



NATIONAL
FFA ORGANIZATION

Agriculture, Food and Natural Resources Value Chain

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As in any industry, consumers and technology drive what and how things are produced. Personal health, sustainability and nutrition are significant drivers affecting agriculture, food and natural resources, but there are other market factors constantly weighing on these industries as well, including economics, governmental policies, the environment, demographics and more. Meanwhile, innovation makes involvement in these industries ever-expanding. This guide is designed to help teachers and advisors incorporate the exploration of the Agriculture, Food and Natural Resources Value Chain within their courses.

The AFNR Value Chain website: [FFA.org/value-chain/](https://ffa.org/value-chain/)

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STUDENT ACTIVITY SHEETS:

Direct access to student activity sheets without lesson plan or answer key for easy upload to learning management systems or printing for classwork.

<https://ffa.box.com/s/w7rps1jw8nqi5dpw5l3tiahucvr0xdb1>

THESE ACTIVITIES ARE ALIGNED TO THE FOLLOWING STANDARDS:

AFNR Performance Element

- CS.05. Describe career opportunities and means to achieve those opportunities in each of the Agriculture, Food & Natural Resources career pathways.

FFA Precept

- FFA.PL-A.Action: Assume responsibility and take the necessary steps to achieve the desired results, no matter what the goal or task at hand.
- FFA.PL-C.Vision: Visualize the future and how to get there.
- FFA.PL-E.Awareness: Understand personal vision, mission and goals.
- FFA.PL-F.Continuous Improvement: Accept responsibility for learning and personal growth.
- FFA.PG-I.Professional Growth: Assume responsibility for attaining and improving upon the skills needed for career success.
- FFA.PG-J.Mental Growth: Embrace cognitive and intellectual development relative to reasoning, thinking and coping.
- FFA.CS-M.Communication: Effectively interact with others in personal and professional settings.
- FFA.CS-N.Decision Making: Analyze a situation and execute an appropriate course of action.

Common Career Technical Core

- AG5 Describe career opportunities and means to achieve those opportunities in each of the Agriculture, Food & Natural Resources Career Pathways.

NASDCTEC

- AGC09.02 Select, research and examine critical aspects of career opportunities in one or more AFNR career pathways in order to gain an understanding of the breadth of occupations within this cluster.

Common Core – Reading: Informational Text

- CCSS.ELA-Literacy.RI.9-10.4 Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language of a court opinion differs from that of a newspaper).

Common Core – Writing

- CCSS.ELA-Literacy.W.9-10.2 Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

Common Core – Speaking and Listening

- CCSS.ELA-Literacy.SL.9-10.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9-10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

Common Core – Literacy in Science & Technical Subjects: Writing

- CCSS.ELA-Literacy.WHST.9.10.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

AFNR Career Ready Practices

- CRP.02. Apply appropriate academic and technical skills. Career-ready individuals readily access and use the knowledge and skills acquired through experience and education to be more productive.
- CRP.04. Communicate clearly, effectively, and with reason. Career-ready individuals communicate thoughts, ideas and action plans with clarity, whether using written, verbal and/or visual methods.
- CRP.07. Employ valid and reliable research strategies. Career-ready individuals are discerning in accepting and using new information to make decisions, change practices or inform strategies.
- CRP.08. Utilize critical thinking to make sense of problems and persevere in solving them. Career-ready individuals readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem.
- CRP.10. Plan education and career path aligned to personal goals. Career-ready individuals take personal ownership of their own educational and career goals, and they regularly act on a plan to attain these goals.
- CRP.11. Use technology to enhance productivity. Career-ready individuals find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems.

Partnership for 21st Century Skills

- Communication
- Critical Thinking and Problem Solving
- Flexibility and Adaptability
- Information Literacy
- Initiative and Self-Direction
- Leadership and Responsibility

GUIDE TO LESSON PLAN USE:

Integration of the Agriculture, Food and Natural Resources Value Chain Throughout a Course

The first lesson (AFNR Value Chain Worksheet) included in this implementation guide gives students the opportunity to explore the AFNR Value Chain in segments by selecting and learning about one part at a time. By having this single-step worksheet, you could have students look at each part as you move through the agriculture industry in class or have each student “specialize” in a step and share with the class. Note: If you would like students to look at each step in the AFNR Value Chain, this worksheet will need to be used for each step.

Agriculture, Food and Natural Resources Value Chain Choice Board

The choice board lesson plan allows students to choose how and when they would like to complete the assignments to learn about the AFNR Value Chain.

