

Curriculum Map ~ Agricultural Science I

Grade: HS Content: Intro to Agriculture Teacher: J. Niver

	Time period	Focus Standard	Assessment	Essential Question	Resources	Differentiation	Real World Experiences
<p>Section 1 Agriscience in the Information Age</p>	1 week (September)	CRP.01-12	Section 1 (Unit) Test	What is Agriscience?	<i>Agriscience: Fundamentals and Applications</i> Text (56)		
<ul style="list-style-type: none"> The Science of Living Things 		ESS.01	-wkst 01-01,01-02 Lab: There's A Method to the Madness -Self-evaluation -study guide Unit 1(chapter) quiz	What are the major sciences contributing to the development, existence, and improvement of living things?	Pgs. 2-17	-Guided Notes -on-line Vocab flashcards -web links -Mindtap -On-line Chapter reviews	Guest speakers: -retired farmer -Cornell scientist -County Extension Agent Videos on careers in agri.
<ul style="list-style-type: none"> Better Living through Agriscience 		ESS.02, HS-ETS1-1.	Unit 2 quiz	What are the important elements of a desirable environment and how are efforts being made to improve it?	Pgs. 19-45	https://www.youtube.com/watch?v=s1YDLdL4nbc History of Agriculture: past to present	https://www.youtube.com/watch?v=Qmla9NLFbVU
<ul style="list-style-type: none"> Biotechnology 		BS.01, BS.02, BS.03, HS-ESS3-4.	Unit 3 quiz	What are the elements of biotechnology?	Pgs. 48-58	Research Ag Biotech companies and give an oral presentation on one	https://www.youtube.com/watch?v=BAWdWf6aZg

Curriculum Map~ Agricultural Science I

Section 2 You and the New Millennium	1 week (September)	CRP.01-.12	Section 2 test	Is Agriscience In Your Future?	Agriscience: Fundamentals and Applications Text (63)		https://www.youtube.com/watch?v=yID_P4RHZq8
<ul style="list-style-type: none"> • Career Options in Agriscience 		Agrbusiness Systems(ABS), Animal Systems (AS), Biotechnology Systems (BS), Environmental Service Systems (ESS), Food Products and Processing (FPP), Natural Resource Systems (NRS), Plant Science Systems (PS)	Unit 4 quiz	What are the variety of career opportunities in agriscience? How can you prepare for a career in agriscience?	Pgs. 64-78	https://www.agexplorer.com/sites/agexplorer.com/files/career-finder/#/home	https://www.youtube.com/watch?v=LC01qJNgUfE Tractor Safety Course- Ben Brooks Guest Speaker --Farm Safety - McNeill & Co-Katherine Niver
<ul style="list-style-type: none"> • Supervised Agricultural Experience 		FFA	Unit 5 quiz Write a resume	How will you plan for a supervised agricultural experience?	Pgs. 81-104	Brainstorm ideas for SAE opportunities locally	https://www.youtube.com/watch?v=WZ7IOXeH0VI
<ul style="list-style-type: none"> • Leadership Development in Agriscience 		FFA	Unit 6 quiz	What are the basic leadership skills you will need? What are the fundamentals of FFA?	Pgs. 107-127		https://www.youtube.com/watch?v=WZ7IOXeH0VI
Section 3 Natural Resources Management	2 months (September-October)	NSR.01-.04 ESS.01-.05	Section 3 test	What Difference Can You Make?	Agriscience: Fundamentals and Applications Text (135)		

