



# FFA Blue 365: Lesson 8

## Improving Lives — Part 2

Created: 12/2019 by the National FFA Organization

*The FFA Blue 365 lesson series is intended to bring innovative technology, science, research and entrepreneurship to the classroom. These lessons are designed to highlight the innovations and technologies transforming agriculture.*

### STUDENT LEARNING OBJECTIVES:

After completing these activities, students will ...

1. Identify common precautions to take when working in the agriculture industry.
2. Summarize common challenges facing farm safety in the United States.
3. Outline the basics of farm safety.
4. Evaluate strategies to help maintain a safe and secure working environment around the farm.
5. Facilitate a presentation regarding a farm safety issue.
6. List and strengthen safety strategies in the local classroom and/or shop.

**TIME REQUIRED:** 90 minutes

### RESOURCES:

1. Video: "Farm S.O.S Video Series — The Farm" (Ohio State University Extension Services, 2014), <https://youtu.be/69TjpUUFqaQ>
2. Video: "FFA Blue 365: Myths and Misconceptions of Pesticide Safety" by Reza Rasoulpour (2018), available at <https://vimeo.com/314344941>.
3. Video: "FFA Blue 365: Saving Water, Fuel, Labor and Time" by Rick Ekins (2018), <https://vimeo.com/314082126>
4. Website: "SAY Clearinghouse" (Safety in Agriculture for Youth [SAY], n.d.), <https://extension.psu.edu> or <https://extension.psu.edu/business-and-operations/farm-safety>
5. Website: "Farm S.O.S — Strategies on Safety" (Ohio State University Extension Services, 2014), <https://agsafety.osu.edu/programs/farm-sos-strategies-safety>
6. Website: United States Department of Labor (2019), <https://www.osha.gov/dsg/topics/agriculturaloperations/generalresources.html>
7. Website: National Ag in the Classroom (2019), <https://www.agclassroom.org/teacher/matrix/index.cfm>
8. Website: United States Department of Labor OSHA Publications (2019), <https://www.osha.gov/pls/publications/publication.athruz?pType=Types&pID=10413>
9. Website: "Agriscience Fair," (National FFA Organization, 2018), [ffa.org/participate/awards/agriscience-fair/](https://ffa.org/participate/awards/agriscience-fair/)
10. Website: AgExplorer (2018), [AgExplorer.ffa.org](https://AgExplorer.ffa.org)
11. Website: AgriKids (2016), <https://www.agrikids.ie/>
12. Website: "Living to Serve Grants" (National FFA Organization, 2019), [ffa.org/livingtoserve/grants/](https://ffa.org/livingtoserve/grants/)
13. Website: "Service Planning Guide" (National FFA Organization, 2019) <https://ffa.app.box.com/s/9969na39x2qdvy70olfadu3dj1uxae6m>
14. Infographic generation tools:
  - a. Piktochart (2018), <https://piktochart.com/formats/infographics/>
  - b. Canva (2018), <https://www.canva.com>

### EQUIPMENT AND SUPPLIES NEEDED:

1. Internet access to play the videos in real time or embed them in a PowerPoint
2. A copy of the "Challenges to Agricultural Safety" worksheet for each student
3. A copy of the "Basics of Farm Safety" worksheet for each student
4. A copy of the "Strategies to Strengthen Farm Safety" worksheet for each student
5. A copy of the "Takeaways from Teaching Safety Strategies" worksheet for each student
6. Colored pens or markers
7. Blank paper

### **THIS QUICK LESSON PLAN WOULD WORK WELL AS AN:**

1. Introduction to critical issues in agriculture.
2. Introduction to innovations in agriculture.
3. Introduction to technology in agriculture.
4. Introduction to power, structural and technical systems in agriculture.

### **STUDENT ACTIVITY SHEETS**

<https://ffa.box.com/s/rq21dgxotg3pv0l97ip8jrjy24lwbngq> (Word)

<https://ffa.box.com/s/1tzv6fssxcctdh3uhjv0fdvhly9apv5f> (PDF)

### **THESE ACTIVITIES ARE ALIGNED TO THE FOLLOWING STANDARDS:**

#### *AFNR Performance Element*

- CS.01. Analyze how issues, trends, technologies and public policies impact systems in the Agriculture, Food & Natural Resources Career Cluster.
- CS.02. 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.
- CS.03. Examine and summarize the importance of health, safety and environmental management systems in AFNR workplaces.
- 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.CS-M.Communication. Effectively interact with others in personal and professional settings.