Name: _____

Aligned to the following standards:
CS.05; FFA.PL-A; FFA.PL-C; FFA.PL-E; FFA.PL-F; FFA.PG-I; FFA.PG-J; FFA.CS-M;
FFA.CS-N; AG5; AGC09.02; CCSS.ELA.RI.9-10.4; CCSS.ELA.W.9-10.2; CCSS.ELA.SL.9-10.1; CCSS.ELA.WHST.9.10.4; CRP.02; CRP.04; CRP.07; CRP.08; CRP.10; CRP.11

AFNR Value Chain Worksheet

DIRECTIONS:

Read through the different components of one part of the Agriculture, Food and Natural Resources (AFNR) Value Chain (FFA.org/value-chain/) and complete the following activities.

Part of the AFNR Value Chain being reviewed

Draw the logo for the company highlighted in this part of the AFNR Value Chain.

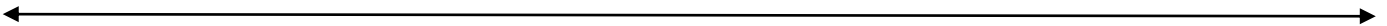
Study the symbol for this part of the AFNR Value Chain, and give three reasons why this symbol was chosen to represent this area.

What makes this part in the AFNR Value Chain important?

After learning about the company, explain how this logo represents its work.



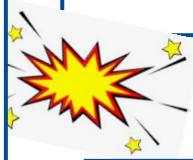
Read the careers associated with this step in the AFNR Value Chain and select "Learn More." Develop a timeline that a person would need to follow to be prepared for a career in this part of the AFNR Value Chain. Be sure to start with high school and work your way to employment.



Name: _____

How does this current event affect you?

What is the current event being highlighted in this part of the AFNR Value Chain?



Summarize the impact the current event has on agriculture and the economy.

What impact could this current event have on the rest of the AFNR Value Chain?



Describe three facts that differentiate this part of the AFNR Value Chain from other parts.



If this part in the AFNR Value Chain went missing, what would happen to the agriculture industry?

Name: _____

What are the positives of this part of the value chain?

Positives

1.

2.

3.

What are some challenges?

Challenges

1.

2.

3.

Circle the emoji below that best reflects your career interest level for this part of the AFNR Value Chain.



Why did you select this emoji?

Sketch a picture and provide an explanation that accurately summarizes this part in the AFNR Value Chain.

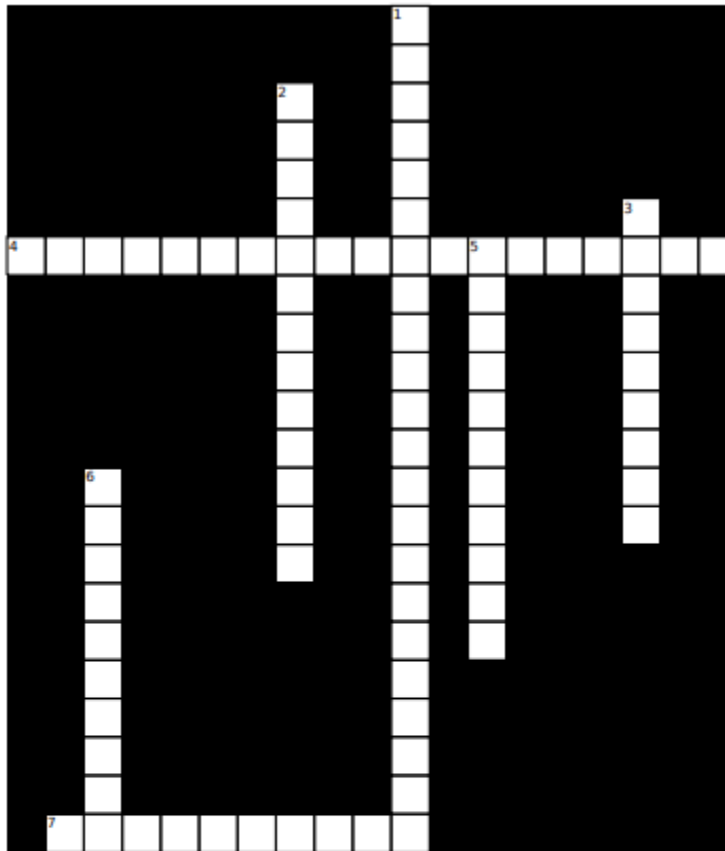
Aligned to the following standards:
 CS.05; FFA.PL.04; FFA.PL.C; FFA.PL-E; FFA.PL-F; FFA.PG-I; FFA.PG-J; FFA.CS-M; FFA.CS-N; AG5; AGC09.02; CCSS.ELA.RI.9-10.4; CCSS.ELA.W.9-10.2; CCSS.ELA.SL.9-10.1; CCSS.ELA.WHST.9.10.4; CRP.02; CRP.04; CRP.07; CRP.08; CRP.10; CRP.11

Name: _____

Appendix 1: AFNR Value Chain Crossword

DIRECTIONS:

Complete the crossword below after reviewing the different steps in the AFNR Value Chain.



