## MICROSCOPE SLIDES

## Cells, Tissues and Organs Slide Set 13 slides



1 - Simple animal cells in sec. of salamander liver
2 - Mitosis, 1.s. from Allium root tips showing all stages of mitosis
3 - Ranunculus, buttercup, t.s. of a typical dicot root
4 - Monocot and dicot stems, two t.s. for comparison
5 - Syringa, lilac, t.s. of a typical mesophytic dicot leaf
6 - Columnar epithelium, t.s of blind gut from rabbit
7 - Bone and hyaline cartilage, t.s.
8 - Striated muscles of mammal, 1.s.
9 - Smooth muscles of mammal, 1.s. and t.s.
10 - Lung of cat, t.s.
11 - Human blood smear
12 - Human body skin, l.s.
Cat \#: JL-1ScMH - \$ 156.24 (Ex.GST) 13 - Young mouse, sag. s. of entire specimen for all structures

Metabolism Slide Set
15 slides


1 - Hydra, fresh water polyp, t.s. with ectoderm and entoderm
2 - Carabus, ground beetle, gizzard
3 - Salivary gland of cat, t.s.
4 - Oesophagus of cat, t.s.
5 - Fundic stomach of cat, t.s.
6 - Small intestine of cat, t.s. routine stained
7 - Small intestine of cat, t.s. blood vessels injected
8 - Appendix of human, t.s.
9 - Large intestine of cat, t.s.
10 - Liver of pig, t.s.
11 - Malpighian tubules of insect, t.s.
12 - Primordial kidney (mesonephros) of frog, t.s.
13 - Hind-kidney (metanephros) of rabbit, t.s.
14 - Kidney of mouse with pelvis, l.s.
Cat \#: JL-2ScMH - \$ 173.60 (Ex.GST)
15 - Kidney of mouse, t.s. injected with trypane blue (storage)


1 - Paramecium, silvered to show the neuroformative system
2 - Lumbricus, earthworm, t.s. with ventral nerve cord
3 - Insect brain, frontal l.s.
4 - Planaria, sec. through ocelli
5 - Haliotis, marine snail, pinhole camera eye 1.s.
6 - Helix, snail, eye l.s. lens, cornea, pigmented and visual cells
7 - Alloteuthis, cuttlefish, camera eye 1.s.
8 - Compound eye of insect, l.s.
9 - Young rat, head with eyes t.s. for general study
10 - Retina of cat, t.s. for finer detail of rods and cones
11 - Internal ear (cochlea) from guinea pig, l.s.
12 - Taste buds from tongue of rabbit, t.s.
13 - Peripheral nerve fibres of osmic acid fixed material showing Ranvier's nodes and medullary sheaths
14 - Spinal cord of cat t.s. showing large motor nerve cells
15 - Cerebellum of cat, t.s. routine stained
Cat \#: JL-3ScMH - \$ 196.04 (Ex.GST)

## Hormones, Organ and Function Slide Set

7 slides


1 - Ovary of cat, with follicles and corpus luteum t.s.
2 - Testis of mouse, t.s. showing Leydig's cells
3 - Adrenal (suprarenal) gland of cat, t.s. cortex and medulla
4 - Pancreas of cat, t.s. showing islets of Langerhans
5 - Thyroid gland showing normal function t.s.
6 - Thyroid gland showing over-activity of the gland t.s.
7 - Hypophysis (pituitary body) sagittal 1.s. with adeno- and neurohypophysis

Cat \#: JL-4ScMH - \$ 109.97 (Ex.GST)

Genetics, Reproduction and Embryology Slide Set
19 slides


1 - DNA and RNA stained in different colours, 1.s. onion root tips
2 - Lilium, young anthers, meiosis, early prophase stage, t.s.
3 - Lilium, young anthers, meiosis, diplotene stage, t.s.
4 - Lilium, ovary with embryosac t.s.
5 - Capsella bursa pastoris, 1.s. of embryos
6 - Human chromosomes, spread in the metaphase stage, w.m.
7 - Lamp brush chromosomes
8 - Hydra with testis t.s., sexual reproduction
9 - Hydra with ovaries t.s., sexual reproduction
10 - Tapeworm (Taenia), mature proglottid w.m.
11 - Ascaris embryology, sec. of uteri showing maturation of ova
12 - Cockchafer (Melolontha), ovaries t.s.
13 - Frog (Rana), testis t.s. showing spermatogenesis
14 - Frog (Rana) embryology: four cell stage t.s.
15 - Frog (Rana) embryology: morula stage 1.s.
16 - Frog (Rana) embryology: neurula stage t.s.
17 - Chicken (Gallus) embryology: 24 hour t.s.
18 - Chicken (Gallus) embryology: 72 hour t.s.
19 - Mouse, uterus containing embryo t.s.

