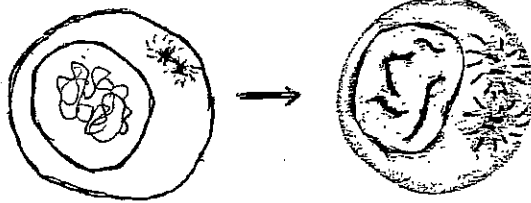


Exploring Meiosis

Interphase
 -cell grows
 -DNA duplicates



Prophase I

- Rod shaped chromosomes form from the chromatin
- centrioles start to move apart
- chromosomes pair up with their copies
- copies attach at the centromere
- nuclear membrane disappears

1 Beginning of Meiosis

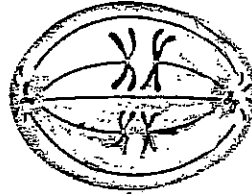


Crossing-over

random alignment

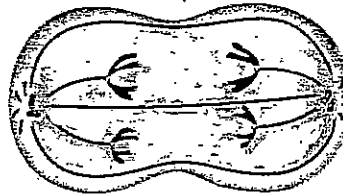
Metaphase I

- centrioles stretched fibers across cell
- paired chromosomes line up along middle of cell and attach to fibers



Anaphase I

- chromosome pairs separate; pulled apart as fibers retract



2 Meiosis I

Telophase I/Cytokinesis I

- nuclear membrane reforms around each set of chromosomes
- final separation of cytoplasm

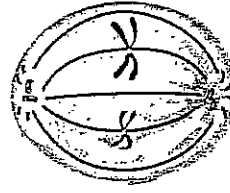
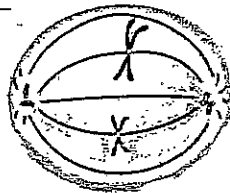


- two new non-identical cells are formed

3 Meiosis II

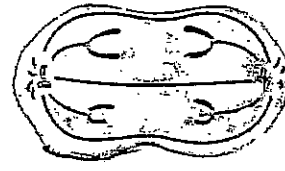
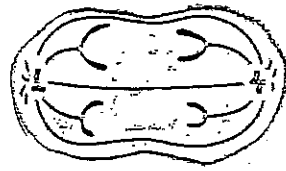
Metaphase II

- paired chromosomes line up along middle of cell and attach to fibers



Anaphase II

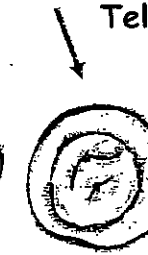
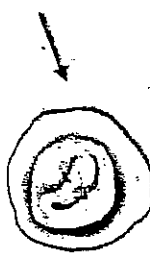
- chromosome pairs separate; pulled apart as fibers retract



independent assortment

Telophase II/Cytokinesis II

- nuclear membrane reforms around each set of chromosomes
- final separation of cytoplasm



4 End of Meiosis

random selection

- four non-identical reproductive cells are formed