#### *Common Career Technical Core*

- AG1. Analyze how issues, trends, technologies and public policies impact systems in the Agriculture, Food & Natural Resources Career Cluster.
- AG2. 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.
- AG3. Examine and summarize the importance of health, safety, and environmental management systems in AFNR businesses.
- AG5. Describe career opportunities and means to achieve those opportunities in each of the Agriculture, Food & Natural Resources Career Pathways.

#### *NASDCTEc*

- AGC08.01. Demonstrate workplace ethics specific to AFNR occupations in order to reflect effective stewardship of resources.
- AGC09.01. Explain written organizational policies, rules and procedures common to AFNR workplaces to ensure employees perform job functions effectively.
- AGC10.03. Compare and contrast issues affecting the AFNR industry including biotechnology, employment, safety, environmental and animal welfare to demonstrate an understanding of the trends and issues important to careers in this industry.

#### *Common Core – Reading: Informational Text*

- CCSS.ELA-Literacy.RI.9-10.1. Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- CCSS.ELA-Literacy.RI.9-10.2. Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.

#### *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.

- CCSS.ELA-Literacy.SL.9-10.2. Integrate multiple sources of information presented in diverse media or formats (e.g., visually, quantitatively, orally) evaluating the credibility and accuracy of each source.
- CCSS.ELA-Literacy.SL.9-10.4. 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.

#### *Common Core – Science & Technical Subjects*

- CCSS.ELA-Literacy.RST.9-10.1. Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.
- CCSS.ELA-Literacy.RST.9-10.8. Assess the extent to which the reasoning and evidence in a text support the author's claim or a recommendation for solving a scientific or technical problem.

#### *Common Core – Literacy in Science & Technical Subjects: Writing*

- CCSS.ELA-Literacy.WHST.9.10.6. 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.

#### *Next Generation Science*

- HS-ETS1-3. Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts.

#### *Green/Sustainability Knowledge and Skill Statements*

- AFNR Career Cluster, Statement 2. Analyze community practice or policy development related to sustainability in AFNR.

#### *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.05. Consider the environmental, social and economic impact of decisions. Career-ready individuals understand the interrelated nature of their actions and regularly make decisions that positively impact and/or mitigate negative impact on other people, organizations and the environment.
- CRP.06. Demonstrate creativity and innovation. Career-ready individuals regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization.
- 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.

#### *Partnership for 21<sup>st</sup> Century Skills*

- Communication
- Critical Thinking and Problem Solving
- Global Awareness
- Information, Communications, and Technology Literacy
- Initiative and Self-Direction
- Think Creatively

#### **LESSON PLAN:**

1. **Bel Ringer:** Agriculture sustains life. Efficient and effective agricultural systems provide access to food, fiber and natural resources. The agriculture industry also improves lives by providing sustainable solutions to critical challenges.
  - a. To understand how agriculture can improve lives, it is important to investigate the precautions people involved in agriculture should take to be safe when working in or around the industry.
    - i. Hand out the "Challenges to Agricultural Safety" worksheet, and encourage students to brainstorm the different ways agriculture can improve lives across the world.
      1. Questions included in the worksheet:
        - a. Define each of the agricultural sectors below. List and describe different components that comprise each sector.

