

Make dissections of specimens from four different plant families. Document your work with images (select at least 3 vegetative and 3 reproductive characters from each specimen and take photos):

**Fabaceae (legume family): Big-leaved Lupine** *Lupinus polyphyllus*

Habitat: open areas such as fields, slopes, along the road and other disturbed areas; doesn't seem to require rich soil but grows tallest when it has plenty of sun and some moisture.

Inflorescence is an upright stalk (raceme) which is a few inches above the first leaves which are petiolate and palmately compound with over ten leaflets each.

Fruits are dehiscent pods, hairy on the outside with over half a dozen seeds.

10 stamens: 5 with long filaments, 5 with shorter filaments

5 purple or blue petals, fused into two connate petals and one unique petal that arcs over the stamens (how do the pollinators get inside?)

2 sepals

carpel, marginal placentation (attached on outer edge)

**Onagraceae (evening primrose family): Fireweed** *Chamaenerion angustifolium*

Habitat: open areas, especially disturbed areas after glaciation or fire

Inflorescence: upright spike (raceme)

Leaves are linear with a prominent central vein and indistinct secondary veins that are connected with each other toward the distal margin; petiole is greatly reduced

Fruits are dehiscent capsules with seeds too many to count; released with fuzz on them

8 stamens

4 bright pink petals

4 darker pink (magenta) sepals,

1 carpel, axillary placentation (attached at central column)

**Rosaceae (rose family): Thimbleberry** *Rubus parviflorus*

Habitat: Roadside, upland of beaches and lakes

Inflorescence: single flowers in a loose cluster at end of a stem

Leaves are palmately lobed and soft to the touch

Fruits are aggregate

5 white petals

5 green and rusty red sepals: stamens appear fused to sepals so adnation?

Dozens of stamens which encircle dozens of carpels

Indehiscent

Placentation: ?

Number of seeds: ?

**Campanulaceae (harebell family): Harebell** *Campanula rotundifolia*

Habitat: uplands of beach in full sun, rocky soil

Inflorescence: single violet or periwinkle flowers, connation in petals

Leaves: narrow, linear, single main vein

Fruits: not evident yet but is said to be a "nodding capsule." (Love that!)

5 sepals

5 stamens

appears to be a single carpel, but I am not sure

seeds are not yet evident, nor is placentation