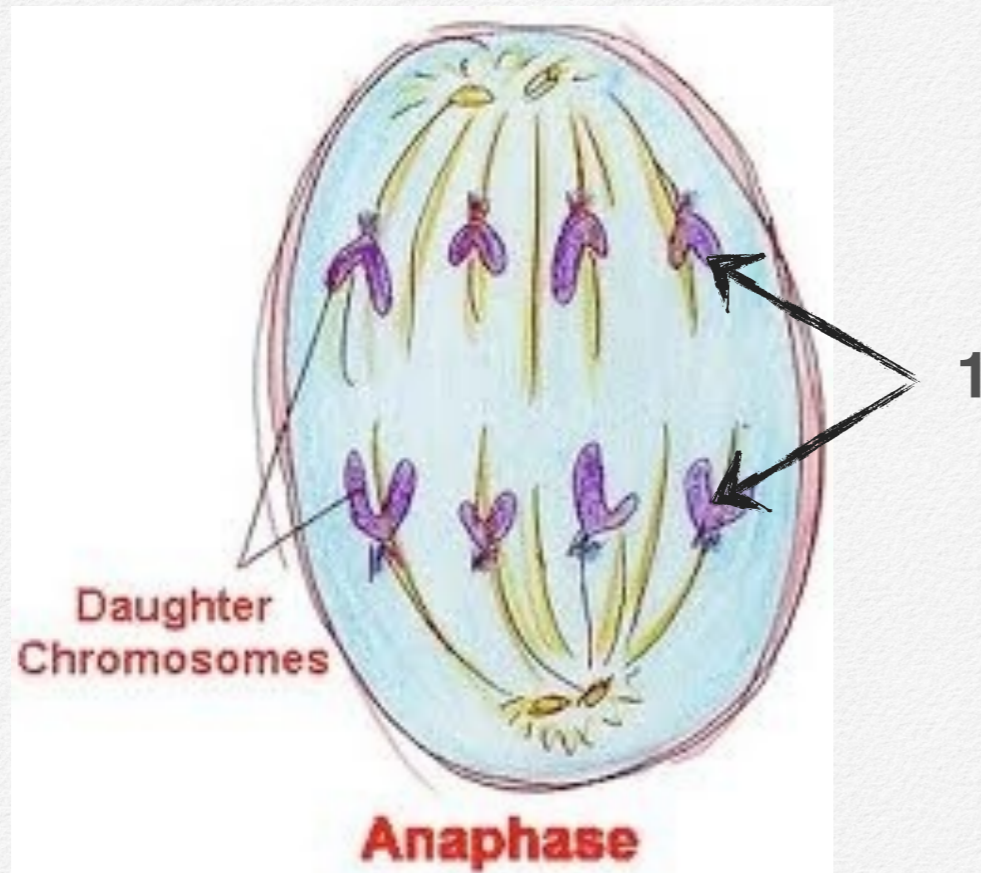
# Metaphase I



Metaphase I during Meiosis I has the chromosome pairs (1) lining up in the middle of the cell along the metaphase plate (2). The spindle fibers attach to the pairs of chromosomes in preparation for Anaphase I.