- b. Brainstorm possible challenges individuals involved in the agriculture industry might face regarding safety.
    - c. Using the Safety in Agriculture for Youth (SAY; n.d.) "SAY Clearinghouse" website, available at <https://extension.psu.edu>, or other resources, research common risks, resources, and strategies associated with your selected agricultural sector.
    - d. Think about your school or your community. Does your selected safety topic relate to your classrooms, labs, sports teams, clubs, etc.? If so, what strategies would you suggest your school or community implement to promote safety awareness?
  - ii. As a class, discuss the various ways living in a safe environment can help the agriculture industry improve lives.
2. **Introduction:** Agriculture is one of the most dangerous industries in the world. With the potential of being exposed to a large variety of livestock animals, machinery, pesticides, confined spaces, foodborne illnesses, etc., living on or around a farm has several unique hazards.
  - a. The agriculture industry can improve lives by continually improving safety protocols to keep workers safe.
  - b. As seen in the activity above, agricultural safety is not limited to the farm but can be a good place to start when investigating strategies to stay safe when working in agriculture.
    - i. Watch the Ohio State University Extension Services' (2014) video "Farm S.O.S Video Series — The Farm." The video can be accessed at <https://youtu.be/69TJpUUFqaQ>.
      1. *Optional:* If YouTube is not available, have students visit the Ohio State University Extension Agricultural Safety and Health Program (2014) website, available at <https://agsafety.osu.edu/programs/farm-sos-strategies-safety>.
      2. *Note:* If you want to access lesson plans on farm safety from this website, you will need to contact the content creators to request the free materials.
    - ii. Within agriculture, there are several challenges to living on a farm. The Ohio State University Extension Agricultural Safety and Health Program (2014) website identified several safety precautions to use when working in and around agricultural production or a farm. Visit <https://agsafety.osu.edu/programs/farm-sos-strategies-safety>, and scroll to the bottom of the page to find other the highlighted videos.
      1. *Note:* If you want to access lesson plans on farm safety from this website, you will need to contact the content creators to request the free materials.
    - iii. Have students discuss common precautions people should take when working on or around a farm or farm machinery.
3. **Part 1: Basics of Farm Safety**
  - a. Being safe around agricultural operations requires knowing the basics of farm safety. Cautious and aware people also understand why it is important to be cautious around the farm because they are able to describe the impacts of safety on lifestyles.
  - b. Because the agriculture industry is so broad, understanding all of the safety precautions can be challenging. As such, it is important to understand where to access resources regarding farm safety.
    - i. Have students visit the United States Department of Labor's agricultural operations resources website (2019) at <https://www.osha.gov/dsg/topics/agriculturaloperations/generalresources.html>.
    - ii. Several additional resources are available online to access training documents and farm safety strategies. Students can use additional online resources if time allows.
      1. Potential additional resources:
        - a. National Ag in the Classroom (<https://www.agclassroom.org/teacher/matrix/index.cfm>)
        - b. the Ohio State University "Farm S.O.S — Strategies on Safety" website (<https://agsafety.osu.edu/programs/farm-sos-strategies-safety>)
        - c. Safety in Agriculture for Youth (SAY) "SAY Clearinghouse" website: <https://extension.psu.edu/business-and-operations/farm-safety>
        - d. United States Department of Labor OSHA Publications (<https://www.osha.gov/pls/publications/publication.athruz?pType=Types&pID=10413>)
      2. Complete the "Basics of Farm Safety" worksheet.
        - a. Questions included in the worksheet:
          - i. Within agriculture, there are several risks associated with working on or around a farm. Using the United States Department of Labor's agricultural operations resources website (2019) as a reference, brainstorm different risks associated with working on a farm and provide at least three safety strategies for overcoming each risk.
          - ii. Did you notice any similarities in the farm safety strategies for overcoming the risks of working on or around a farm? If so, what similarities did you notice?
          - iii. Of the different risks associated with working on a farm, what risk do you

