

CHAPTER

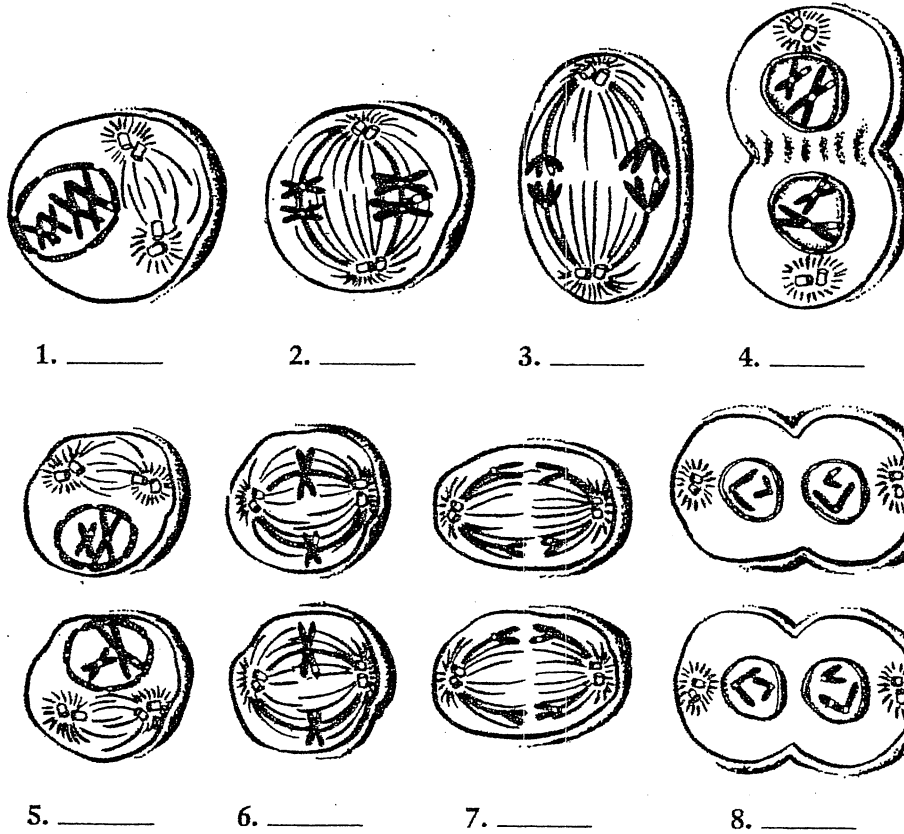
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SCIENCE SKILLS: SEQUENCING/ORGANIZING INFORMATION

Meiosis and Sexual Reproduction

Examine the figure below, which shows the stages of meiosis. Use the figure below to complete items 1-8.

In the space provided in the figure below, write the letter of the stage of meiosis from the list below (a-h) that matches each stage in the figure.



Stages of Meiosis

- | | |
|-----------------|---------------------------------|
| a. anaphase II | e. telophase II and cytokinesis |
| b. metaphase I | f. telophase I and cytokinesis |
| c. anaphase I | g. prophase I |
| d. metaphase II | h. prophase II |

(continued on next page)

In the space provided, write the letter of the description that best matches the stage of meiosis.

- _____ 9. metaphase I
- _____ 10. prophase II
- _____ 11. telophase I
- _____ 12. metaphase II
- _____ 13. telophase II
- _____ 14. anaphase II
- _____ 15. prophase I
- _____ 16. anaphase I

- a. A new spindle forms around the chromosomes.
- b. Chromatids remain attached at their centromeres as the spindle fibers move the homologous chromosomes to opposite poles of the cell.
- c. A nuclear envelope forms around each set of chromosomes, the spindle breaks down, and the cytoplasm divides, resulting in four haploid cells.
- d. Chromosomes gather at the poles; the cytoplasm divides.
- e. The nuclear envelope breaks down; genetic material is exchanged through crossing-over.
- f. Chromosomes line up at the equator.
- g. Pairs of homologous chromosomes line up at the equator.
- h. Centromeres divide, enabling the chromatids, now called chromosomes, to move to opposite poles of the cell.