Curriculum Map ~ Agricultural Science I

<ul style="list-style-type: none"> Maintaining Air Quality 		<ul style="list-style-type: none"> ABS.02, ESS.01, ESS.02, ESS.03, ESS.04, ESS.05, NRS.01, NRS.02, NRS.03, NRS.04, NRS.05, HS-LS2-5, HS-LS2-7, HS.ESS3-6. 	Unit 7 quiz	<p>What are the major sources of air pollution? How can you maintain and improve air quality?</p>	Pgs. 132-148	https://www.youtube.com/watch?v=dITwIq19K	https://www.youtube.com/watch?v=nvH_sqmE268 Guest speaker- DEC
<ul style="list-style-type: none"> Water and Soil Conservation 		<ul style="list-style-type: none"> ABS.01, ABS.02, ESS.01, ESS.02, ESS.03, ESS.04, ESS.05, NRS.01, NRS.02, NRS.03, NRS.04, NRS.05, HS-PS1-5, HS-LS2-3,, HS-LS2-6, HS-LS2-7,, HS.ESS2-2, HS.ESS2-5,, HS.ESS3-5, HS.ESS3-6,, HS.ESS3-3., 	Unit 8 quiz	<p>What is the relationship between water and soil in our environment? What are the recommended practices for conserving these resources?</p>	Pgs. 151-168	https://www.youtube.com/watch?v=im4HVXMG168	https://www.youtube.com/watch?v=heykhaFmoQc Guest speaker-ASCS
<ul style="list-style-type: none"> Soils and Hydroponics Management 		<ul style="list-style-type: none"> ABS.01, ABS.02, ABS.03, ABS.04, ABS.05, ABS.01, ABS.02, ESS.01, ESS.02, ESS.03, ESS.04, ESS.05, NRS.01, NRS.02, NRS.03, NRS.04, NRS.05, HS-PS1-11, HS-ESS3-5, HS-ESS3-2. 	Unit 9 quiz	<p>Where did soil come from? How do we classify soils? What procedures are used to effectively manage soil and hydroponics?</p>	Pgs. 172-203	https://www.youtube.com/watch?v=UHFbNu4_Guc0	https://www.youtube.com/watch?v=AGcYAPkFhUY Field trip to Ithaca hydroponics Finger Lakes Fresh
<ul style="list-style-type: none"> Forest Management 		<ul style="list-style-type: none"> ABS.01, ABS.02, ESS.01, ESS.02, ESS.03, ESS.04, ESS.05, NRS.01, NRS.02, NRS.03, NRS.04, NRS.05, HS-LS2-6. 	Unit 10 quiz	<p>What is the relationship between forests and the environment? What are some recommended practices for using forest resources?</p>	Pgs. 207-231		https://www.youtube.com/watch?v=a6AxKqF0ioq Guest speaker-Gutchess Lumber or Cotton-Hanlon

Curriculum Map~ Agricultural Science I

<ul style="list-style-type: none"> Wildlife Management 		ABS.01, ABS.02, AS.02, AS.05, NSR.01, NSR.04, HS-LS1-2, HS-LS2-6, HS-LS2-8.	Unit 11 quiz	What is the relationship between wildlife and the environment? What practices are used in managing wildlife enterprises?	Pgs. 234-251	https://www.youtube.com/watch?v=vApuhek--To https://www.youtube.com/watch?v=nkEIBKRLZZ0 https://www.youtube.com/watch?v=WqIBxkd2c28	Guest speaker- DEC
<ul style="list-style-type: none"> Aquaculture 		ABS.01, ABS.02, ABS.03, NSR.01, NSR.02, NSR.03, NSR.04, HS-LS1-2, HSHS-LS2-8--LS1-3, HS-LS2-6, HS-ESS2-5.	Unit 12 quiz	What are the biological requirements necessary for the production of aquatic plants and animals?	Pgs. 254-267	https://www.youtube.com/watch?v=oSdEQNY1mKA	Guest speaker- local fish farm?
Section 4 Integrated Pest Management	2 weeks (November)	PS.03.03, NSR.04.03	Section 4 test	The Good, the Bad, and the Ugly..Which Is Which?	Agriscience: Fundamentals and Applications Text (42)		https://www.youtube.com/watch?v=WTsXozgYGOU https://www.youtube.com/watch?v=7UJKUleJWeE
<ul style="list-style-type: none"> Biological, Cultural, and Chemical Control of Pests 		ABS.01, ABS.02, ABS.03, PS.03, HS-PS1-1, HS-PS1-2, HS-PS1-5, HS-PS1-11, HS-LS2-7.	Unit 13 quiz	What are the major pest groups? What are some elements of effective pest management programs?	Pgs. 272-289		Guest speaker- Cornell Entomology student Insectapalooza 2019 (Oct. 19-9-3)
<ul style="list-style-type: none"> Safe Use of Pesticides 		ABS.02, HS-PS1-9, HS-PS1-10	Unit 14 quiz	How are the nature of chemicals used to control pests? What are the chemical safety precautions?	pgs.292-314	https://www.youtube.com/watch?v=GmIKVfk_YxA https://www.youtube.com/watch?v=53K3IPnUjdu	Guest speaker- Agway or Dowling Ag Service

