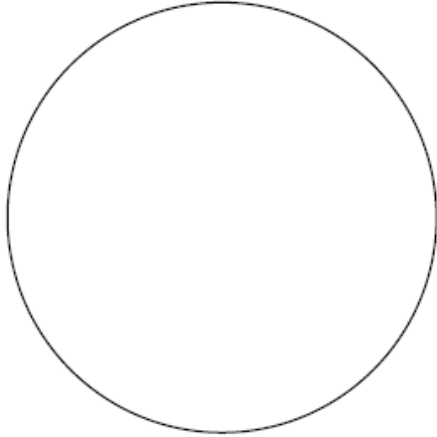




Bryophytes

1. Collect a moss plant. Spread the moss plant out on the table to observe its structure. The leaflike parts above ground are not really leaves. With tweezers, remove one from the plant and place it on a slide in a drop of water. cover it with a cover slip. Examine it under low power and make a drawing.



2. The rootlike fibers that grow underground on a moss plant are called rhizoids. → They are not true roots. **Label** the leaf like parts and the rhizoids on the drawing of the moss plant.



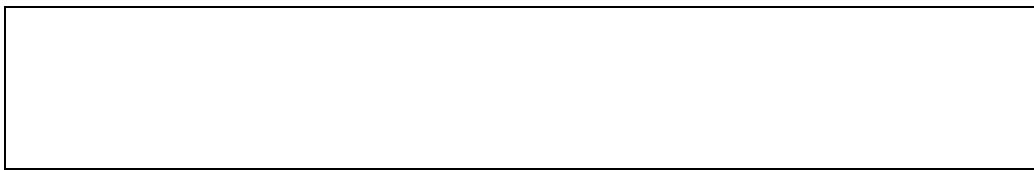
3. How many layers of cells were in the moss leaflet? _____

4. Why is the moss leaflet so thin?

5. From on Campus collect the following. Collect only what you need without disrupting landscaped horticulture. A fern, A pine cone, A group of pine leaves, 2 monocot weeds (leaves, root, stem and flowers attached), 2 dicot plants (leaves, root, stem and flowers attached). **On an attached sheet of paper**, sketch and label each of the above items that you collected.

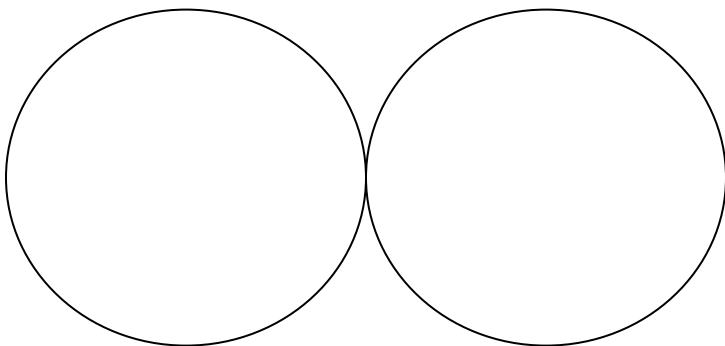
Gymnosperms

6. In the space provided, make a rubbing of a gymnosperm leaf and seed scale.

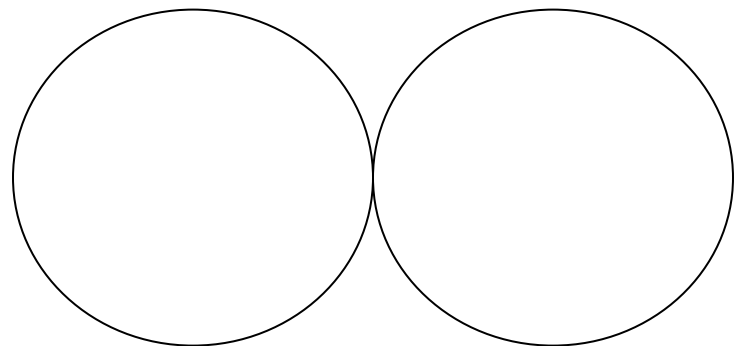


Tracheophytes

7. In the space provided, make a rubbing of the monocot and dicot leaves. **Label** both parallel and netted veins.



Monocot Leaves



Dicot leaves

What are some traits of vascular plants? Describe them in the chart below.

Data and Observations:

	Fern	Conifer	Flowering plant
Leaf shape			
Leaf color			
Leaf length			
Stem shape			
Stem color			
Presence of tubelike parts in stem or leaf			
Method of reproduction			

Questions:

1. Which plant has the smallest leaves? _____

2. How are leaves of the ferns and flowering plants alike? _____

3. How are the leaves of conifers different from those of ferns and flowering plants?

4. How are the reproductive parts of ferns different from conifers and flowering plants?

5. How are stems of ferns different from those of conifers?

6. In what way do you think all of the stems and leaves you observed are alike?

7. What areas of each plant could carry on photosynthesis? _____

8. How are the seeds of conifers different from those of flowering plants?

Conclusion: What are four (4) traits of vascular plants?

Matching

- | | | | | | |
|---------|--------------------------------------|---------------|---|---------------|--|
| A. fern | B. algae | C. gymnosperm | D. moss | E. angiosperm | F. vascular tissue |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | 1. Nonvascular plant with rhizoid | _____ | 4. Vascular plant with seeds within fruit | _____ | 5. Mosses are small because they lack ____ |
| _____ | 2. Vascular plant with no seed | _____ | _____ | _____ | _____ |
| _____ | 3. Vascular plant with exposed seeds | _____ | _____ | _____ | _____ |