

## BOTANY 2

Slide name and description

Bacteria type slide coccus,bacillus & spirillum
Bacillus subtilis
Rhizobium meliloti,nitrogen fixing in root of legume
Spirillum volutans,large spirillum
Staphylococcus
Oscillatoria
Nostoc
Euglena
Chlamydomonas
Protococcus
Ulothrix
Cladophora
Oedogonium
Spirogyra,one chloroplast in each cell
Spirogyra,several chloroplasts in each cell
Spirogyra,conjugation,several stages
Diatoms
Laminaria japonica,sec.of sori
Rhizopus,bread mold,development of sporangia
Penicillium,sec,showing conidia on broom-like conidiophores w.m
Aspergillus,conidia on spherical conidiophores w.m.
Saccharomyces,yeast w.m.showing nucleus & budding
Peziza,cup-fungus,sec.of apothecium with asci
Ustilago tritici,loose smut of wheat
Ustilago zae,com smut,sec of pustule showing development of chlamydospores
Coprinus,sec.showing basidia & spores
Lichen,sec.of vegetative portion of thallus
Lichen,sec.of apothecium
Marchantia polymorpha,sec.of thallus
Marchantia,sec.of cupule with gemmae
Marchantia,gemmae w.m.(vegetative reproduction)
Marchantia,sec.of archegonial branch showing archegonia
Marchantia,sec.of antheridial branch showing archegonia
Marchantia,sec.of mature sporophyte
Moss,L.S of antheridial cluster with antheridia
Moss,L.S of archegonial head with archegonia
Moss,protonema w.m.

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Moss, sporophyte attached to the gametophyte w.m.
Fem, sec. of leaf with sporangia
Fem, X.S. of rhizome
Salvinia, floating fern, L.S. of sporocarps
Fern prothallium w.m. of young specimen showing antheridia only
Fern prothallium w.m. of young specimen showing archegonia only
Fern prothallium typical specimen showing both antheridia & archegonia w.m.
Fem prothallium, w.m. young sporophyte
Ginkgo, X.S. of leaf & petiole
Pinus, X.S. of leaf
Pinus, first year stem X.S.
Pinus, mature wood X.S.
Pinus, mature wood rad sec
Pinus, mature wood tang. sec.
Pinus, macerated wood tracheids & other cells isolated
Pinus, cec. Of? young male strobilus showing meiosis
Pinus, median L.S. of male strobilus with axis, microsporophylls & microsporangiums
Pinus, X.S. of male strobilus with microspores
Pinus, w.m. of mature pollen grains
Pinus, L.S. of young female cone showing bracts & ovuliferous scales bearing ovules
Daucus, carota, X.S. of fleshy tap root
Helianthus, sunflower X.S. of mature root
Cuscuta, dodder, on host X.S. showing haustorium
Ranunculus, X.S. of young root showing protoxylem & protophloem
Ranunculus, X.S. of mature root showing metaxylem & radial bundle type
Vicia, L.S. of root-tip for mitosis
Vicia faba, kidney bean, L.S. of young root tip showing root cap
Vicia faba, X.S. of young root showing root hair
Vicia, X.S. of older root
Vicia faba, X.S. of root showing development of lateral roots
Ipomoea, sweet potato, X.S. of fleshy root showing food storage
Allium, onion, L.S. of root-tips showing every stage in cell division & mitosis
Allium, root-tip X.S. at several different levels
Orchid, X.S. of aerial root
Zea mays, com. L.S. of root tip showing root cap etc.
Zea mays, com. L.S. of root. polyarch arrangement
Rice, X.S. of root showing aerenchyma