Curriculum Map ~ Agricultural Science I

<p>Section 5 The Quest for More and Better Plants!</p>	<p>2 weeks November-December)</p>	<p>PS.02-03</p>	<p>Section 5 test</p>	<p>Bigger and Better?</p>	<p><i>Agriscience: Fundamentals and Applications</i> Text (60)</p>	<p>https://www.youtube.com/watch?v=h9oDTMXM7M8&t=119s https://www.youtube.com/watch?v=NeESTyVv811</p>	<p>Speakers from Cornell University School of Integrated Plant Science</p>
<ul style="list-style-type: none"> Plant Structures and Taxonomy 		<p>PS.02, HS-LS1-2., HS-LS1-5, HS-LS1-6, HS-LS1-7.</p>	<p>Unit 15 quiz</p>	<p>What are the major parts of plants and what are their functions?</p>	<p>318-335</p>	<p>https://www.youtube.com/watch?v=CmBDVlUB19g</p>	
<ul style="list-style-type: none"> Plant Physiology 		<p>PS.02, HS-LS1-2., HS-LS1-3, HS-LS1-5, HS-LS1-6, HS-LS1-7.</p>	<p>Unit 16 quiz</p>	<p>How do plants make food? How are air, soil, water, and essential nutrients involved?</p>	<p>pgs. 338-353</p>	<p>https://www.youtube.com/watch?v=HLYPm2IdSTE</p>	
<ul style="list-style-type: none"> Plant Reproduction 		<p>PS.03, HS-LS2-8, HS-LS1-4, HS-LS3-1, HS-LS3-2, HS-LS4-1-4-5,</p>	<p>Unit 17 quiz</p>	<p>How do plants reproduce? How can we help them propagate?</p>	<p>Pgs. 356-378</p>	<p>https://www.youtube.com/watch?v=Aap-6x8Cn3Q</p>	<p>Guest speaker- Cornell Uni. - Soil and Crop Sciences</p>
<p>Section 6 Crop Science</p>	<p>1 month (January)</p>	<p>PS.01-.04.</p>	<p>Section 6 test</p>	<p>How can science improve the production of plants to benefit our world?</p>	<p><i>Agriscience: Fundamentals and Applications</i> Text (103)</p>		<p>Guest speaker- Cornell Uni. - Soil and Crop Sciences</p>
<ul style="list-style-type: none"> Home Gardening 		<p>PS.02, PS.03, PS.04</p>	<p>Unit 18 quiz</p>	<p>How can you plan, plant, and manage a home garden?</p>	<p>Pgs. 384-400</p>	<p>https://www.youtube.com/watch?v=ElEU8tAvs</p>	<p>Field trip~ TC3 gardens</p>
<ul style="list-style-type: none"> Vegetable Production 		<p>ABS.01, ABS.02, ABS.03, ABS.04, ABS.05, PS.01, PS.02, PS.03</p>	<p>Unit 19 quiz</p>	<p>What are the basic principles of vegetable production? What opportunities are there?</p>	<p>Pgs. 403-423</p>	<p>https://www.youtube.com/watch?v=uJ-5mgvP9M</p>	<p>Guest speaker/ field trip Shared Roots Farm</p>