- think is the most relevant to your local community? Why?
- iv. What is the value of studying strategies to promote farm safety? What if someone does not live or work on a farm — what is the value of studying farm or agricultural safety if you do not live or work on a farm?
3. Discuss farm safety basics and resources promoting farm safety. If time permits, allow students to post their responses on the white board or on a poster.
4. *Part 2: Strategies to Strengthen Farm Safety*
    - a. There are a wide variety of strategies to overcome risks associated with working on or around a farm.
      - i. Because so many farm precautions exist, it is valuable to investigate different farm safety techniques in depth to protect health, mentality and revenue on the farm.
        1. Use the "Strategies to Strengthen Farm Safety" worksheet to guide lesson development.
          - a. Questions included in the worksheet:
            - i. What is your selected risk?
            - ii. Describe the background information associated with this farm risk. What makes it a risk? What research exists about its influence on the agriculture industry?
            - iii. Farm risks can often influence health, mentality and/or revenue on a farm. What potential impacts are associated with your selected risk? List them in the diagram.
            - iv. List and illustrate the safety protocol steps that should be taken to prevent or mitigate this risk.
            - v. What careers exist to carry out these safety protocol steps? Visit AgExplorer ([AgExplorer.ffa.org](http://AgExplorer.ffa.org)) to explore career possibilities.
        2. Discuss the impact of different farm risks and strategies for ensuring safety on the farm.
5. *Part 3: Teaching Farm Safety*
    - a. Adhering to farm safety procedures requires understanding potential hazards and threats in your classroom, shop or school environment.
      - i. One of the best ways to learn safety protocol is to teach it.
        1. Have students get into groups of two or three.
          - a. Encourage students to select one of the strategies they investigated in the previous activity to teach the class. If students want to use each of their strategies, encourage them to find a connection in the strategies before they teach it to the class.
          - b. Allow 15 to 20 minutes for each group to prepare a five- to eight-minute lesson to teach.
6. *Follow-up:* Following each presentation, have students complete a takeaway page from each topic. Encourage students to think critically about how they interpret their peers' safety lessons.
    - a. Complete the "Takeaways from Teaching Safety Strategies" worksheet.
      - i. Questions included in the worksheet:
        1. What was the farm risk presented?
        2. Briefly list the background, impact and strategies to mitigate the risk.
        3. What was the biggest takeaway from each presentation?
7. *Leveling Up:*
    - a. "Agriscience Fair Project":
      - i. Read the overview and rules for the National FFA Agriscience Fair at [FFA.org/participate/awards/agriscience-fair/](http://FFA.org/participate/awards/agriscience-fair/).
      - ii. Identify a need within one of the six agriscience fair categories: animal systems; environmental service/natural resource systems; food products and processing systems; plant systems; power, structural and technical systems; and social science.
      - iii. Using the key elements of improving lives as a framework, the National FFA Agriscience Fair handbook and online resources, prepare an agriscience fair project to investigate the identified need.
    - b. "Art Gallery" or "Public Campaign Display":
      - i. Invite other teachers or community members to share ideas for how agriculture can improve lives through safety protocols in schools and communities.
      - ii. Connect with existing school events to get others involved. For example, post art projects in the lobby of the school during sporting events or invite presentations on each campaign during FFA chapter or alumni meetings.
    - c. "Careers Guest Speaker":
      - i. Identify what types of careers can relate to improving lives. What types of careers support the mission of bettering lives through agricultural safety?

1. Visit AgExplorer ([AgExplorer.ffa.org](http://AgExplorer.ffa.org)) and review the career focus areas for ideas.
  - ii. As a class, select someone from the community who has a career that contributes to improving lives through agriculture. Ask the individual to speak to the class to share details about his or her career.
    1. It might be helpful to refer this task to a class committee to select a speaker.
  - iii. Encourage students to research the speaker's bio and business/company/school and prepare two to three questions for the speaker prior to his or her arrival.
  - d. "Agricultural Safety" Symposium:
    - i. Have groups of students prepare various presentations on agricultural safety issues.
    - ii. Prepare a symposium displaying various safety issues to share with the rest of the school and/or with a neighboring elementary or middle school.
      1. Visit <https://www.agrikids.ie/> for online youth farm safety lessons.
  - e. "Four Stages of Innovation" Model:
    - i. Using the "Blue 365: Four Stages of Innovation" lesson plan, have students apply the four stages of innovation model to one safety strategy for agriculture to improve lives.
    - ii. In what ways could the four stages help raise awareness of the issue?
  - f. "Living to Serve" platform:
    - i. Encourage students to look through available grants for service plans related to safety. See links below:
      1. Living to Serve Grants from National FFA: [FFA.org/livingtoserve/grants/](http://FFA.org/livingtoserve/grants/)
      2. Planning Guide: <https://FFA.app.box.com/s/9969na39x2qdv70olfadu3dj1uxae6m>
  - g. "School or Community Service" Project:
    - i. Identify a need on the school campus or in the community related to improving safety protocols.
    - ii. Organize a community or school drive to help address that need in the local community.
  - h. "Ted Talk" Oral Presentations:
    - i. Watch the "Blue 365" (2018) video from Reza Rasoulpour, Leader of Global Regulatory for Corteva, on "Myths and Misconceptions of Pesticide Safety," available at <https://vimeo.com/314344941>.
    - ii. Watch the "Blue 365" (2018) video from Rick Ekins with FMC on "Saving Water, Fuel, Labor and Time," available at <https://vimeo.com/314082126>.
      1. Select one video to watch.
      2. Using techniques and points from the selected speaker, develop a 12- to 15-minute Ted Talk-style oral presentation to deliver to the class about an issue related to safety and/or improving lives.
        - a. If possible, set the classroom up around a center stage to allow students to speak as if they were giving a real Ted Talk.
  - i. "Written Report":
    - i. Watch the "Blue 365" (2018) video from Reza Rasoulpour, Leader of Global Regulatory for Corteva, on "Myths and Misconceptions of Pesticide Safety," available at <https://vimeo.com/314344941>.
    - ii. Watch the "Blue 365" (2018) video from Rick Ekins with FMC on "Saving Water, Fuel, Labor and Time," available at <https://vimeo.com/314082126>.
      1. Select one video to watch.
      2. Using techniques and points from the selected speaker, prepare an eight- to 10-page written report analyzing opportunities to improve lives through agricultural safety. Students should be sure to highlight the following:
        - a. What elements do they discuss in their presentation that highlight how the agriculture industry is improving lives through safety protocols?
        - b. What challenges does agriculture face in terms of safety?
        - c. What can be done to help improve lives in the future using the agriculture industry?
- 8. Exit Ticket:** With a partner, discuss what safety strategies stood out the most in all of the presentations. Incorporating safety protocols takes time and attention to detail. Safety conversations should be a part of each lesson. Encourage students to evaluate their actions in their other classes and in future agriculture classes to identify safety strategies.
- a. Discuss insights with the class or create a landing board for students to share ideas.