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Triticum,wheat,X.S. of root
Cuscuta,pumpkin.X.S. of stem,best type for study of phloem,showing sieve plates etc.
Cuscuta,L.S. of stem,showing sieve tubes etc.
Helianthus. Sunflower stem X.S. showing typical dicot stem
Helianthus,sunflower stem.L.S.
Pelargonium,geranium,X.S. of young stem
Pelargonium.X.S. of old stem showing secondary vascular tissue & cork
Cotton,stem X.S.
Ricinus,caster bean,X.S. of stem showing typical vascular structure
Buxus L.S. of stem tip showing meristematic tissue
Nymphaea,water lily,X.S.of aquatic stem showing air chamber
Nymphaea,water lily,X.S. of aquatic stem showing reduced vascular tissue & spicular cells
Solanum,Irish potato,X.S. of mature tuber stained for starch grains
Tilia,basswood,X.S. of 1st year stem
Tilia,X.S. of 2 year stem
Tilia,X.S. of 3-year stem
Tilia,X.S. of older stem(4 or 5 years)showing mature structure with annual rings
Tilia.L.S. of older stem(4 or 5 years)
Tilia,macerated wood,showing individual wood fibers
Salix,willow.X.S. of stem
Nerium stem X.S.
Sambucus,elder,sec.of bark with lenticel
Zea mays,com,X.S.of stem showing typical monocot stem
Zea,stem L.S.
Zea X.S.of young stem enclosed in sheath,leaves
Rice X.S. of stem
Triticum,wheat,X.S. of stem showing few scattered bundles
Leaf bud L.S.showing leaf development
Pittosporum,X.S.of a typical dicot leaf
Cotton,leaf X.S.
Vicia,dicot leaf, w.m.of epidermis showing stomata
Nerium leaf X.S.showing sunken stomata pits cuticle etc.
Nicotiana,tobacco X.S.of leaf with glandular hairs
Pelargonium,geranium,X.S.of leaf showing cystolith in a xerophyte
Ficus,rubber plant,X.S.of leaf showing cystolith in a xerophyte
Nymphaea,water lily,X.S.of floating leaf showing spongy tissue, air chambers & spicular cells

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Allium, onion, w.m. of epidermis showing cells & nuclei
Liris, w.m. of epidermis showing stomata
Lilium, X.S. of a typical monocot leaf
Zea mays, com, X.S. of leaf showing separate bundles
Triticum, wheat, X.S. of leaf (grass type)
Rice, X.S. of leaf
Capsella, sec. of developing flower spike showing various stages in the development of the floral parts
Lilium, X.S. of typical monocot flower
Pollen types w.m. of a great variety of pollens, mixed
Pollen tubes w.m. of germinated pollen
Zea mays, corn, L.S. of kernel through embryo
Triticum, wheat, L.S. of endosperm showing stored food
Ricinus, castor bean, X.S. of endosperm showing stored food
Diospyros, endosperm section showing plasmodesma
Capsella, L.S. of ovule with embryo at early stage showing origin of perisperm, perisperm & dermatogen
Capsella, L.S. of embryo with cotyledons just differentiating
Capsella, L.S. of embryo with young cotyledons
Capsella, L.S. of mature embryo with cotyledons
Lilium, X.S. of anther showing pollen grains
Lilium, L.S. of anther showing pollen chambers/grains
Lilium, X.S. of very young anther showing early sporogenous tissue
Lilium, X.S. of young anther showing microspore mother cells
Lilium, X.S. of anther with microspore mother cells in prophase
Lilium, anther sec. showing 1st division (heterotypic) in microspore mother cells
Lilium anther sec. showing second division (homeotypic)
Lilium sec. of anther showing tetrads
Lilium sec. of anther showing pollen grains at time of shedding (2-cell stage)
Lilium, w.m. of mature pollen
Lilium, L.S. of style & stigma, showing pollen grains
Lilium, X.S. of ovary showing general structure & arrangement of ovules
Lilium, X.S. of young ovary showing ovules with megaspore mother cells (uninuclear embryo sac).
Lilium, X.S. of ovary, ovules showing first division of megaspore mother cell. heterotypic division
Lilium, X.S. of ovary, ovules showing binucleate embryo sac.
Capsella, L.S. of embryo with cotyledons just differentiating