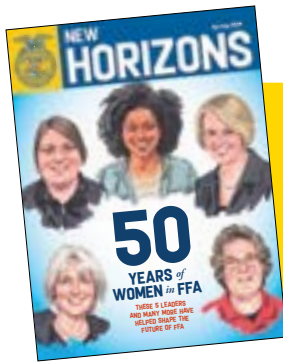




NEW HORIZONS

SPRING 2019 TEACHING GUIDE



IN THIS GUIDE, YOU WILL FIND ACTIVITIES FOR SIX ARTICLES IN THE SPRING 2019 ISSUE OF FFA NEW HORIZONS. WORKSHEET ANSWER KEYS CAN BE FOUND AT THE END OF THE ACTIVITY WORKSHEET. THE ACTIVITIES ARE ALIGNED TO EDUCATIONAL STANDARDS. (SEE EACH ACTIVITY FOR THE SPECIFIC STANDARDS.)

SCHOLARS SAY...

A compiled list of discipline-specific or academic vocabulary found throughout this issue of FFA New Horizons:

Distinguished
Multiple Sclerosis
Temperament
Humbled
Generosity
Antibiotic
Dewormer
Elusive
Microchip
Parasite
Veterinarian
Acre

Environment
Herbs
Tillable
Leader
Membership
Pioneer
Contract
Niche
Configuration
Conservation
Natural resource
Waterways
Wetlands

VOCABULARY ACTIVITY

Divide the class into two groups. Send a representative from each group to the board and read the definition for one vocabulary word. The first student to write the correct word (answer) on the board gets a point.



Service for Service:

The Center FFA Chapter in Center, N.D. help to connect a service animal with a local veteran.

[Appendix 1 – Service for Service](#)



Lions and Tigers and Rhinos, Oh My!:

Students travel to Africa and gain hands on skills working with large animals.

[Appendix 2 – Lions and Tigers and Rhinos, Oh My!](#)



Grow in the City:

Farming is not always a vast field in the middle of nowhere. In Maryland, students are learning about growing food in downtown Baltimore.

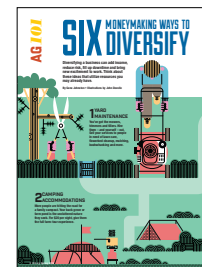
[Appendix 3 – Plants Are Amazing!](#)



Let's Celebrate Women in FFA!:

Women joined FFA in 1969 and have been making a lasting impact ever since.

[Appendix 4 – Female Leadership](#)



Ag 101 – 9 Money Making Ways to Diversify:

This quick read has tips on how to diversify a business or project.

[Appendix 5: Ag 101](#)



Water Quality:

Learn why water quality and water conservation are important to agriculture and how Purina focuses some of its efforts on these issues.

[Appendix 6 – Water Quality](#)



NEW HORIZONS

SPRING 2019 TEACHING GUIDE



ARTICLE SUMMARY

Service for Service

Learn how the Center FFA Chapter in Center, N.D. worked with a local group to help connect a service dog with a local veteran. In addition to connecting the service dog with a partner, they helped raise funds to purchase care package items for the new animal owner.

BELL RINGER:

Brainstorm with a nearby classmate ways a service animal helps their human partner. Be prepared to share your responses.

DISCUSSION QUESTIONS

1. What is the definition of a "service" animal?
2. What are the requirements for a dog (or animal) to be considered a "service" animal?
3. What supplies do you need to properly care for a service animal?

ACTIVITY

Students should first complete the bell ringer activity listed above. Allow students five minutes to discuss possible answers with their seat partner. After five minutes has passed, have groups share their answers.

Next, have students read the article "Service for Service." Students should then complete the worksheet "Service for Service" (Appendix 1). (Internet access is required for this activity.) The worksheet has two parts: (1) Students will brainstorm items that should be included in a puppy care package, price those items and explain why they chose those items, and (2) students will explore and research the importance of animal behavior and how to properly train a dog to be safe around people.

When students have finished the worksheet, have students complete the exit ticket.

FFA TIP

Have your students host a wellness day during finals week. Contact your local Guide Dogs of America (or any service/therapy animal service) and plan a day where students can interact with puppies to relieve some stress.

Call a local place that students have interest in volunteering at (nursing home, animal shelter, or daycare) to see if they have availability. Set up time for students to volunteer at the selected location.