NAME: \_\_\_\_\_

Aligned to the following standards:

CS.01; CS.02; CS.03; CS.05; FFA.PL-A; FFA.PL-C; FFA.PL-E; FFA.CS-M; AG1; AG2; AG3; AG5; AGC08.01; AGC09.01; AGC10.03; CCSS.ELA.RI.9-10.1; CCSS.ELA.RI.9-10.2; CCSS.ELA.SL.9-10.1; CCSS.ELA.SL.9-10.2; CCSS.ELA.SL.9-10.4; CCSS.ELA.RST.9-10.1; CCSS.ELA.RST.9-10.8; CCSS.ELA.WHST.9.10.6; HS-ETS1-3; AFNR Career Cluster, Statement 2; CRP.02; CRP.04; CRP.05; CRP.06; CRP.07; CRP.08

# Challenges to Agricultural Safety

## DIRECTIONS:

Agriculture sustains life. Efficient and effective agricultural systems provide access to food, fiber and natural resources. The agriculture industry also improves lives by providing sustainable solutions to critical challenges. To understand how agriculture can improve lives, it is important to investigate the precautions people involved in agriculture should take to be safe when working in or around the industry.

Complete the following:

- Think critically about what the agriculture industry is and does.
- Brainstorm possible challenges individuals involved in the agriculture industry might face regarding safety.
- Record your responses below.

Define each of the agricultural sectors below. List and describe different components that comprise each sector.

|                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |  |  |
| <b>Food</b><br>i.e., production, grocery items, etc.                              | <b>Fiber</b><br>i.e., clothing, manufacturing, etc.                               | <b>Natural Resources</b><br>i.e., clean water, conservation, etc.                 | <b>Nutrition</b><br>i.e., utilization of nutrients, vitamin absorption, etc.       | <b>Energy</b><br>i.e., fossil fuels, wind energy, etc.                              |

Brainstorm possible challenges individuals involved in each agricultural sector might face regarding safety.

## Food



## Fiber



## Natural Resources



## Nutrition



## Energy



Agricultural safety is not limited to the farm. With the potential of being exposed to a large variety of livestock animals, machinery, pesticides, confined spaces, foodborne illnesses, etc., being involved in agriculture has several unique hazards. Select one of the five agricultural sectors — food, fiber, natural resources, nutrition or energy — and answer the questions below.

**Agricultural sector selected:** \_\_\_\_\_

Using the Safety in Agriculture for Youth (SAY; n.d.) "SAY Clearinghouse" website, available at <https://extension.psu.edu>, or other resources, research common risks, resources and strategies associated with your selected agricultural sector's safety topic.

For example, if you are investigating food safety:

1. A **common risk** could be foodborne illnesses.
2. A **helpful resource** could be the Center for Disease Control's website on "Foodborne Illnesses," available at [https://www.cdc.gov/food-safety/about/?CDC\\_AAref\\_Val=https://www.cdc.gov/foodsafety/foodborne-germs.html](https://www.cdc.gov/food-safety/about/?CDC_AAref_Val=https://www.cdc.gov/foodsafety/foodborne-germs.html).
3. **Safety strategies** could be washing produce before cooking or using different knives for fresh food and meats.

| Common Risks | Helpful Resources | Safety Strategies |
|--------------|-------------------|-------------------|
|              |                   |                   |

Think about your school or your community. Does your selected safety topic relate to your classrooms, labs, sports teams, clubs, etc.? If so, what strategies would you suggest your school or community implement to promote safety awareness?



