

# Career Cluster: Agriculture, Food & Natural Resources

**Media Type:** DVD

**Duration:** 57 min.

**Goal:** To research and understand various career opportunities in the Agriculture, Food and Natural Resources Cluster.

**Description:** The *Career Cluster: Agriculture, Food & Natural Resources* DVD features careers concentrating on all aspects of agriculture production and environmental science. An in-depth look at several careers featured in the Agriculture, Food and Natural Resources Cluster are presented. Students will explore several career descriptions and learn educational requirements and skills needed to be successful in the cluster, as well as the national median salaries for several careers.

## Objectives:

1. To analyze components of all aspects of the industry.
2. To describe future occupational trends.
3. To determine preparation requirements for various levels of employment.
4. To be introduced to job functions and earnings of various occupations.

**NOTE:** This lesson plan has instruction for all Pathway video segments relative to the Agriculture, Food and Natural Resources Cluster. Videos are segmented by Pathway and can be found in their respective categories on the Career Exploration media site.

Pathway segments include:

- Food Products & Processing Systems Pathway
- Plant Systems Pathway
- Animal Systems Pathway
- Power, Structural & Technical Systems Pathway
- Natural Resources Systems Pathway
- Environmental Service Systems Pathway
- Agribusiness Systems Pathway



Agriculture, Food & Natural Resources Career Cluster (AG)

Cluster	Standard
	Analyze how issues, trends, technologies and public policies impact systems in the Agriculture, Food & Natural Resources Career Cluster™.
	Evaluate the nature and scope of the Agriculture, Food & Natural Resources Career Cluster™ and the role of agriculture, food and natural resources (AFNR) in society and the economy.
	Examine and summarize the importance of health, safety and environmental management systems in AFNR businesses.
	Demonstrate stewardship of natural resources in AFNR activities.
	Describe career opportunities and means to achieve those opportunities in each of the Agriculture, Food & Natural Resources Career Pathways.
	Analyze the interaction among AFNR systems in the production, processing and management of food, fiber and fuel and the sustainable use of natural resources.

# Career Cluster: Agriculture, Food & Natural Resources



## College & Career Readiness Anchor Standards for Writing

Writing Standards	
Production & Distribution of Writing	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
	Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
	Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.
	<b>9-10.4</b> Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
	<b>9-10.5</b> Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.
	<b>9-10.6</b> Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.
	<b>11-12.4</b> Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
Research to Build & Present Knowledge	<b>11-12.5</b> Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.
	<b>11-12.6</b> Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.
	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
	Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
	Draw evidence from literary or informational texts to support analysis, reflection, and research.
	<b>9-10.7</b> Conduct short as well as more sustained research projects to answer a question or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
	<b>9-10.8</b> Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.
	<b>9-10.9</b> Draw evidence from literary or informational texts to support analysis, reflection, and research.
	<b>11-12.7</b> Conduct short as well as more sustained research projects to answer a question or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
	<b>11-12.8</b> Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.
<b>11-12.9</b> Draw evidence from literary or informational texts to support analysis, reflection, and research.	

# Career Cluster: Agriculture, Food & Natural Resources



College & Career Readiness Anchor Standards for Speaking and Listening

## Speaking & Listening Standards

<b>Comprehension &amp; Collaboration</b>		Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
		Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.
		Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.
	<b>9-10.1</b>	Initiate and participate effectively in a range of collaborative discussions with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
	<b>9-10.2</b>	Integrate multiple sources of information presented in diverse media or formats evaluating the credibility and accuracy of each source.
	<b>9-10.3</b>	Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, identifying any fallacious reasoning or exaggerated or distorted evidence.
	<b>11-12.1</b>	Initiate and participate effectively in a range of collaborative discussions with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
<b>Presentation of Knowledge &amp; Ideas</b>		Integrate multiple sources of information presented in diverse formats and media in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.
	<b>11-12.2</b>	Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, assessing the stance, premises, links among ideas, word choice, points of emphasis, and tone used.
		Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
		Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
		Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.
	<b>9-10.4</b>	Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.
	<b>9-10.5</b>	Make strategic use of digital media in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.
<b>9-10.6</b>	Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.	
<b>11-12.4</b>	Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.	
<b>11-12.5</b>	Make strategic use of digital media in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.	
<b>11-12.6</b>	Adapt speech to a variety of contexts and tasks, demonstrating a command of formal English when indicated or appropriate.	

# Career Cluster: Agriculture, Food & Natural Resources



## Lesson Plan

**Class 1:** Begin class by having students brainstorm the list of possible careers found within the Agriculture, Food and Natural Resources Cluster. Distribute the *Career Cluster: Agriculture, Food & Natural Resources Worksheet*. Show the *Food Products & Processing Systems Pathway*, *Plant Systems Pathway* and *Animal Systems Pathway* segments. Students should fill in the *Worksheet* while viewing the segments.



24 min.

**Class 2:** Show the *Power, Structural & Technical Systems Pathway*, *Natural Resources Systems Pathway*, *Environmental Services Systems Pathway* and *Agribusiness Systems Pathway* segments. Students should fill in the *Worksheet* while viewing the segments.



26 min.

**Class 3:** Handout the *Career Comparison Project*. Remind students to use the *Worksheet* as a reference while completing the project. Allow time for students to work on their projects.

**Class 4:** Handout the *Career Cube Project*. Remind students to complete the writing portion of the *Career Cube Project* before cutting out the diagram and creating the cube. Allow time for students to work on their projects. Upon completion, have students discuss answers with the class.

**Class 5:** As a class or individually, allow time for students to explore the interviews found in the Agriculture, Food & Natural Resources category of the Career Exploration media site. Have students select their favorite interview and complete the *Career Interview Project*. More than one career could be chosen and multiple *Career Interview Project* handouts could be completed.



## Lesson Links

### O\*NET OnLine

- <http://www.online.onetcenter.org>

### Bureau of Labor Statistics

- <http://www.bls.gov>



## Career Connections

Numerous career interviews with business and industry professionals applicable to the Agriculture, Food and Natural Resources Cluster can be found on the Career Exploration media site. Each provide terrific insight and advice for students bringing the vast world of work and real-world application to the classroom.



## Projects

### Career Comparison Project

#### Directions:

Students should choose two careers discussed within the segments presented which interest them. Students should research salary requirements, career growth, travel and education requirements for the chosen careers, as well as write a short paragraph about why he or she finds the careers interesting.

### Career Cube Project

#### Directions:

Complete the six sides of the Career Cube for one of the careers chosen in the *Career Comparison Project*. Create the cube by cutting out the diagram, folding it on the lines and taping or gluing it together.

### Career Interview Project

#### Directions:

Utilizing the Career Interview Project Handout, have students complete the questions provided on the career interview selected.



**NOTE:** Each Pathway segment listed above has a corresponding Slide Series segment. Review these lessons either on the Career Exploration media site or the Educator's Resource Guide for blended-learning possibilities.