SAE TIP

Raising and training service animals can be a rewarding SAE and require little to no financial investment. This type of SAE can be done by students in many different living situations including urban, suburban and rural. Look for an organization in your area that seeks people to socialize with the animal and begin their training as service animals.

VOCABULARY

Distinguished
Multiple Sclerosis
Temperament
Humbled
Generosity

EXIT TICKET

Have students answer the following on their notebook paper:

- 1) What are three things you learned from this lesson?
- 2) What are two things you found interesting?
- 3) What is one question you have after this lesson?

CAREER FOCUS AREA

Animal Systems

RELATABLE WEBSITE

Tractor Supply: <https://www.tractorsupply.com/know-how/pets-livestock/pet-care>

Dogs on Deployment: <http://www.dogson-deployment.org/>

RESOURCE HIGHLIGHT

Visit the FFA Living to Serve Grants website to learn about the variety of grants available. [FFA.org/livingtoserve/grants/](https://www.ffa.org/livingtoserve/grants/)

APPENDICIES

Appendix 1: Service for Service

STANDARDS ALIGNMENT

• **AFNR Performance Element:** CS.02, CS.05 • **FFA Precepts:** FFA.PL-A, FFA.PL-C, FFA.PL-D, FFA.PL-E, FFA.PL-F, FFA.CS-N • **Common Core - Reading: Information Text:** CCSS.ELA-LITERACY.RI.9-10.4 • **Common Career Technical Core:** AG2, AG5 • **Common Core-Speaking and Listening:** CCSS.ELA-LITERACY.SL.9-10.2 • **Common Core-Writing:** CCSS.ELA-LITERACY.W.9-10.4 • **AFNR Career Ready Practices:** CRP04, CRP06 • **P21 Skills:** COMMUNICATION, CRITICAL THINKING AND PROBLEM SOLVING, INITIATIVE AND SELF-DIRECTION

The Center FFA Chapter placed a service dog with veteran Sergio Cuevas (shown bottom right).



PREMIER *leadership*

Service for SERVICE

MEMBERS FROM NORTH DAKOTA HELP
CONNECT A DECORATED VETERAN
WITH A FURRY COMPANION.

Through the Patriotic Puppy Project, the Center FFA Chapter came together and rallied its small North Dakota community to help change a veteran's life.

The project began when Nikki Fideldy-Doll, the Center FFA Chapter advisor and agriculture teacher at Center-Stanton Public School in Center, N.D., saw a Facebook post from Mindy Weist, who owns Distinguished Danes – a Great Dane breeding operation – with her husband. In the post, Weist indicated she would like to donate one of her Great Dane puppies to a veteran in need. Fideldy-Doll immediately thought of her FFA chapter and how the members could get involved.

"Mindy had visited my animal science class in the past, so we already had a relationship," Fideldy-Doll

says. "I reached out and asked if we could help her once she found a veteran, and she was happy to have us on board. At the time, we had no idea how successful and impactful this project would be."

A PERFECT FIT

In early 2018, Weist found a veteran, Sergio Cuevas, a New Mexico resident and Purple Heart recipient who served in the U.S. Army for nine years before being medically discharged due to a multiple sclerosis diagnosis.

"Great Danes are wonderful service dogs due to their large size and temperament, and I knew Sergio would be a great owner," Weist says. "He was a perfect fit for this project."

Weist connected Fideldy-Doll and Cuevas, and the Center FFA quickly got to work raising funds to create a puppy care package for Cuevas. Over the course of



“GREAT DANES ARE WONDERFUL SERVICE DOGS DUE TO THEIR LARGE SIZE AND TEMPERAMENT, AND I KNEW SERGIO WOULD BE A GREAT OWNER. HE WAS A PERFECT FIT FOR THIS PROJECT.”

– MINDY WEIST

two months, FFA members raised \$180 in cash donations and received a variety of supplies from classmates, teachers and the community – dog treats, food and toys, for example – which was far more than they were expecting.

"We live in a very small town, and our school only has about 100 students," Fideldy-Doll says. "But our FFA members worked hard, and I think the Patriotic Puppy Project showed them that a small group of people in a little town can actually make a huge impact on someone else's life."

When Cuevas came to North Dakota to pick up his puppy, he also visited Center-Stanton Public School and met the Center FFA members, who Fideldy-Doll says were excited to give him their care package in person. He was excited to meet them, too, and continues to be humbled by their generosity.