NAME: \_\_\_\_\_

Aligned to the following standards:

CS.01; CS.02; CS.03; CS.05; FFA.PL-A; FFA.PL-C; FFA.PL-E; FFA.CS-M; AG1; AG2; AG3; AG5; AGC08.01; AGC09.01; AGC10.03; CCSS.ELA.RI.9-10.1; CCSS.ELA.RI.9-10.2; CCSS.ELA.SL.9-10.1; CCSS.ELA.SL.9-10.2; CCSS.ELA.SL.9-10.4; CCSS.ELA.RST.9-10.1; CCSS.ELA.RST.9-10.8; CCSS.ELA.WHST.9.10.6; HS-ETS1-3; AFNR Career Cluster, Statement 2; CRP.02; CRP.04; CRP.05; CRP.06; CRP.07; CRP.08

# Basics of Farm Safety

## DIRECTIONS:

Agriculture is one of the most dangerous industries in the world. With the potential of being exposed to a large variety of livestock animals, machinery, pesticides, confined spaces, etc., living on or around a farm has several unique hazards. The agriculture industry can improve lives by continually improving protocols to keep workers safe. Agricultural safety is not limited to the farm but can be a good place to start when investigating strategies to stay safe.

Complete the following:

- Visit the United States Department of Labor's agricultural operations resources website (2019) at <https://www.osha.gov/dsg/topics/agriculturaloperations/generalresources.html>.
  - a. Several additional resources are available online for agricultural or farm safety strategies. If time allows, review these websites for additional information:
    - i. National Ag in the Classroom website: (<https://www.agclassroom.org/teacher/matrix/index.cfm>)
    - ii. Ohio State University "Farm S.O.S — Strategies on Safety" website: (<https://agsafety.osu.edu/programs/farm-sos-strategies-safety>)
    - iii. Safety in Agriculture for Youth (SAY) "SAY Clearinghouse" website: <https://extension.psu.edu/business-and-operations/farm-safety>
    - iv. United States Department of Labor OSHA Publications website: (<https://www.osha.gov/pls/publications/publication.athruz?pType=Types&pID=10413>)
- Using the information provided, record your answers below.

Within agriculture, there are several risks associated with working on or around a farm. Using the United States Department of Labor's agricultural operations resources website (2019) as a reference, brainstorm different risks associated with working on a farm and provide at least three safety strategies for overcoming each risk.



Did you notice any similarities in the farm safety strategies for overcoming the risks of working on or around a farm? If so, what similarities did you notice?

Of the different risks associated with working on a farm, what risk do you think is the most relevant to your local community? Why? Do they create a risk for other people outside of the employees on the farm? If so, how?

What is the value of studying strategies to promote farm safety? Consider those who do not live or work on a farm (maybe that is you), and provide three reasons why studying farm or agricultural safety would be valuable.



NAME: \_\_\_\_\_

Aligned to the following standards:

CS.01; CS.02; CS.03; CS.05; FFA.PL-A; FFA.PL-C; FFA.PL-E; FFA.CS-M; AG1; AG2; AG3; AG5; AGC08.01; AGC09.01; AGC10.03; CCSS.ELA.RI.9-10.1; CCSS.ELA.RI.9-10.2; CCSS.ELA.SL.9-10.1; CCSS.ELA.SL.9-10.2; CCSS.ELA.SL.9-10.4; CCSS.ELA.RST.9-10.1; CCSS.ELA.RST.9-10.8; CCSS.ELA.WHST.9.10.6; HS-ETS1-3; AFNR Career Cluster, Statement 2; CRP.02; CRP.04; CRP.05; CRP.06; CRP.07; CRP.08

# Strategies to Strengthen Farm Safety

## DIRECTIONS:

There are a wide variety of strategies to overcome risks associated with working on or around a farm. Because so many farm precautions exist, it is valuable to investigate different farm safety techniques in depth to protect health, mentality and revenue on the farm.

