



- 1) Label bryophytes, seedless vascular plants, and seed plants
- 2) Where should each of these traits be added to the tree? For the ones marked in bold, what advantage do they provide?

- Phragmoplast
- Walled spores** produced in sporangia
- Multicellular gametangia
- Cellulose
- Double fertilization
- Chloroplasts with chlorophyll *a* and *b*
- Seeds**
- Independent and usually dominant sporophyte
- Roots**
- Leaves**
- Heterospory
- Ovules
- Sporopollenin**
- Alternation of generations
- Multicellular embryos dependent on parent**
- Pollen**
- Flowers**
- Fruits**
- Apical meristems
- Vascular tissues (xylem and phloem)**
- Lignin**
- Sporophylls
- Microscopic gametophytes dependent on sporophyte**
- Reduced, independent gametophytes
- Photosynthesis**
- Flagellated sperm
- Apical meristems