– By Jessica Walker Boehm

NAME: _____

Aligned to the following standards:
FFA.PL-A.; FFA.PL-C.; FFA.PL-D.; FFA.PL-E.; FFA.PL-F.
FFA.CS-N; CCSS.ELA-Literacy.SL.9-10.2; CCSS.ELA-Literacy.W.9-10.4; CCSS.ELA-Literacy.RI.9-10.4; CRP.04; CRP.06, AG2, AG5

Appendix 1: Service for Service

Created: Spring 2019 by the National FFA Organization

DIRECTIONS:

Read the "Service for Service" article in the Spring 2019 issue of *FFA New Horizons*. Answer the questions below.

Part 1

In the article, it mentions the FFA chapter raised funds to create a puppy care package for the new owner.

1. What items should be included in a puppy care package? *Identify 3. (Refer to the article.)*



2. Go to the Tractor Supply website (www.tractorsupply.com) and find the items you listed for question 1. Record the prices below and explain why you chose those products.



\$_____ **Why?** (*Answer below.*)



\$_____ **Why?** (*Answer below.*)

NAME: _____

Aligned to the following standards:
FFA.PL-A.; FFA.PL-C.; FFA.PL-D.; FFA.PL-E.; FFA.PL-F.
FFA.CS-N; CCSS.ELA-Literacy. SL.9-10.2; CCSS.ELA-Literacy.W.9-10.4; CCSS.ELA-Literacy.RI.9-10.4; CRP.04; CRP.06, AG2, AG5



\$ _____

Why? (*Answer below.*)

Part 2

1. Behavior is not only key for service dogs, but for at-home pets as well. Why is behavior/obedience important for animals?

2. What are some important behaviors that should be included in behavior/obedience training for a dog? (Write answers in the three boxes below.)



NAME: _____

Aligned to the following standards:
FFA.PL-A.; FFA.PL-C.; FFA.PL-D.; FFA.PL-E.; FFA.PL-F. FFA.CS-N;
CCSS.ELA-Literacy. SL.9-10.2; CCSS.ELA-Literacy.W.9-10.4;
CCSS.ELA-Literacy.RI.9-10.4; CRP.04; CRP.06, AG2, AG5

3. Follow this link <https://www.tractorsupply.com/learn-how/pets-livestock/dog-how-to-train-a-dog-for-obedience-training.html> to learn more about obedience training for dogs. Answer the prompts below.

How do you train your dog to be safer around people and in the outdoors?

4. What are three tips for how to start training a dog?



What community service-related activities can your chapter/school do with pets (dogs, cats, etc.)?

Part 3

Reference the "Dogs on Deployment" section on the Tractor Supply website, <https://www.tractorsupply.com/learn-how/pets-livestock/pet-care>, to answer the question below.

1. How do dogs provide support to military members?

In need of funding for a community service project idea? Check out the FFA Living to Serve grants [FFA.org/livingtoserve/grants/](https://www.ffa.org/livingtoserve/grants/)





ARTICLE SUMMARY

Lions and Tigers and Rhinos, Oh My!

Students travel to Africa and gain hands on skills working with large animals.

BELL RINGER:

Imagine you were traveling to Africa to work with the wild animals. Identify five safety guidelines you might have to follow to ensure you, your colleagues, and the animals do not become sick or injured.

DISCUSSION QUESTIONS

1. Why is safety important when working with animals?
2. What kind of training would you need to work with large animals in Africa?
3. How can the skills learned in Africa be applied in the United States when working with small, exotic and large animals?

ACTIVITY

Students should first complete the bell ringer activity listed above on their own paper. Once all students have written down an answer, have them discuss and explain their answers with their neighbors. After five minutes, call on a few groups to share their answers. Generate a list together.

Have students read the article "Lions and Tigers and Rhinos, Oh My!" This activity is divided into three parts: (1) After reading the article, students will first learn about the differences among chemical, physical and biological hazards that can be present in the workplace (internet required) (Appendix 2), and (2) students will then select one of the three hazard categories and create a brochure that can be used to educate others. Once they have finished their brochure, students will share with other groups and complete their chart for the different hazards. (3) After completing their chart, students should use their chart to determine the hazard present in each of the scenarios. Lastly, students will determine the types of hazards that could have occurred in Africa during the FFA student trip that they read about.

FFA TIP

Encourage students to participate in the veterinary science career development event to gain hands on experience and knowledge in the area of veterinary medicine.

Students can volunteer at your local animal shelter or veterinarian office to gain experience taking care of a wide range of different animals.