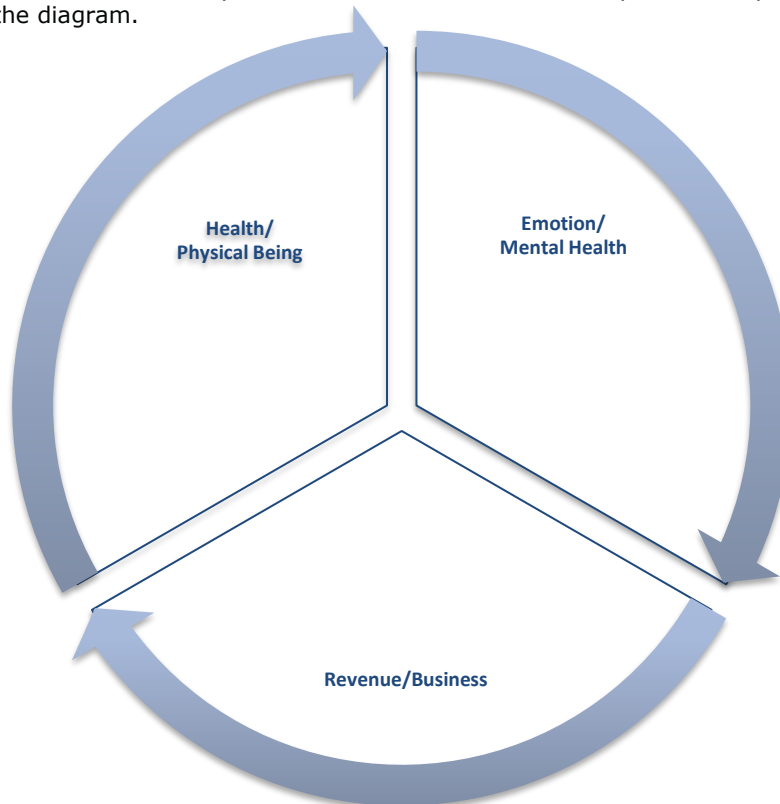
Complete the following:

- Refer to the brainstorm map from the previous handout, and select one farm risk to investigate in more depth.
- Visit the United States Department of Labor's agricultural operations resources website (2019) at <https://www.osha.gov/dsg/topics/agriculturaloperations/generalresources.html>.
  - a. Several additional resources are available online for farm safety strategies. If time allows, review these websites for additional information:
    - i. National Ag in the Classroom website: (<https://www.agclassroom.org/teacher/matrix/index.cfm>)
    - ii. Ohio State University "Farm S.O.S — Strategies on Safety" website: (<https://agsafety.osu.edu/programs/farm-sos-strategies-safety>)
    - iii. United States Department of Labor OSHA Publications website: (<https://www.osha.gov/pls/publications/publication.athruz?pType=Types&pID=10413>)
- Using the online (or print, if applicable) resources, research the selected farm risk and record answers below.

**Selected farm risk:** \_\_\_\_\_

Describe the background information associated with this farm risk. What makes it a risk? What research exists about its influence on the agriculture industry?

Farm risks can often influence health, mentality and/or revenue on a farm. What potential impacts are associated with your selected risk? List them in the diagram.



NAME: \_\_\_\_\_

List and illustrate the safety protocol steps that should be taken to prevent or mitigate this risk.

What careers exist to carry these safety protocol steps out? Visit AgExplorer ([AgExplorer.ffa.org](https://AgExplorer.ffa.org)) to explore possibilities.

NAME: \_\_\_\_\_

# Takeaways from Teaching Safety Strategies

**DIRECTIONS:**

The best way to learn safety strategies is to investigate multiple ways to promote safety on the farm. Think critically about your classmates’ safety strategy presentations.

- Complete the following:
- Following each presentation, capture takeaways from the strategies taught by your classmates.
  - Record responses below.

Farm risk(s) presented: \_\_\_\_\_

| Background of the Risk: | Impact of the Risk: | Strategies to mitigate risk: |
|-------------------------|---------------------|------------------------------|
|                         |                     |                              |

What was the biggest takeaway from this lesson?

Farm risk(s) presented: \_\_\_\_\_

| Background of the Risk: | Impact of the Risk: | Strategies to mitigate risk: |
|-------------------------|---------------------|------------------------------|
|                         |                     |                              |

What was the biggest takeaway from this lesson?