CONCEPT: SEEDLESS VASCULAR PLANTS

- Seedless vascular plants have a sporophyte-dominant life cycle, are mostly homosporous, and reproduce through spores
  - □ Gametophytes are small, but not microscopic like those of seed plants
  - □ Water is required for sperm to reach the egg, limiting the types of environments in which these plants can survive
  - □ ***Tracheophytes*** – plants possessing vascular tissue reinforced with lignin
    - Lycophytes – only vascular plants to have microphylls, club mosses, spike mosses, and quilworts
    - Monilophytes – ferns and horsetails
  - □ Responsible for removal of lots of CO_2 from the atmosphere, leading to formation of glaciers and coal
- Fern sporophylls produce ***sori***, clusters of sporangia on the underside of their leaves
  - □ Gametophyte contains antheridium, archegonium, and rhizoids
    - When water is present, sperm will swim to archegonium producing an embryo for the new sporophyte

EXAMPLE: