

Unit # - 5 – Botany (4 weeks)

Standards Addressed	Student Learning Objectives For this Unit	Content Skills and Knowledge	Learning Activities and Instructional Strategies
	<p>Students will be able to:</p> <p>In this Introduction to Plants</p> <ul style="list-style-type: none"> ▪ Identify four characteristics that all plants share ▪ Describe the four main groups of plants ▪ Explain the origin of plants ▪ List three nonvascular plants and three seedless vascular plants ▪ Explain how seedless plants are important to the environment and their relationship to coal ▪ Describe three ways that seed and seedless plants differ ▪ Describe the structure of seeds ▪ Compare angiosperms and gymnosperms and their economic and environmental significance ▪ List three functions of roots and stems ▪ Identify the parts of a flower and their functions <p>In Plant Processes</p> <ul style="list-style-type: none"> ▪ On a conceptual level, describe and compare photosynthesis and cellular respiration ▪ Explain how gas is exchanged in the leaves of plants ▪ Describe two ways in which photosynthesis is important ▪ Describe pollination and fertilization in flowering plants ▪ Explain how fruits and seeds are formed from flowers ▪ Describe how plants respond to the following factors: <ul style="list-style-type: none"> ○ Light and gravity ○ Night length ○ Changes of season 	<p>Knowledge:</p> <ul style="list-style-type: none"> ▪ Vascular and non-vascular, angiosperm and gymnosperm ▪ Rhizoid and rhizome ▪ Pollen and pollination ▪ Xylem, phloem, sepal, petal, stamen, pistil, and ovary ▪ Photosynthesis, chlorophyll, cell respiration, stoma, and transpiration ▪ Dormant ▪ Tropism <p>Skills:</p> <ul style="list-style-type: none"> ▪ Explain the many variables that affect plant growth. ▪ Use tools and techniques to determine soil quality ▪ 	<p>Lab or Demonstration: Moss Mass (Quick Lab) Dissecting Seeds (QuickLab) Traveling Seeds Build a Flower</p> <p>Reading: Directed Reading (H)</p> <p>Worksheet: Vocabulary and Section Summary</p> <p>Technology: Plants: From Revise http://www.bbc.co.uk/schools/revisewise/science/living/06_act.shtml</p>