- | Across | Down |
|--|--|
| 4 Advertising and marketing are used to inform consumers of their purchase options and lead them to stores. | 1 After determining trends in consumer preferences, labs create innovative new processes, products and solutions to solve problems. |
| 7 When the end product of food, fuel, fiber, lumber or pharmaceuticals is ready, it is stocked for public use. | 2 Inputs like seed, machinery and data analysis are just some of the things needed to carry out the duties of the rest of the chain. |
| | 3 Finally, products at the end of the chain are ready for consumption. |
| | 5 Someone needs to turn raw materials into products and get them to consumers. |
| | 6 Here, the raw materials needed for end products are produced. |

Appendix 2: Extra, Extra! Read All About It!

Write a two-paragraph news release/article about the role of each step in the AFNR Value Chain and its impact on the economy. Use the tips below to help you construct your article/news release.

[illegible]

TIPS for a successful article:

1. Address the who, what, when, where and why.
2. Start off with a catchy first sentence.
3. Quote important information.
4. Be straightforward.
5. Use appropriate/correct vocabulary.

Name: _____

Appendix 3: Acrostic Poem

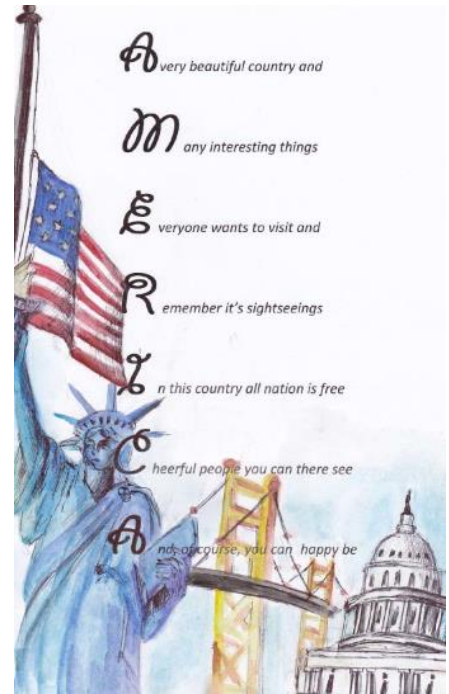
DIRECTIONS:

An acrostic poem is a poem that uses the letters in a word to represent the first letter of the first word in a sentence. Create an acrostic poem about the AFNR Value Chain using the letters in "value chain."

V
A
L
U
E

C
H
A
I
N

Example of an acrostic poem:



Name: _____

Appendix 4: Putting All the Pieces Together

DIRECTIONS:

Read and look through the different careers, SAEs, descriptions and images used for each part of the AFNR Value Chain. Cut out each career, SAE, description and image found below. Glue the pieces into the appropriate column and row in the chart on the next page to indicate the step in the AFNR Value Chain that the picture, description, SAE or career best matches. Use AgExplorer.ffa.org to help guide your choices.

Careers

Agriculture Journalist	Stock Specialist	Florist	Design Engineer	Packaging Engineer	Carcass Merchandiser	Row Crop Producer
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SAE

Evaluate factors that influence gene expression	Working in a grain facility bagging and placing bags on pallets	Work for and/or operate a wild bird processing service	Treating seed for planting	Preparing eating/nutrition plans for clients	Selling animal health products to consumers	Raise Christmas trees
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Description

Someone needs to turn raw materials into products and get them into consumers' hands.	Finally, products at the end of the chain are ready for consumption.	After determining trends in consumer preferences, research and development labs create innovative new processes, products and solutions to solve problems.	When the end product of food, fuel, fiber, lumber or pharmaceuticals is ready, it is stocked for public use.	Advertising and marketing are used to inform consumers of their purchase options and lead them to stores.	Here, the raw materials needed for end products are produced. Crops are grown, livestock is raised, oil is drilled and coal is mined.	Inputs like seed, machinery and data analysis are just some of the things needed to carry out the duties of the rest of the chain.
---	--	--	--	---	---	--

Picture Symbol from Value Chain



Name: _____

Step in Value Chain	Career	SAE	Description	Picture Symbol from Value Chain
Research & Development				
Pre-Production				
Production				
Supply Chain				
End Product				
Sales, Service and Support				
Consumers				

Name: _____

Appendix 5: Social Media

DIRECTIONS:

Create a social media campaign for the AFNR Value Chain to get other students excited and interested in agriculture. Create a Snapchat filter, Facebook post and Instagram announcement for each step in the AFNR Value Chain.

