

Exploring Agriculture in America Instructional Framework

An instructional framework provides educators with a list of benchmark statements aligned to Common Core and national content area standards for a given course or program. The Missouri Exploring Agriculture in America Instructional Framework lists a sequence of content, organized into distinct units of instruction. Sample activities and potential Common Core related enhancements are provided.

	Common Core Standards	National Standards (AFNR)	Activities	Enhancements
A. Introduction to Agriculture				
1. Define agriculture and identify career opportunities in agriculture	W.7.1 W.8.1 SL.7.1 SL.8.1 SL.7.4 SL.8.4 L.8.4 L.7.4 RH.6-8.7.7 WHST.6-8.7		1. Students be presented information, discuss as a group, and develop their own opinion in writing. Students will research careers and present to the class, students will ask questions to find and match specific careers with descriptions.	Have students present personal definition and opinion with supporting evidence to the class.
2. Describe the role of agriculture in the world	7.NS.3 W.7.7 W.8.7		1. Students will buy agriculture products on the world market with fake funds, (International Auction), students will use the world fact book to find and use information to answer questions.	
3. Describe the role of agriculture in the United States	RH.6-8.7.7 8.EE.5 8.SP.1 7.EE.3 7.SP.1 7.SP.2 7.SP.5 7.SP.7		1. Students will research US census, graph findings, and interpret graphs.	

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	WHST.6-8.8 RST.6-8.7			
4. Describe agriculture in Missouri	RH.6-8.7 SL.7.4 SL.8.4		<ol style="list-style-type: none"> 1. Students will use the Missouri Farm Facts Book to research commodities grown in Missouri. 2. Students research careers, interview community member, and present to the class. 	
5. Identify advances in agricultural technology and their implications	7.SP.3 7.SP.2 8.SP.1 SL.7.1 SL.8.1 SL.7.4 SL.8.4 W.7.8 W.8.8 W.7.2 W.8.2 W.7.4 W.8.4 W.7.7 W.8.7 WSHT.6-8.2 WSHT.6-8.4 WHST.6-8.7 WHST.6-8.8		<ol style="list-style-type: none"> 1. Students will use information to predict what the future population will be, students will work in groups, and then share and discuss. 2. Students will use multiple sources of knowledge to create, write, and present a new ag product. 	Have students develop chart to explain prediction.
B. Plant Science				
1. Describe how plants affect our lives.				
2. Describe the parts of a plant and major processes.	WHST.6-8.7		<ol style="list-style-type: none"> 1. Students will gather information and draw conclusions to find answers. 	
3. Describe the importance of the growing	RST.6-8.3		<ol style="list-style-type: none"> 1. Students will identify each 	

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medium to plants.	WHST.6-8.7		component and draw conclusions to what items are missing. 2. Students will follow procedures and make measurements.	
4. Identify the important factors to consider in caring for plants.	WHST.6-8.7			
5. Identify current and emerging technologies of plant agriculture.	SL.7.1 SL.8.1 SL.7.4 SL.8.4 WHST.6-8.8		1. Students will gather information to then conduct research. 2. Students will work in groups to create a new genetically modified plant. 3. Students will conduct a biotechnology survey within the community and present to class.	
C. Animals in Society				
1. Describe the importance of animals.				
2. Describe the responsibilities of animal ownership.	W.7.7 W.8.7 W.7.2 W.8.2 8.EE.7 8.F.4 7.NS.1 7.NS.2 7.NS.3 7.EE.3 7.EE.4		1. Students will keep records and journals for how they are caring for their pet. 2. Students will develop a budget, and figure cost using a linear formula.	Have students participate in an online animal care activity, and have them record and journal activities.
3. Identify factors in selecting an animal.	RST.6-8.8 RST.6-8.9 RST.6-8.2 W.7.7 W.8.7		1. Students will collect information and combine it with other opinions including their own. 2. They must distinguish and	Have student present their opinion of factors to select an animal supported by evidence to the class.

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	SL.7.4 SL.8.4		develop a combine factor to select an animal.	
4. Identify current and emerging technology of animal agriculture.	W.7.7 W.7.8 W.8.7 W.8.8		1. Students will combine information and research from multiple sources to answer questions.	
D. Products from Agriculture				
1. Describe the role of agriculture in the food chain.				
2. Identify food from plants				
3. Identify food from animals	8.EE.5 8.F.5		1. Students will graph current trends and predict future trends.	
4. Describe the importance of food processing and safety.	RST.6-8.4 SL.7.1 SL.8.1 SL.7.4 SL.8.4		1. Students will compare and contrast food label and safety systems between different food examples, students will lead a discussion about their finding from an experiment.	
5. Identify fiber products from agriculture.	W.7.7 W.7.8 W.8.7 W.8.8 RST.6-8.3		1. Students will use internet to research information about different products to answer questions, students will create a biodegradable plastic.	
6. Describe nonfood products from agriculture.				
E. Natural Resources and Conservation				
1. Describe the importance of natural resources.	SL.7.1 SL.8.1 RST.6-8.3		1. Students will work with a group to complete a project to describe the importance of natural resources. Students will complete a complex list of steps to observe the effects of	

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			pollution.	
2. Describe the importance of soil conservation.				
3. Describe the importance of water quality.	7.NS.1 7.NS.2 7.NS.3		1. Students will complete a chart on water quality statistics that requires multiplication and division	
4. Describe the importance of air quality.				
5. Describe the importance of wildlife management.				
6. Describe how conservation issues affect agriculture.				
F. Leadership and Personal Development				
1. Identify important factors in developing leadership skills.	SL.7.1 SL.8.1		1. Students will present parliamentary procedure information to the class, group discussion, and interaction.	
2. Explain the importance of keeping financial records.	7.SN.1 7.SN.2 7.SN.3 7.EE.3		1. Students are using percentages and money to determine interest rate.	
G. Basic Home and Farmstead Safety and Maintenance				
1. Understand electricity and explain precautions for the safe use of electricity	RST.6-8.4 7.RP.1 7.RP.2 7.SN.1 7.SN.2 7.SN.3 7.EE.3 7.G.6		1. Students will read electricity charts, use fractions for measuring, use formulas to calculate area, estimate cost, and amount needed.	
2. Identify common measurements and give examples of their uses.	7.RP.1 7.RP.2 7.SN.1		1. Students use fractions for measuring, use formulas to calculate area, estimate	

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	7.SN.2 7.SN.3 7.EE.3 7.G.6		cost, and amount needed.	
3. Identify common tools and their uses.				
4. Identify personal safety practices when using hand and power tools.				
5. Identify safety and maintenance procedures for lawn and garden equipment.				

Codes for Common Core Mathematics are:

- N = Number and Quantity
- A = Algebra
- F = Functions
- G = Geometry
- S = Statistics and Probability

Codes for Common Core English Language Arts and Literacy are:

- RL = Reading for Literature
- RI = Reading for Informational Text
- RST = Reading for Literacy in Science and Technical Subjects
- RH = Reading for Literacy in History/Social Studies
- W = Writing
- WHST = Writing for Literacy in History/Social Studies, Science, and Technical Subjects
- SL = Speaking and Listening
- L = Language