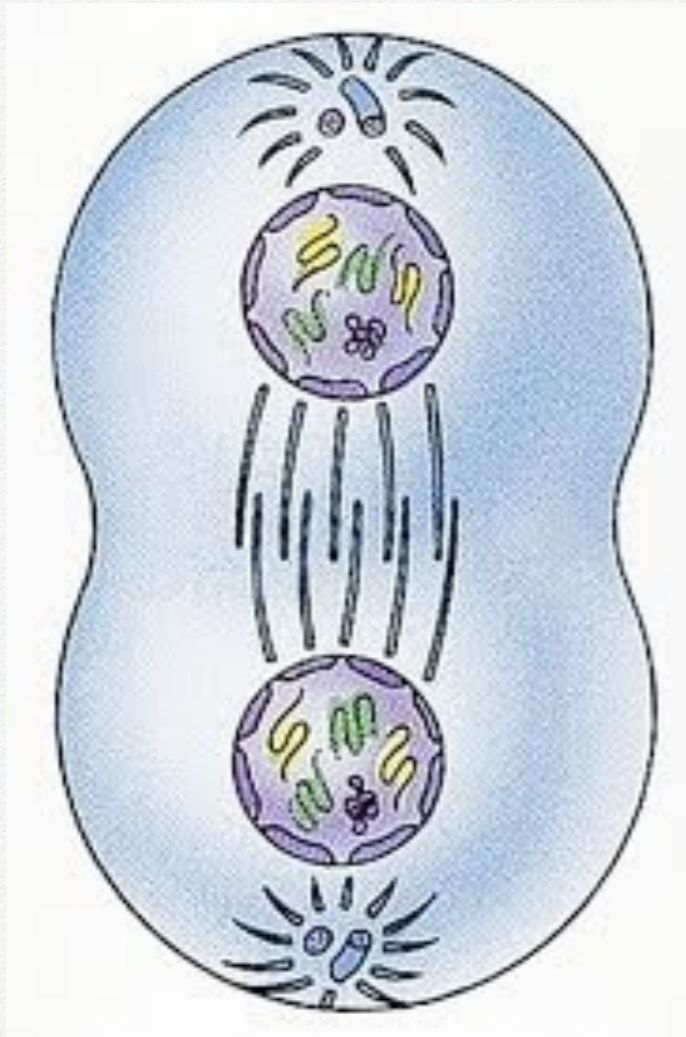
# Anaphase I



Anaphase I during Meiosis I has the spindle fibers pulling the chromosome pairs (1) apart towards opposite ends of the cell in preparation for Telephase I.



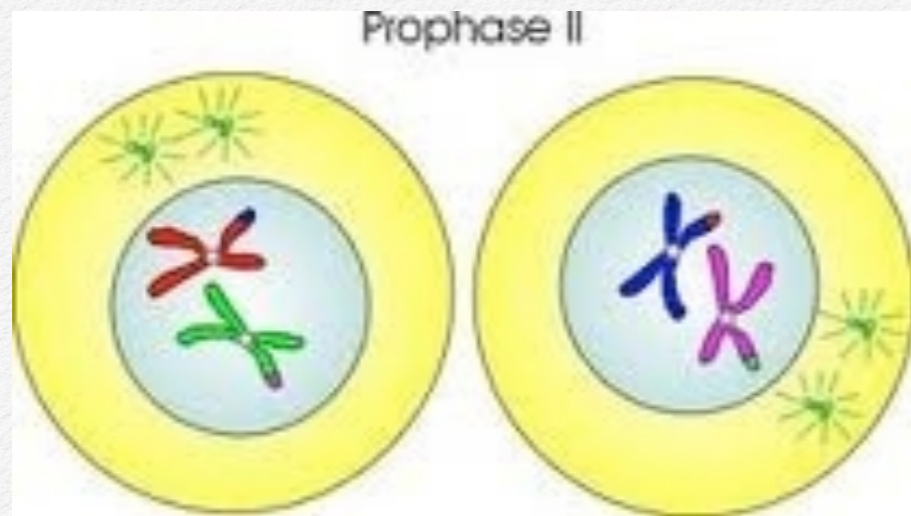
# Telephase I



Telephase I during Meiosis I is where the cell begins to divide into two cells in preparation for Meiosis II.