Snapchat



Facebook

Picture



Instagram

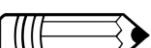
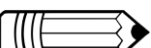
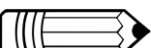
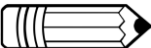
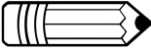


Name: _____

Appendix 6: Career Profiling

DIRECTIONS:

Use AgExplorer.ffa.org to explore different careers, and select one career that would fall within each step in the AFNR Value Chain. Create a career profile page for each career using the template below. In the end you should have seven career profile pages.

Name of Career:		Career Focus Area:
Draw the symbol that is associated with this career from the AFNR Value Chain.		
What kind of education is required for this career?		
Identify three other careers this career would work well with.	How does this career work within this step in the AFNR Value Chain?	
1. 2. 3.		
Basic Information: (Where do I work? What companies could I work for/with?)		
		

Name: _____

Appendix 7: Advertise It!

DIRECTIONS:

Develop a brochure that could be used to educate others about the AFNR Value Chain. Use paper and fold it in a trifold shape or use an online resource. The following are requirements for your brochure:

1. Should be colorful
2. Includes pictures
3. Provides accurate descriptions of the different parts of the AFNR Value Chain
4. Explains the importance of the AFNR Value Chain
5. Has a slogan for each part of the Value Chain
6. Gives examples for each part of the Value Chain
7. Includes careers associated with each part of the Value Chain (Tip: AgExplorer.com is a great resource!)
8. Explains why the Value Chain is important so we can have the things we need

If you are interested in creating a digital brochure, here are some options to consider:

- Canva.com (free but requires an account)
- Microsoft Publisher
- Microsoft PowerPoint
- Keynote
- Microsoft Word (<https://www.goskills.com/Microsoft-Office/Articles/How-to-make-a-brochure-in-Microsoft-Word>)



Name: _____

Rubric: AFNR Value Chain Choice Board

5 POINT TASKS		
Criteria	Points Available	Points Received
Work shows understanding and knowledge of the topic.	2	
Work shows good effort and is of high quality.	1	
Student followed all instructions for the task.	1	
Work was turned in on time.	1	
Total		

10 POINT TASKS		
Criteria	Points Available	Points Received
Work shows understanding and knowledge of the topic.	4	
Work shows good effort and is of high quality.	2	
Student followed all instructions for the task.	2	
Work was turned in on time.	2	
Total		

20 POINT TASKS			
Criteria	Below Average (0–1 points)	Average (2–3 points)	Above Average (4–5 points)
Knowledge	Work shows little to no understanding of the topic.	Work shows some understanding of the topic.	Work shows excellent understanding of the topic.
Quality	Work is very low quality with little evidence of effort.	Work shows some effort and is mostly neat.	Work shows excellent effort and is of high quality.
Instructions	Student did not follow instructions for the task.	Student followed some of the instructions.	Student followed all instructions for the task.
Timeliness	Work was submitted more than one day late.	Work was one day late.	Work was submitted on time.
Total			

KEY — Appendix 1: AFNR Value Chain Crossword

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- FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agricultural education.*

Name: _____

KEY — Appendix 4: Putting All the Pieces Together

Step in Value Chain	Career	SAE	Description	Picture Symbol from Value Chain
Research & Development	Design Engineer	Evaluate factors that influence gene expression	After determining trends in consumer preferences, research and development labs create innovative new processes, products and solutions to solve problems.	
Pre-Production	Packaging Engineer	Treating seed production	Inputs like seed, machinery and data analysis are just some of the things needed to carry out the duties of the rest of the chain.	
Production	Row Crop Producer	Raise Christmas trees	Here, the raw materials needed for end products are produced. Crops are grown, livestock is raised, oil is drilled and coal is mined.	
Supply Chain	Florist	Work for and/or operate a wild bird processing service	Someone needs to turn raw materials into products and get them into consumers' hands.	
End Product	Stock Specialist	Working in a grain facility bagging and placing bags on pallets	When the end product of food, fuel, fiber, lumber or pharmaceuticals is ready, it is stocked for public use.	
Sales, Service and Support	Carcass Merchandiser	Selling animal health products to producers	Advertising and marketing are used to inform consumers of their purchase options and lead them to stores.	
Consumers	Agriculture Journalist	Preparing eating and nutrition programs for a client	Finally, products at the end of the chain are ready for consumption.	