CYTOLOGY & GENETICS SLIDE SETS

Cat #: CH-GE1 - ANIMAL AND PLANT GENETICS SLIDE SET - 17 slides

- 1 Mitosis of animal sec. (Parascaris equorum)
- 2 Meiosis of animal sec. (Locust)
- 3 Meiosis of Parascaris equorum sec.
- 4 Testis of grasshopper meiosis sec.
- 5 Testis of frog meiosis
- 6 Testis of rabbit meiosis
- 7 Meiosis of plants sections (Lilium anther)
- 8 Root tip of Allium cepa l.s. (show mitotic division)
- 9 Root tip of Zea mays l.s. (show mitosis)
- 10 Chromosome of allium w.m.
- 11 Root tip of vicia faba (show mitosis)
- 12 Meiosis of anther of Zea mays (metaphase1)
- 13 Meiosis of anther of Zea mays (anaphase1)
- 14 Meiosis of anther of Zea mays (telophase1)
- 15 Meiosis of anther of Zea mays (metaphase2)
- 16 Meiosis of anther of Zea mays (anaphase2)
- 17 Meiosis of anther of Zea mays (telophase2)

Cat #: JL-1CEG - THE ANIMAL CELL SLIDE SET - 12 slides

1 - Squamous epithelium, isolated cells from human mouth.

Nuclei and cytoplasm are shown

2 - Striated muscle l.s. showing nuclei, striations, myofibrils

3 - Compact bone and hyaline cartilage t.s., two sections on one slide for comparison
4 - Nerve fibres isolated, fixed and stained by osmic acid to show myeline sheaths and Ranvier's nodes

5 - Liver of Salamandra t.s., showing simple animal cells with cellular membranes, nuclei, and cytoplasm

6 - Kidney of mouse, t.s. vital stained with trypanblue to demonstrate the storage of epithelial cells

7 - Ovary of cat, t.s. showing primary, secondary, and Graafian follicles

8 - Testis of frog, t.s. showing spermatogenesis. Spermatogonia, spermatocytes, spermatids, and mature spermatozoa

9 - Salamandra larva, t.s. of skin and other organs selected to show cell division (mitosis) in various stages

10 - Uteri of Ascaris megalocephala, t.s. iron hematoxyline stained to show details of meiosis with chromosomes and nuclear spindles

11 - Salivary gland of Chironomus larva. Giant chromosomes showing large chromomeres. Stained for DNA after Feulgen

12 - Ova from Psammechinus (sea urchin). Unfertilized ova, fertilized ova, early

Cat #: JL-2CEG - THE PLANT CELL SLIDE SET - 12 slides



- 1 Epidermis of Allium cepa (onion), w.m. showing simple plant cells with cell walls, nuclei and cytoplasm
- 2 Root tips of Allium cepa l.s. showing cell division (mitosis) in all stages, clearly stained
- 3 Pollen mother cells of Lilium. Prophase of first maturation division (meiosis)
- showing chromosomes as fine threads

4 - Pollen mother cells of Lilium. Metaphase and anaphase of first maturation division (meiosis) showing nuclear spindles and contracted chromosomes

- 5 Wood of Tilia macerated and w.m. showing wood cells, vessels and fibres
- 6 Fruit of Pyrus (pear) t.s. showing stone cells (sclerenchyma cells)
- 7 Tuber of Solanum (potato) t.s. shows cork and starch grains

8 - Cucurbita pepo (pumpkin) l.s. of stem showing vascular bundles with sieve tubes, spiral and annular vessels, sclerenchyma fibres

9 - Ricinus endosperm t.s. showing aleurone grains

- 10 Anthers of Lilium (lily), t.s. showing pollen sacs and pollen grains
- 11 Ovary of Lilium (lily), t.s. showing arrangement of ovules and embryosac
- 12 Spirogyra showing conjugation stages and formation of zygotes

Cat #: JL-9CEG - DEVELOPMENT OF THE MICROSPORE MOTHER CELLS OF LILIUM CANDIDUM SLIDE SET - 12 slides



1 - Leptotene, the chromosomes appear as fine threads

2 - Zygotene, the homologous chromosomes associate in pairs. The chromosomes appear as strings of beads

3 - Pachytene, complete pairing of the chromosomes

4 - Diplotene, shortening of the chromosomes by contraction. Interchange of chromatin between the maternal and paternal chromosomes (crossing over)

5 - Diakinesis, further contraction of the bivalents, the nuclear membrane disappears

6 - Metaphase and anaphase of the first (heterotypic) division, showing spindle threads. Two haploid sets of chromosomes are separated

7 - Telophase of the first and prophase of the second division

8 - Metaphase and anaphase of the second (homeotypic) division, two mitotic figures are present.

9 - Pollen tetrads, four nuclei are formed after the second division, each bearing the haploid number of chromosomes. Formation of cell walls

10 - Uninucleate microspores after separation of daughter cells

11 - Mature two-nucleate pollen grains at the time of shedding. Each pollen grain possesses a tube cell and a generative cell

12 - Mature pollen grains, w.m. to show structure of the cell walls