Curriculum Map~ Agricultural Science I

<ul style="list-style-type: none"> Fruit and Nut Production 		ABS.01, ABS.02, ABS.03, ABS.04, ABS.05, PS.01, PS.02, PS.03	Unit 20 quiz	What are the basic principles of fruit and nut production? What opportunities are there?	pgs.426-441	https://www.youtube.com/watch?v=1mfnS9e9Y https://www.youtube.com/watch?v=Yy7PGnw_9IM	Guest speaker/ field trip to active orchard Beak n Skiff or Hollenbeck's
<ul style="list-style-type: none"> Grain, Oil, and Specialty Field-Crop Production 		ABS.01, ABS.02, ABS.03, ABS.04, ABS.05, PS.01, PS.02, PS.03	Unit 21 quiz	How are grain, oil, and specialty crops produced?	pgs.443-468	https://www.youtube.com/watch?v=zMne55DwF5 https://www.youtube.com/watch?v=SH18YM0vqWM	Guest speaker/ field trip- Round House Mills, Cortland
<ul style="list-style-type: none"> Forage and Pasture Management 		ABS.01, ABS.02, ABS.03, ABS.04, ABS.05, PS.01, PS.02, PS.03	Unit 22 quiz	How are forage and pastures produced and managed?	pgs.470-487		https://www.youtube.com/watch?v=K1ohF3VemfY&list=PLJH446R1I1pZ9y06XMY4XC0aAlbqP06rmd
Section 7 Ornamental Use of Plants	1 month (February)		Section 7 test	Why Plants?	<i>Agriscience: Fundamentals and Applications Text (121)</i>		
<ul style="list-style-type: none"> Indoor Plants 		ABS.01, ABS.02, ABS.03, ABS.04, ABS.05, PS.04	Unit 23 quiz	Why are indoor plants used?	Pgs. 492-511	https://www.youtube.com/watch?v=3IEQRJlME08	Guest speaker~ Cornell Coop. Ext. Agent Claudia Hitt
<ul style="list-style-type: none"> Turfgrass Use and Management 		ABS.01, ABS.02, ABS.03, ABS.04, ABS.05, PS.04	Unit 24 quiz	How do turfgrasses grow and develop? How can they be maintained?	Pgs. 514-536		https://www.youtube.com/watch?v=Q_BJtRqRdl5 Guest speaker~ golf course manager (Knickerbocker's, Elm Tree, or Walden Oak's)
<ul style="list-style-type: none"> Trees and Shrubs 		ABS.01, ABS.02, ABS.03, ABS.04, ABS.05, PS.01, PS.02, PS.03, PS.04	Unit 25 quiz	How are trees and shrubs used and why?	Pgs. 539-555	https://www.youtube.com/watch?v=iv154QP4GSO	https://www.youtube.com/watch?v=tiy6bxmlEVqg

Curriculum Map ~ Agricultural Science I

Section 8 Animal Sciences	2 months (March- April)	AS.01 -08.	Section 8 test	There's a Science To Raising Animals?	Agriscience: Fundamentals and Applications Text (121)	https://www.youtube.com/watch?v=9FtdMbaglDs	Guest speaker- Megan Wildman- Purina Feeds Rep.
<ul style="list-style-type: none"> Animal Anatomy, Physiology, and Nutrition 		AS.03, AS.06, HS-LS1-1, HS-LS1-2.	Unit 26 quiz	How are the nutritional requirements of animals determined? How can those be satisfied?	Pgs. 560-577	https://www.youtube.com/results?search_query=animal+health+care	Guest speaker- veterinarian
<ul style="list-style-type: none"> Animal Health 		ABS.02, AS.05, AS.07, HS-LS1-2.	Unit 27 quiz	What are the most effective strategies for maintaining animal health?	Pgs. 579-594	https://www.youtube.com/watch?v=3agp4U61TaQ	Guest speaker~ Select Sires or ABS
<ul style="list-style-type: none"> Genetics, Breeding, and Reproduction 		AS.04, AS.06, HS-LS1-1, HS-LS2-8, HS-LS1-4, HS-LS3-1, HS-LS3-2, HS-LS4-1-4-5.	Unit 28 quiz	How are genetics used to improve breeding and reproduction of animals?	Pgs. 597-613	https://www.youtube.com/watch?v=k5LGD02OwvY8	https://www.youtube.com/watch?v=3Bvi3hbCZMk Guest speakers~ dog groomer, pet store
<ul style="list-style-type: none"> Small Animal Care and Management 		ABS.01, ABS.02, ABS.03, ABS.04, ABS.05, AS.01, AS.02, AS.03, AS.04, AS.05, AS.06, AS.07, AS.08, HS-LS1-3.	Unit 29 quiz	What are the types, uses, care, and management of small animals?	Pgs. 615-633	https://www.youtube.com/watch?v=XieXDrqVYhk https://www.youtube.com/watch?v=B3QqT9B7lPk	https://www.youtube.com/watch?v=9B7lPk Field trips~ Trinity Valley Farm Birdsall's Beef Farm or Ben Brook's Beef Farm
<ul style="list-style-type: none"> Dairy and Livestock Management 		ABS.01, ABS.02, ABS.03, ABS.04, ABS.05, AS.01, AS.02, AS.03, AS.04, AS.05, AS.06, AS.07, AS.08, HS-LS1-3.	Unit 30 quiz	What are the types, uses, care, and management of dairy and livestock animals?	Pgs. 636-660	https://www.youtube.com/watch?v=BvXtUJEKZ594	Guest speaker/ field trip~ Lone Birch Stable or Strawberry Fields Equestrian Center or Cornell University
<ul style="list-style-type: none"> Horse Management 		ABS.01, ABS.02, ABS.03, ABS.04, ABS.05, AS.01, AS.02, AS.03, AS.04, AS.05, AS.06, AS.07, AS.08, HS-LS1-3.	Unit 31 quiz	What role do horses play in our society? How do we care for and manage them?	Pgs. 663-681	https://www.youtube.com/watch?v=BvXtUJEKZ594	Guest speaker/ field trip~ Lone Birch Stable or Strawberry Fields Equestrian Center or Cornell University