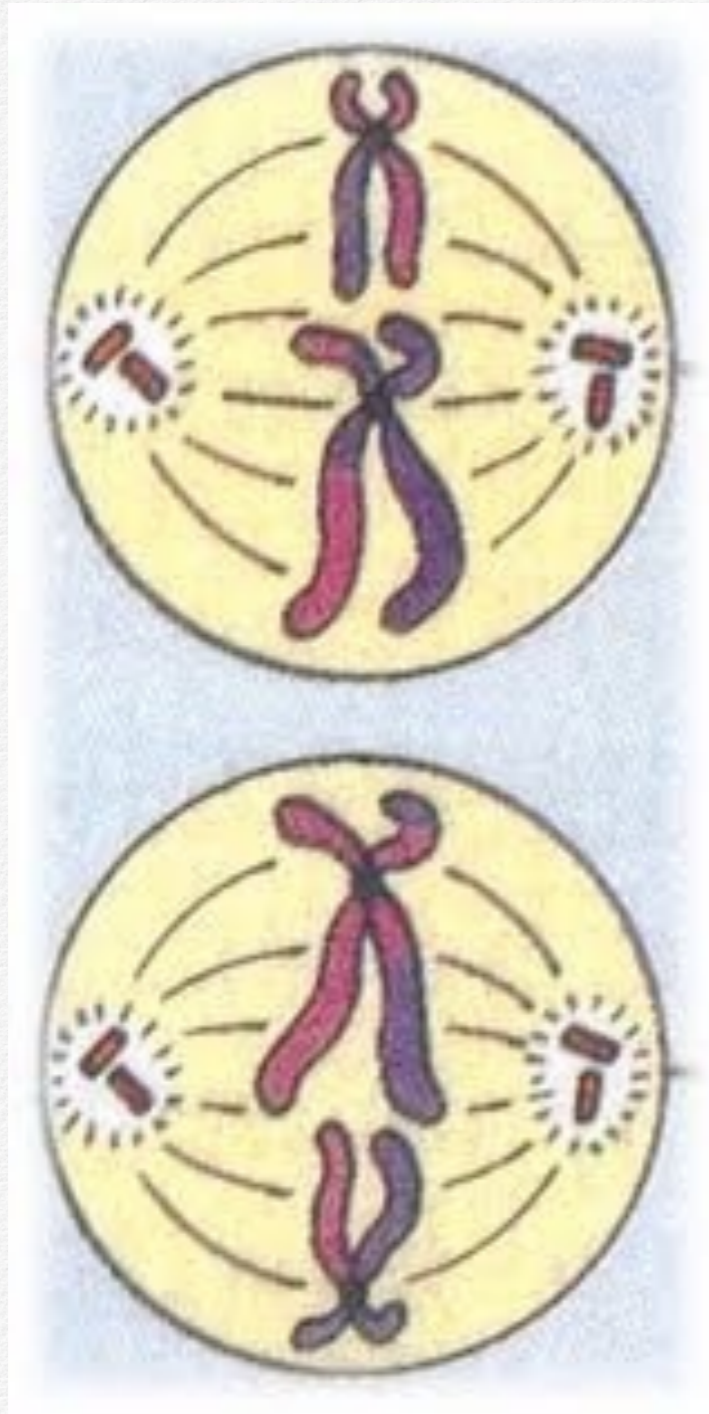
# Prophase II



Meiosis II begins WITHOUT interphase. The chromosomes are NOT duplicated a second time. Instead, the two cells go straight to preparing for Metaphase II.



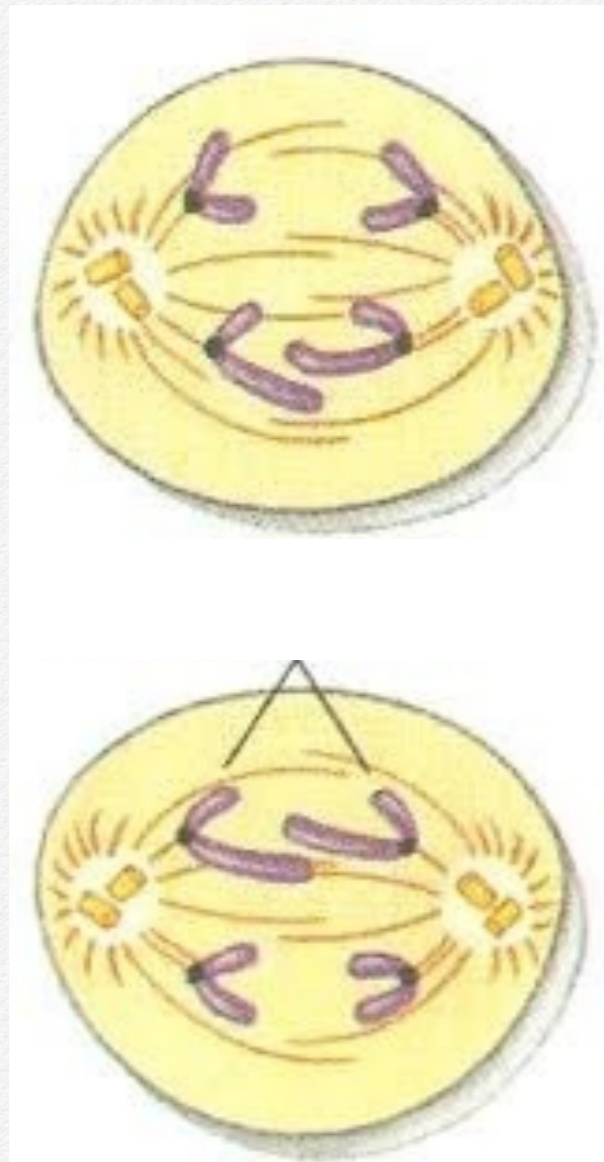
# Metaphase II



Metaphase II has the chromosomes lining up in the middle of the two cells in preparation for Anaphase II.



# Anaphase II



Anaphase II shows the chromosome pairs being pulled apart by the spindle fibers to opposite ends of the cells.



# Telephase II



Telephase II ends Meiosis II with the two cells dividing into 4 new sex cells. The four sex cells, however, only have the number of chromosomes as the original cell.