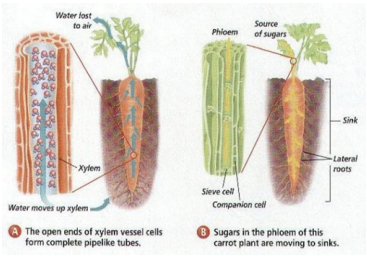
Classification of Plants

Vascular plants

- Largest group in the plant kingdom
- Have true roots, stems and leaves
- Bigger than nonvascular plants
- Xylem- carries water from roots to leaves
- Phloem- carries glucose from leaves to the rest of the plant
- can reproduce with seeds or spores



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What are nonvascular plants?

- lack vascular tissue- cannot transport water throughout the plant
- grow low to the ground
- do not have roots
- absorb nutrients
- live in damp, dark places
- have very thin cell walls

Importance of nonvasculars

- prevent erosion on forest floor
- foundation for forest floor

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Moss

- tiny leaf-like structures grow out of a stem-like structure
- Rhizoids (thin root like structure) anchor plant in ground and absorb nutrients
- Spores are in sporophyte which grow out of stem like structure
- Important because....
  - used in agriculture and gardening
  - used as fuel to heat homes and cook food (peat moss)

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Liverworts

- found growing as a thick crust on moist rocks or soil along sides of a stream
- named for its shape resembling a human liver

Hornworts

- usually live in moist soil, mixed in with grass plants
- have horn like structure

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Spore producing	• produce spores for reproduction • spores are smaller than a seed • almost all flowerless plants produce spores • examples - moss, liverworts, hornworts, ferns
Seed producing	• reproduces through seed • make their own seeds • new plants grow from seeds 2 types - Gymnosperms- evergreen trees - Angiosperms- flowers, fruits and veggies

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Gymnosperms

- cone bearing plants
- largest group of seed producing plants
- most are evergreen plants
- never have flowers
- needle like leaves
- naked seeds- not protective covering
- examples: cycads, conifers, ginkgoes, gnetophytes

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Angiosperms

- can produce flowers or fruit
- grow their seeds inside an ovary
  -ovary-reproductive part inside flower
- flower becomes a fruit containing seeds
- food is stored in one or two seed leaves called cotyledons

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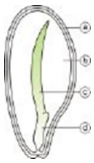
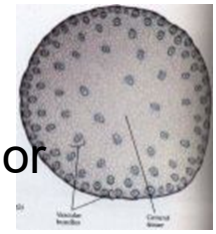
Monocots





- seed leaves with one food storage area
- flowers have 3 petals or petals in multiples of 3
- leaves are long and slender with veins that are parallel
- vascular tubes are scattered randomly throughout the stem
- examples: grass, lily, daisy, corn, rice and tulip

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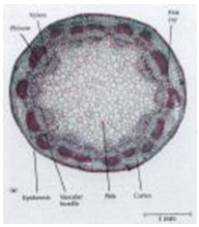
Dicots



- seed leaves with two food storage areas
- flowers have 4 or 5 petals or petals in multiples of 4s or 5s
- leaves are wide with branching veins
- vascular tubes are in a circle in the stem
- examples: roses, dandelions, maple trees and oak trees

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