

Botany 1

1. Students will be able to care for a variety of plant species
 1. Students will be able to explain the impact of aspect on a plant, especially with regards to its evolutionary history
 2. Students will understand and be able to carry out basic pruning of woody plants, and the role of pruning in fruit production, ornamental grasses, etc.
 3. Students will be able to start seeds, and understand factors that impact germination such as: stratification, nutritional differences of seed starting, temperature
 4. Students will be able to identify watering needs of plants in their local environment
 5. Students will investigate local watering practices

2. Students will be able to identify the major parts of a plant and how they function: Using their understanding of plant anatomy, students will be able to identify the major characteristics of the most common plant families in the valley.
 1. Students will be able to identify the parts of a flower
 2. Students will be able to identify the parts of a fruit
 3. Students will be able to name a fruit according to the type of fruit it is
 4. Students will be able to identify a plant as monoecious or dioecious
 5. Students will be able to name the types of leaf arrangements, margins, and venation
 6. Students will be able to identify the basic parts of the stems and roots, and the various strategies used by plants to maximize their growth habits
 7. Students will be able to identify by key description the most common plant families in the area

3. Students will be able to diagnose common problems experienced by plants
 1. Students will be able to list common problems for common plants in their area
 2. Students will be able to identify a problem being experienced by a grass, tree, or herbaceous plant
 3. Students will build a systematic approach for appropriately diagnosing a plant
 4. Students will gain experience in recommending a course of action for treatment

4. Students will be able to design a basic garden bed that adheres to the basics of design, as well as plant needs
 1. Students will be able to discuss clearly their reasoning for disliking or liking various garden designs, using the vocabulary of design (line, color, repetition, shape, etc.)
 2. Students will be able to design a garden bed using the principles of design
 3. Students will be able to design a garden bed accounting for plant needs.