SAE TIP

Is there a zoo, wildlife reserve or animal sanctuary, public or private, in your area? If not, contact your local city, county or state government about animal shelters in your area to establish a relationship and create a source of potential SAEs for your students. Students can do unpaid or paid placement SAEs managing and caring for the animals.

Is there a need for such an organization in your area? Do you have an enterprising student or students? Encourage them to start an entrepreneurship SAE housing and caring for animals.

VOCABULARY

Antibiotic
Dewormer
Elusive
Microchip
Parasite
Veterinarian

EXIT TICKET

What are the differences among chemical, physical and biological hazards in the workplace?

CAREER FOCUS AREAS

Animal Systems

RELATABLE WEBSITES

Colorado State University: <https://vpr.colostate.edu/acup/hazards-related-to-working-with-animals/>

RESOURCE HIGHLIGHT

Visit [AgExplorer.com](https://www.agexplorer.com) to learn about related career opportunities in animal science.

APPENDICIES

Appendix 2: Lions and Tigers and Rhinos, Oh My!

REFERENCES

Colorado State University: <https://vpr.colostate.edu/acup/hazards-related-to-working-with-animals/>

STANDARDS ALIGNMENT

FFA Precept: FFA.PL-A, FFA.PL-F, FFA.PG-I, FFA.PG-J, FFA.CS-M, FFA.CS-N • Common Career Technical Core: AG1 • Common Core-Reading: Informational Text: CCSS.ELA-Literacy.RI.9-10.2, CCSS.ELA-Literacy.RI.9-10.4, CCSS.ELA-Literacy.RI.9-10.8 • Common Core-Writing: CCSS.ELA-W.10.2 • Common Core-Speaking and Listening: CCSS.ELA-Literacy.SL.9-10.1, CCSS.ELA-Literacy.SL.9-10.2 • Common Core-Literacy in Science & Technical Subjects: Writing: CCSS.ELA-Literacy.WHST.9.10.4 • Common Core-Math Practices: MP5, MP6 • AFNR Career Ready Practices: CRP02, CRP04 • P21 Skills: COMMUNICATION, CRITICAL THINKING, INITIATIVE AND SELF-DIRECTION, LEADERSHIP AND RESPONSIBILITY, THINK CREATIVELY



SOCIAL MEDIA MAVENS

THESE ACCOUNTS ARE RUN
BY WOMEN WITH TIES TO FFA.
FOLLOW AND LIKE THEM TO BE
INSPIRED AND INFORMED!



LIONS AND TIGERS AND RHINOS, *Oh My!*

Six FFA members from Kalamazoo County, Mich., got up close and personal with elusive wild African animals last August. The students came from four schools but were all enrolled in the Kalamazoo Regional Education Service Agency's Veterinary Science program of the KRESA South FFA Chapter. Together they embarked on a two-week journey to Hoedspruit, South Africa, to study with wildlife veterinarians at the Vets and Wildlife/Selati Vet Experience. Students assisted veterinarians in performing health checks, preparing animals for transport, administering dewormers and antibiotics, applying parasite medications, injecting microchips and treating wounds.

"Because the animals are wild, this involved darting them with tranquilizers first, then quickly accomplishing the tasks before the animals awoke," says Noreen

Heikes, a veterinarian, FFA advisor and veterinary science teacher who accompanied the students on the trip. "We had hands-on experiences with lions, a cheetah, elephants, giraffes, a rhino and a hippo (which is the deadliest animal in Africa)."

James Porter, a graduate of Gull Lake High School, says the trip boosted his interest in working toward becoming a licensed veterinary technician.

"Every experience left me in pure amazement," he says. "I would go back in a heartbeat."

For Brooklyn Joslyn, a 2018 graduate of

Portage Central High School, the best part of the trip was the realization that she was meant to pursue a career helping wildlife.

"Nothing about vaccinating a wild sable in South Africa should be normal," Joslyn says. "But after a day or two, doing that vet work just felt right. It proves I am meant to put this career in my life."

— By Jessica Mozo

**"WE HAD HANDS-ON
EXPERIENCES WITH
LIONS, A CHEETAH,
ELEPHANTS, GIRAFFES,
A RHINO AND A HIPPO
(WHICH IS THE DEADLIEST
ANIMAL IN AFRICA)."**
— NOREEN HEIKES



Artha Jonassaint
@akj_8

The president of the Florida FFA Association travels all over the state. Tag along for the ride!



Chyenne Deno
@chyenne.deno

Follow along as Deno serves as state reporter for the Indiana FFA Association.



