**General Biology II Lab**

**Exercise 4 – Nonvascular and Seedless Vascular Plants Name:**

**Before you leave the lab:**

1. Draw the alternation of generations (Figure 4-1).
2. What does the gametophyte generation produce? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. What does the sporophyte generation produce? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Nonvascular Plants

1. Have you looked at the nonvascular plant specimens on the lab benches? \_\_\_\_\_\_
2. In the nonvascular plants, is the gametophyte or sporophyte generation dominant? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Why do nonvascular plants have to remain relatively small?
4. What are nonvascular plants collectively called? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. What plants are found in this group?
6. http://image1.masterfile.com/em_w/04/35/33/400-04353365w.jpg *Mnium* (Moss) antheridia and archegonia Slide# \_\_\_\_\_\_\_, \_\_\_\_\_\_ (compare to Figure 4-2)
7. Observe the liverwort under the dissecting scope on the lab bench to identify the gemma cup. This demonstrates asexual reproduction.

Seedless Vascular Plants

1. What does it mean to have vascular tissue?
2. What are microphylls? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Is the gametophyte or sporophyte generation dominant in seedless vascular plants? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Have you looked at the seedless vascular plant specimens on the lab bench? \_\_\_\_\_\_\_\_\_
5. http://image1.masterfile.com/em_w/04/35/33/400-04353365w.jpg Fern prothallus (gametophyte) Slide # \_\_\_\_\_\_\_ Compare to Figure 4-4
6. http://image1.masterfile.com/em_w/04/35/33/400-04353365w.jpg Fern sorus (on the sporophyte) Slide # \_\_\_\_\_\_\_ Compare to Figure 4-4