## General Biology, Elementary Slide Set



## Zoology

1 - Amoeba proteus, w.m. showing nucleus and pseudopodia
2 - Hydra, w.m. extended specimen to show foot, body, mouth, and tentacles 3 - Lumbricus, earthworm, typical t.s. back of clitellum showing muscular wall, intestine, typhlosole, nephridia
4 - Daphnia and Cyclops, small crustaceans from fresh water
5 - Musca domestica, house fly, head and mouth parts (proboscis) w.m.
6 - Musca domestica, leg with clinging pads (pulvilli)
7 - Apis mellifica, honey bee, anterior and posterior wing

## Histology of Man and Mammals

8 - Squamous epithelium, isolated cells from human mouth
9 - Striated muscle, 1.s. showing nuclei and striations
10 - Compact bone, t.s. special stained for cells, lamellae, and canaliculi
11 - Human scalp, vertical section showing 1.s. of hair follicles, sebaceous glands, epidermis 12 - Human blood smear, stained for red and white corpuscles

## Botany, Bacteria and Cryptogams

13 - Bacteria from mouth, smear Gram stained showing bacilli, cocci, spirilli, spirochaetes 14 - Diatoms, strewn slide of mixed species
15 - Spirogyra, vegetative filaments with spiral chloroplasts
16 - Mucor or Rhizopus, mould, w.m. of mycelium and sporangia 17 - Moss stem with leaves w.m.

## Botany, Phanerogams

18 - Ranunculus, buttercup, typical dicot root t.s., central stele
19 - Zea mays, corn, monocot stem with scattered bundles t.s.
20 - Helianthus, sunflower, typical herbaceous dicot stem t.s.
21 - Syringa, lilac, leaf t.s. showing epidermis, palisade parenchyma, spongy parenchyma, vascular bundles
22 - Lilium, lily, anthers with pollen grains and pollen sacs t.s.
23 - Lilium, ovary t.s. showing arrangement of ovules
24 - Allium cepa, onion, w.m. of epidermis shows simple plant cells with cell walls, nuclei, and cytoplasm
25 - Allium cepa, l.s. of root tips showing cell divisions (mitosis) in all stages, carefully stained

## General Biology, Supplementary Slide Set

## 50 slides



1 - Paramaecium, nuclei stained
2 - Euglena, a common flagellate with eyespot
3 - Sycon, a marine sponge, t.s. of body
4 - Dicrocoelium lanceolatum, sheep liver fluke, w.m.
5 - Taenia saginata, tapeworm, proglottids of various ages t.s.
6 - Trichinella spiralis, l.s. of skeletal muscle showing encysted larvae
7 - Ascaris, roundworm, t.s. of female in region of gonads
8 - Araneus, spider, leg with comb w.m.
9 - Araneus, spider, spinneret w.m.
10 - Apis mellifica, honey bee, mouth parts of worker w.m.
11 - Apis mellifica, hind leg of worker with pollen basket w.m.
12 - Periplaneta, cockroach, chewing mouth parts w.m.
13 - Trachea from insect w.m.
14 - Spiracle from insect w.m.
15 - Apis mellifica, sting and poison sac w.m.
16 - Pieris, butterfly, portion of wing with scales w.m.
17 - Asterias rubens, starfish, arm (ray) t.s. showing tube feet, digestive gland, ampullae
18 - Fibrous connective tissue of mammal
19 - Hyaline cartilage of mammal, t.s.
20 - Adipose tissue, stained for fat
21 - Smooth (involuntary) muscle 1.s. and t.s.
22 - Medullated nerve fibres, teased preparation of osmic acid fixed material showing Ranvier's nodes
23 - Frog blood smear, showing nucleated red corpuscles
24 - Artery and vein of mammal, t.s.
25 - Liver of pig, t.s. showing well developed connective tissue
26 - Small intestine of cat, t.s. showing mucous membrane
27 - Lung of cat, t.s. showing alveoli, bronchial tubes
28 - Oscillatoria, a common blue green filamentous alga
29 - Spirogyra in scalariform conjugation, formation of zygotes
30 - Psalliota, mushroom, t.s. of pileus with basidia and spores
31 - Morchella, morel, t.s. of fruiting body with asci and spores
32 - Marchantia, liverwort, antheridial branch with antheridia 1.s.
33 - Marchantia, archegonial branch with archegonia 1.s.
34 - Pteridium, braken fern, rhizome with vascular bundles t.s.
35 - Aspidium, t.s. of leaf with sori showing sporangia and spores