Anna Brown
@annagracebrown

Brown shows off her run as Tennessee state reporter and a member of the #FFAStyleSquad. Use her discount code for 20 percent off at **ShopFFA.org**.



Andrea Escher
@andreaa.escher

Escher provides regular dispatches as she navigates being a district sentinel in Minnesota.



Laurie Link
@laurie_countrylinked

This fourth-generation farmer from Missouri shares photos of her family, animals and other moments on the farm.



AJ Teasley
@avajaneteasley

Teasley shares her year as Georgia's state FFA north region vice president. Also a member of the #FFAStyleSquad, use her discount code for 20 percent off at **ShopFFA.org**.

NAME: _____

Aligned to the following standards:
FFA.PL-A; FFA.PG-J; FFA.CS-M; FFA.CS-N; FFA.PL-F; FFA.PG-I; CCSS.RI.9-10.2;
CCSS.RI.9-10.4; CCSS.RI.9-10.8; CCSS.ELA.W.9-10.2; CCSS.SL.9-10.2;
CCSS.ELA.SL.9-10.1; CCSS.ELA.WHST.9-10.4; MP5; MP6; CRP.02; CRP.04

Appendix 2: Lions and Tigers and Rhinos, Oh My!

Created: Spring 2019 by the National FFA Organization

Part 1

DIRECTIONS:

Read the "Lions and Tigers and Rhinos, Oh My!" article in the Spring 2019 issue of *FFA New Horizons*. Complete the following activities.



What 6 medical skills did students get to learn during this experience?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

What overarching theme was needed and learned through this experience? Unscramble the letters to find out!

Y S F T E A

DIRECTIONS:

Anyone working with animals should always be properly trained and prepared to keep themselves, colleagues and the animals safe. Learn about the different hazards that can occur and what to do if one does occur.

Read about the three major categories of hazards from Colorado State University, <https://vpr.colostate.edu/acup/hazards-related-to-working-with-animals/>, and summarize each in 1 to 2 sentences with a minimum of 2 specific examples per hazard.

Chemical



Physical

Biological



NAME: _____

Part 2

DIRECTIONS:

With a partner, select one of the three major hazard categories above. Create a trifold brochure that includes the following about the hazard you selected: (1) What it is, (2) how to prevent the hazard from occurring, (3) how to handle the hazard if it occurs, (3) examples, (4) color and (5) pictures. If you would like to create an online brochure, an option is lucidpress.com (a free account will have to be created).

Category	Inadequate (0 – 4 points)	Below Average (5 – 10 points)	Average (11 – 15 points)	Above Average (16 – 20 points)
Content	Significant amounts of information are missing. Very few details are provided for the main ideas and understanding is limited.	Two of the following are missing: prevention, handling information and examples. Some items are distracting without providing information.	One of the following is missing: prevention, handling information or examples. Details are added to support facts with minimal clutter.	Definition, prevention, handling information and examples are all included and explained. Details support the main ideas without distracting clutter.
Graphics	Graphics do not relate to the topic. Color, shape, size and arrangement are distracting or misleading.	All graphics relate to the topic but do not represent appropriately. Color, shape, size and arrangements are present but do not add to the information.	Most graphics represent the information appropriately. Color, shape, size and arrangement are eye catching and contribute some meaning.	The graphics used represent information appropriately. Color, shape, size and arrangement of graphics contribute meaning to the overall message.
Design/Layout	Distractingly messy, unattractive or very poorly designed	Acceptably attractive though it may be a bit messy	Attractive in terms of design, layout and neatness	Neat, clear and visually appealing
Grammar/Spelling	More than 2 errors	There are 2 errors.	There is 1 error.	No errors
Information/Image Credits	No information or images are credited to source.	Only 1 or 2 items <i>are</i> credited to source.	Only 1 or 2 items are <i>not</i> credited to source.	All items are credited to source.
Points Earned				
Grade:				

