

**Argenta-Oreana High School
Botany**

Date Semester	IL Learning Standards	Unit and/or Essential Question Content and/or Skills	Assessments and/or Products
1 st 9—weeks	12.A.5a 12.A.5c 13.B.4b	Introduction to plant science Classification of plants <ul style="list-style-type: none"> • Overview of the 5 kingdoms—ch. 17, 18 & 19 • Plant biology—ch. 1 (p 2—6, 8—1) • Plant names and classification—ch 16 (p 255—263) • Using a dichotomous key for local trees <ol style="list-style-type: none"> a. morphology (leaf arrangement and type) b. Identification of trees by the leaf c. Leaf collection instructions • Learn local “weeds” • Guest speaker—John Rainey; how botany is used in his landscaping business 	Packets given by topic to be done and handed in Quizzes Tests Identification and genus test of all local trees Leaf collection properly mounted and labeled Research on adopted “weeds” ; report to class
	11.A.5.a 11.A.4.b 11.A.4.c 12.A.4b	The Angiosperms (the flowering plant) <ul style="list-style-type: none"> • Plant tissue Ch.4 • Plant propagation Ch. 14 • Flowers ch 8 (p. 121—125) <ol style="list-style-type: none"> a. gametophyte development (micro- & megasporogenesis) ch 23 (p. 402—410) b. Pollination ecology ch 23 (p. 410—413) • Fruit, seed, seedlings ch 8 (p. 125—141) • Roots and soils ch 5 	Packets given by chapter/topic Quizzes Tests Graphing lab Propagation lab Fruit lab

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			<p>Paper chromatography lab</p> <p>Diagrams and coloring project</p> <p>Design and construct a flower pot; pot a plant grown in greenhouse plot as Christmas gift</p>
2 nd semester	12.A.4a 12.A.4b 12.A.4c 11.A,4c	<p>Angiosperm, cont.</p> <ul style="list-style-type: none"> • Stems ch6 • Leaves ch 7 <p>Plant functions</p> <ul style="list-style-type: none"> • Water in plants ch 9 • Plant metabolism ch 10 • Plant growth and responses ch 11 	<p>Dentrochronology Lab</p> <p>Packet given by chapter/topic</p> <p>Quizzes</p> <p>Test</p> <p>Nutrition experiments</p> <p>Hydro phonic experiments</p>
	12A.4a 12.A.4b 12.A.4c	<p>Plant diversity</p> <ul style="list-style-type: none"> • The mosses ch 20 • The ferns ch 21 	<p>Packet given by chapter/topic</p>

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		<ul style="list-style-type: none"> • The gymnosperms ch 22 • The angiosperms ch 23 	Quizzes Test Construct an ecosystem
	12.A.4c 13.B.4b	History and Future of Plants <ul style="list-style-type: none"> • Flowering plants and civilization • Ecology • Careers 	Field trip to Chicago's Field Museum with assignments Quizzes Tests
	13.B.4b 13.B.4c	Agronomy and Horticulture	Floral arrangements Develop flowerbed; fountain, or indoor planter
		<p>A field trip to Shedd Aquarium and the Field Museum in Chicago are part of the curriculum. An assignment is completed at the Field Museum.</p> <p>Guest speakers from the area are brought in when their area of expertise applies to areas we are studying.</p>	