## Botany, Phanerogams

36 - Elodea, waterweed, stem apex 1.s. showing meristematic tissue and leaf origin
37 - Dahlia, t.s. of tuber with inuline crystals
38 - Allium cepa, onion, w.m. of dry scale showing calcium oxalate crystals
39 - Pyrus, pear, t.s. of fruit showing stone cells
40 - Zea mays, corn, typical monocot root t.s.
41 - Tilia, lime, woody dicot root t.s.
42 - Solanum tuberosum, potato, t.s. of tuber with starch and cork cells
43 - Aristolochia, birthwort, one year stem t.s.
44 - Aristolochia, older stem t.s. shows secondary growth
45 - Cucurbita, pumpkin, l.s. of stem with sieve tubes, annular and reticulate vessels, sclerenchyme fibres
46 - Root tip and root hairs
47 - Tulipa, tulip, epidermis of leaf with stomata and guard cells w.m., surface view 48 - Iris, typical monocot isobilateral leaf, t.s.
49 - Sambucus, elderberry, stem showing lenticells and cork cambium, t.s.
50 - Triticum, wheat, grain (seed) sagittal 1.s. with embryo and endosperm


## Zoology and Parasitology

1 - Trypanosoma gambiense, causing sleeping disease, blood smear
2 - Plasmodium berghei, malaria parasite, blood smear
3 - Radiolaria, strewn slide of mixed species
4 - Foraminifera, strewn slide of mixed species
5 - Obelia hydroid, w.m. of colony with hydrants and gonothecae
6 - Hydra, t.s. of body in different levels. Ectoderm, entoderm
7 - Planaria, typical t.s. through the body
8 - Apis mellifica, honey bee, head with compound eyes and brain t.s.
9 - Apis mellifica, abdomen of worker t.s., with intestine and nephridia
10 - Ctenocephalus canis, dog flea, adult w.m.
11 - Dermanyssus gallinae, chicken mite, adult w.m.
12 - Helix pomatia, snail, hermaphrodite gland (ovotestis), t.s. with developing ova and spermatozoa
13 - Mya arenaria, clam, gills t.s. and 1.s. showing ciliated epithelium
14 - Branchiostoma lanceolatum (Amphioxus), typical t.s. of body with gills, liver, and gonads
15 - Bird feathers, w.m. of two types: wing or vane and down feathers

## Embryology

16 - Salamandra larva, sections from selected material showing mitotic stages in skin and other organs
17 - Chicken embryo, 48 hour, t.s. with neural tube and chorda

## Histology of Man and Mammals

18 - Ovary of cat, t.s. with primary, secondary, and Graafian follicles
19 - Testis of mouse, t.s. showing spermatogenesis in all stages
20 - Cerebellum of cat, t.s. shows Purkinje cells
21 - Spinal cord of cat, t.s. showing white and grey matter, nerve cells
22 - Kidney of cat, t.s. through cortex and medulla
23 - Retina of cat, t.s. for detail of rods and cones
24 - Tongue of rabbit, t.s. of papilla foliata with abundant taste buds

## Botany, Bacteria and Cryptogams

25 - Bacillus subtilis, hay bacillus, smear with bacilli and spores
26 - Streptococcus lactis, milk souring organisms, smear showing chains
27 - Volvox, with daughter colonies and sexual stages, w.m.
28 - Fucus vesiculosus, brown alga, female conceptacle with oogonia t.s.
29 - Fucus vesiculosus, male conceptacle with antheridia t.s.
30 - Cladophora, green alga, branched filaments with multinucleate cells
31 - Claviceps purpurea, ergot, sclerotium t.s.
32 - Puccinia graminis, wheat rust, uredinia on wheat leaf t.s.
33 - Puccinia graminis, aecidia and pycnidia on barberry leaf t.s.
34 - Saccharomyces, yeast, budding cells w.m.
35 - Physcia, foliose lichen, thallus with symbiotic algae t.s.
36 - Fern prothallium, w.m. showing sex organs
37 - Equisetum, horse tail, strobilus with spores 1.s.

