Reavis High School
Horticulture Curriculum Snapshot

Unit 1: Significance of Horticulture to Humans

15 days

Horticulture is the study of growing plants for food, comfort and beauty. Students will explore the relationship of horticulture to science and technology, with a particular focus on the interaction of horticulture and the environment. Additionally, students will evaluate the positive and negative influences horticultural practices have on our natural resources.

Unit 2: Careers in Horticulture

10 days

The horticulture field offers a wide variety of rewarding job opportunities. Students will investigate and report on various careers in horticulture. Relevant topics include required training, expected salary, typical daily workload and opportunities for advancement. Throughout the school year, several professional guest speakers will present and answer questions about their career in class.

Unit 3: Plant Classification and Anatomy

30 days

Distinguishing among plant species and knowing how their parts function helps us understand how to best utilize plants to meet our needs. Students will differentiate plants by physical characteristics and life cycles. Particular attention will be given to the anatomy and functions of roots, stems, leaves and flowers. Activities will strengthen student skills in identifying and classifying plants in both the greenhouse and in the garden.

Unit 4: Influences on Plant Growth

25 days

Attaining proper growth rates increase the efficiency of how we use of plants for food and beauty. This unit will explore how environmental factors affect the rate of plant growth. Students will investigate the effects of different types of growing media (including soils and soilless mixes), nutrients required for growth, and how soil and moisture are related. Each student will complete a plant care project.

Unit 5: Plant Reproduction

20 days

In this unit, students will evaluate methods of plant propagation, the various ways by which plants create new plants. Reproductive methods will include seed germination, transplanting, leaf and stem cuttings, division and layering. Students will perform various reproduction labs in the classroom and greenhouse.

Unit 6: Soil and Irrigation

15 days

Two major factors connect plants to the Earth: soil and water. In this unit, students will investigate the creation and destruction rates of the Earth's soil by developing timelines and using mathematical data. Factors determining what makes a "good" soil will be explored through a soil analysis, moisture content labs and water conversation research.

Unit 7: Plant Nutrition

20 days

All plants require certain nutrients to attain optimal health. In this unit, students will discover the roles that the three macronutrients (nitrogen, phosphorus and potassium) play in the development of plants. The effects of fertilizer, organic matter and growth regulators will be explored. Students will also evaluate the advantages and problems of soilless mixes. Through activities, students will interpret fertilizer labels and develop plans of action for nutrient deficient plants.

Unit 8: Pathogens and Pests

20 days

Healthy plants can become hosts for many pests including insects, fungi and wildlife. In this unit, students will explore common pests and diseases, treatment plans, and the effects of pesticide chemicals on the environment. Activities will include diagnosing and predicting the best treatment for a variety of infested plants.