



## School District of Horicon Course Outline Learning Targets

<b>Horticulture</b>
<b>UNIT: Soils and Gardening</b>
<ul style="list-style-type: none"> <li>● Describe the difference between clay, sandy, and loamy soils and identify a sample of each.</li> <li>● Explain three ways to improve soil drainage and two ways to increase moisture retention of soil.</li> <li>● List four items to consider when choosing the location of a vegetable garden.</li> <li>● Draw to scale a garden plan that includes at least four vegetables. Also include plans for successive plantings of two vegetables that are planted early and harvested early and two vegetables that are planted after earlier crops and harvested in the fall.</li> </ul>
<b>UNIT: Soil Chemistry</b>
<ul style="list-style-type: none"> <li>● Explain what is meant by the pH value of soil.</li> <li>● Take a soil sample and test it.</li> </ul>
<b>UNIT: Nutrient Cycling</b>
<ul style="list-style-type: none"> <li>● Compose a balanced fertilizer program for one plant that is grown commercially in the area.</li> <li>● List the three major plant food elements and two functions of each.</li> <li>● Write a fertilizer program for your garden based on your soil type and test results.</li> </ul>
<b>UNIT: Seed Germination</b>
<ul style="list-style-type: none"> <li>● Propagate at least one plant using seed.</li> <li>● Identify parts of a seed and the functions of each.</li> <li>● Differentiate between indirect and direct seeding methods.</li> <li>● Prepare a medium for seeds, sow seeds, and provide the proper conditions for germination.</li> <li>● Water, fertilize, and harden off seedlings before transplanting.</li> <li>● Transplant seedlings into flats or pots.</li> </ul>
<b>UNIT: Botany</b>
<ul style="list-style-type: none"> <li>● To recognize the main parts of a plant and describe the function of each.</li> <li>● Note two contributions of plants to the life cycle on earth.</li> </ul>
<b>UNIT: Roots</b>
<ul style="list-style-type: none"> <li>● List and describe the purpose of the roots.</li> <li>● List four factors that affect the roots of plants.</li> </ul>

- Explain the major structural difference between dicot and monocots and how they grow.

#### **UNIT: Stems**

- List and describe the purpose of the stems.
- Explain the major structural difference between dicot and monocots and how they grow.

#### **UNIT: Leaves and Flowers**

- List and describe the purpose of the leaves and flowers.
- Explain the process of photosynthesis.
- Describe the process of pollination.
- Explain the process of respiration.

#### **UNIT: Temperature**

- Explain the basic needs of plants and the various factors that make up their environment.

#### **UNIT: Water**

- Explain the basic needs of plants and the various factors that make up their environment.

#### **UNIT: Light**

- Explain the basic needs of plants and the various factors that make up their environment.

#### **UNIT: Pest Management**

- Explain orally or in writing what biological control means.
- Explain orally or in writing what integrated pest management means.
- Outline a pest control program, explaining when biological control should be used and at what point chemicals must be used.
- List at least one plant disease controlled by biological means.
- List at least one weed and the biological method used to control it.

*Students will be able to meet the learning targets above as evidenced by formative and summative classroom assessments.*