## Botany, Phanerogams

38 - Lupinus, lupin, root nodules with symbiotic bacteria t.s.
39 - Euphorbia, spurge, stem with lactiferous ducts 1.s.
40 - Pinus, pine, three sections of wood: transverse, radial, tangential
41 - Tilia, lime, three sections of wood: transverse, radial, tangential
42 - Elodea, waterweed, aquatic stem with primitive bundle t.s.
43 - Cucurbita, pumpkin, stem t.s. showing bicollateral bundles and sieve plates
44 - Fagus, beech, sun and shade leaves, two t.s. for comparison
45 - Nerium, oleander, xerophytic leaf with sunken stomata, t.s.
46 - Pinus, pine, male cone with pollen 1.s.
47 - Pinus, female cone with ovules l.s.
48 - Pinus, mature pollen grains with wings w.m.
49 - Lilium, lily, t.s. of very young anthers showing meiotic stages of the pollen mother cells
Cat \#: JL-8ScMH - \$ 490.46 (Ex.GST)
50 - Taraxacum, dandelion, composite flower 1.s.


## Histology of Man and Mammals

1 - Ciliated epithelium, in t.s. of fallopian tube of pig
2 - Tendon of cow, l.s. showing white fibrous tissue, stained for fibres and cells
3 - Heart muscle, human, t.s. and 1.s., branched fibres with central nuclei and intercalated discs
4 - Lymph gland of pig, t.s. showing lymphoid tissue
5 - Oesophagus of cat, t.s. with stratified squamous epithelium, muscular layers
6 - Stomach of cat, t.s. through fundic region showing gastric glands
7 - Large intestine (colon), t.s. special stained for the mucous cells
8 - Pancreas of pig, sec. showing islets of Langerhans
9 - Thyroid gland of pig, sec. showing glandular epithelium and colloid
10 - Adrenal gland of cat, t.s. through cortex and medulla
11 - Sperm of bull (spermatozoa), smear
12 - Motor nerve cells, smear from spinal cord of cow showing w.m. of motor nerve cells and their processes

13 - Cerebrum, human, t.s. of cortex showing pyramidal cells and fibrous region
14 - Human skin from palm, v.s. showing cornified epidermis, germinative zone, sweat glands

## Zoology

15 - Distomum hepaticum (Fasciola), the beef liver fluke, w.m. and stained for general study of internal organs
16-Taenia spec., tapeworm, w.m. of mature proglottids
17 - Culex pipiens, mosquito, head and piercing-sucking mouth parts of female, w.m.
18 - Culex pipiens, mosquito, head and reduced mouth parts of male, w.m.
19-Cimex lectularius, bed bug, w.m. of adult specimen

## Cytology and Genetics

20 - Mitochondria, in thin sec. through liver or kidney, special staining technique
21 - Golgi apparatus, t.s. through spinal ganglion, special staining technique
22 - Chloroplasts, in leaf of Elodea or Mnium, special stained
23 - Aleurone grains, in sec. of Ricinus endosperm
24 - Storage, section of liver or kidney, vital stained with trypan-blue to demonstrate storage in epithelial cells
25 - DNA in cell nuclei, demonstrated by Feulgen staining technique
26 - DNA and RNA, fixed and stained with methyl green and pyronine to show DNA and RNA in different colours
27 - Giant chromosomes from the salivary gland of Chironomus. Individual genes and puffs can be observed
28 - Human chromosomes, spread in the stage of metaphase, for counting chromosomes
29 - Meiotic and mitotic stages in sec. of crayfish testis. Nuclear spindles are present

30 - Maturation divisions in ova of Ascaris megalocephala, different stages iron-hematoxylin stained
31 - Cleavage stages in ova of Ascaris megalocephala, iron- hematoxylin stained