Curriculum Map~ Agricultural Science I

<p>Section 9 Wave of the Future</p>	2 weeks (May)	FPP.01-.04	Section 9 test	Food is a science??	<i>Agriscience: Fundamentals and Applications Text (48)</i>	https://www.youtube.com/watch?v=YxpvtIhDjg&t=15s	https://www.youtube.com/watch?v=Q18C3MEEXVJ Field trip to BOCES
<ul style="list-style-type: none"> The Food Industry 		ABS.01, ABS.02, ABS.03, ABS.04, ABS.05, FPP.04	Unit 32 quiz	What are the elements, trends, and career opportunities in the food industry?	Pgs. 686-706	https://www.youtube.com/watch?v=vqjAw69caSs	https://www.youtube.com/watch?v=JvInFmIXG4Q https://www.youtube.com/watch?v=BCL1U1qRXM
<ul style="list-style-type: none"> Food Science 		ABS.01, ABS.02, ABS.03, ABS.04, ABS.05, FPP.01, FPP.02, FPP.03	Unit 33 quiz	What are the nutrient requirements for human health? How do we ensure an adequate and healthy food supply?	Pgs. 708-734		
<p>Section 10 Putting It All Together</p>	2 weeks (May)	ABS.01-.05	Section 10 test	Where Could I Fit In the Agriscience Industry?	<i>Agriscience: Fundamentals and Applications Text (55)</i>		
<ul style="list-style-type: none"> Marketing In Agriscience 		ABS.01, ABS.02, ABS.03, ABS.04, ABS.05	Unit 34 quiz	How can I make a profitable living in the agriscience industry?	Pgs. 738-759	https://www.youtube.com/watch?v=ShoDFoIMUY&t=33s	https://www.youtube.com/watch?v=MrxBHcuCP7o Guest speaker: Cortland County Chamber of Commerce
<ul style="list-style-type: none"> Agribusiness Planning 		ABS.01, ABS.02, ABS.03, ABS.04, ABS.05	Unit 35 quiz	How are decisions made in an agribusiness? What are some economic principles that affect a business?	Pgs. 761-778	https://www.youtube.com/watch?v=qew4Y9C9KX	https://www.youtube.com/watch?v=Kc39cpNVy2U Guest speaker: Farm Credit Services East
<ul style="list-style-type: none"> Entrepreneurship in Agriscience 		ABS.01, ABS.02, ABS.03, ABS.04, ABS.05	Unit 36 quiz	What is an entrepreneur? What considerations are there for planning and operating an agribusiness?	Pgs. 781-793	https://www.youtube.com/watch?v=P96S3fUFRzc	https://www.youtube.com/watch?v=eUnAVquG6Y

Curriculum Map~ Agricultural Science I