## Bacteria and Diseased Organs of Man

32 - Escherichia coli, bacteria from colon, probably pathogenic, smear Gram stained
33 - Eberthella typhi, causing typhoid fever, smear from culture, Gram stained
34 - Tuberculous lung, t.s. of diseased human lung showing miliary tubercles in tissue
35 - Coal dust lung (Anthracosis pulmonum), t.s. of human smoker's lung
36 - Liver cirrhosis of man caused by alcohol abuse, t.s. showing degeneration of liver cells
37 - Arteriosclerosis, t.s. of diseased human coronary artery showing sclerotic changes in the arterial wall
38 - Metastatic carcinoma (cancer) of human liver, t.s.

## Embryology

39 - Sea-urchin development (Psammechinus miliaris), composite slide with two cell, four cell and eight cell stages
40 - Sea-urchin development (Psammechinus miliaris), composite slide with morula, blastula and gastrula stages
41 - Frog embryology (Rana spec.), sec. trough the blastula stage showing the blastocoel
42 - Frog embryology (Rana spec.), sag. sec. through young larva in the tail bud stage, with primordia of organs

## Ecology and Environment

43 - Leaf (needle) of fir (Abies), two t.s. of leaves, healthy and damaged by environmental influences (acid rain) 44 - Leaf of beech (Fagus), two t.s. of leaves, healthy and damaged by environmental influences (acid rain)
45 - Bacteria from waste-water, smear with many typical forms

## Botany

46 - Nostoc, blue green alga, filamentous colonies within gelatinous sheaths
47 - Desmids (Desmidiaceae), strewn slide of various species 48 - Sphagnum, peat moss, w.m. of leaf showing chlorophyllbearing and hyaline cells
49 - Triticum, wheat, t.s. of stem of a gramineous plant with central pith and circular arrangement of bundles 50 - Salvia, sage, t.s. of a square stem with angular collenchyma

Cat \#: JL-9ScMH - \$ 559.95 (Ex.GST)

## Textile Fibres and Fabrics Slide Set 25 slides



Cat \#: JL-4MMH - \$ 246.18 (Ex.GST)

1- Angora wool
2 - Camel-hair
3 - Merino wool
4 - Mohair
5 - European wool
6 - Australian wool
7 - Cocoon silk, raw
8 - Organsin silk
9 - Tussah silk
10 - Egyptian cotton
11 - Mercerized cotton
12 - Linen (flax)
13 - Jute
14 - Italian hemp
15 - Ramie
16 - Cellulose

Types of Paper Slide Set 25 slides


1 - Bank paper
2 - Book paper, wood-free
3 - Mould-made paper, 100 percent rag
4 - Chromo paper containing wood pulp
5 - Esparto paper
6 - Filter paper
7 - India paper
8 - Rough-surface paper containing sawdust
9 - Kraft paper, brown

17 - Cuprama rayon
18 - Casein fibre
19 - PVC fibre
20 - Acetate rayon
21 - Viscose rayon
22 - Bemberg rayon
23 - Perlon
24 - Gauze
25 - Nylon fabric

10 - Art paper
11 - Copper plate printing paper
12 - Blotting paper
13 - Standard paper No. 3, rag/pulp
14 - Grease-proof paper
15 - Sulphate kraft paper
16 - Stencil raw silk, 100 percent manila
17 - Wrapping paper
18 - Counterfeit-proof check paper
19 - Sulphite wrapping paper
20 - Book printing paper, wood-free
21 - Newsprint
22 - Wood pulp paper
23 - Cigarette paper
24 - Straw board
25 - Wood pulp board

## Human Scalp and Hair Slide Set

12 slides


Cat \#: JL-10MMH - \$ 137.41 (Ex.GST)

1 - Human scalp, vertical sec. shows 1.s. of hair follicles
2 - Human scalp, horizontal sec. shows t.s. of hair follicles
3 - Natural blond and black hair
4 - Greyed hair
5 - Eyelash
6 - Hair of beard
7 - Hair from infant
8 - Artificially bleached hair
9 - Split hair tips
10 - Singed hair
11 - Eggs of louse attached to the hair, w.m.
12 - Human head louse (Pediculus capitis), w.m.