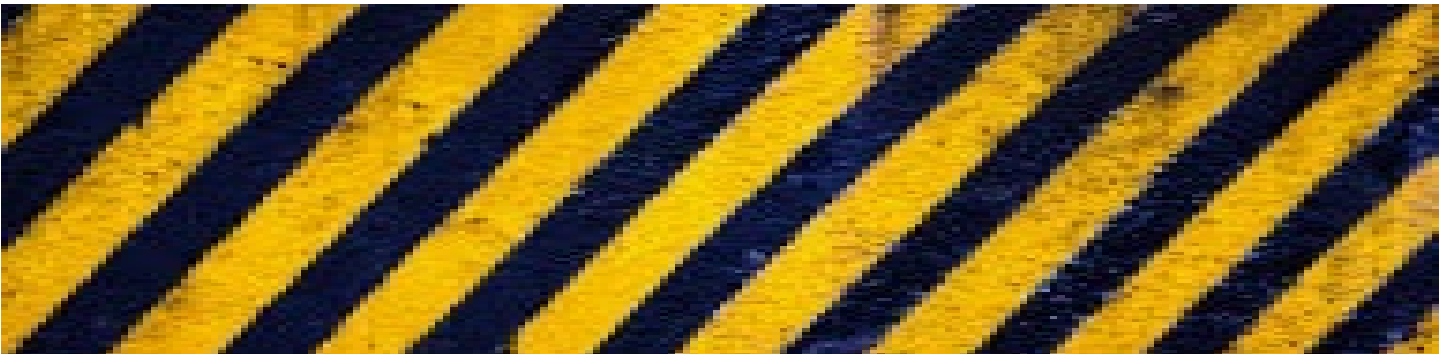
NAME: _____

Aligned to the following standards:
FFA.PL-A; FFA.PG-J; FFA.CS-M; FFA.CS-N; FFA.PL-F; FFA.PG-I; CCSS.RI.9-10.2;
CCSS.RI.9-10.4; CCSS.RI.9-10.8; CCSS.ELA.W.9-10.2; CCSS.SL.9-10.2;
CCSS.ELA.SL.9-10.1; CCSS.ELA. WHST.9-10.4; MP5; MP6; CRP.02; CRP.04

DIRECTIONS:

Once you have finished your brochure, find two other groups that have a different hazard from your own. For example, if you created a brochure about chemical hazards, you need to find a group with biological hazards and a group with physical hazards. Through discussion, teach each other about the three hazard categories and complete the chart below.

Hazard	What is it?	Prevention	Handling	Examples
Chemical				
Physical				
Biological				



NAME: _____

Aligned to the following standards:

FFA.PL-A; FFA.PG-J; FFA.CS-M; FFA.CS-N; FFA.PL-F; FFA.PG-I; CCSS.RI.9-10.2;
CCSS.RI.9-10.4; CCSS.RI.9-10.8; CCSS.ELA.W.9-10.2; CCSS.SL.9-10.2;
CCSS.ELA.SL.9-10.1; CCSS.ELA.WHST.9-10.4; MP5; MP6; CRP.02; CRP.04

Part 3

DIRECTIONS:

Using your chart and brochure, complete the following scenarios:



1. You are working as a veterinary technician. You walk into an exam room and find a used syringe and needle lying on the exam table.

- a. What type of hazard does this pose? Circle your response: Chemical Physical Biological
i. Explain your selection:
- b. How should you correct the situation?

2. You are helping at your local veterinarian's office when you notice water on the floor.

- a. What type of hazard does this pose? Circle your response: Chemical Physical Biological
i. Explain your selection:
- b. What should you do in this situation?

3. You are cleaning the dog kennels when you spill some bleach on your hands.

- a. What type of hazard does this pose? Circle your response: Chemical Physical Biological
i. Explain your selection:
- b. What should you do in this situation?

4. You currently work in a dog grooming salon when you notice a tick on the skin of a German shepherd.

- a. What type of hazard does this pose? Circle your response: Chemical Physical Biological
i. Explain your selection:
- b. What should you do in this situation?

NAME: _____

Aligned to the following standards:
FFA.PL-A; FFA.PG-J; FFA.CS-M; FFA.CS-N; FFA.PL-F; FFA.PG-I; CCSS.RI.9-10.2;
CCSS.RI.9-10.4; CCSS.RI.9-10.8; CCSS.ELA.W.9-10.2; CCSS.SL.9-10.2;
CCSS.ELA.SL.9-10.1; CCSS.ELA.WHST.9-10.4; MP5; MP6; CRP.02; CRP.04

DIRECTIONS:

When FFA members were preparing for their trip to Africa, they would have completed training on the hazards that could occur while working with the animals. Identify a chemical, physical and biological hazard that the students could have encountered on their trip.

Chemical



Physical

Biological



In 2 to 3 sentences, describe why safety around animals is so incredibly important.





NEW HORIZONS

SPRING 2019 TEACHING GUIDE



ARTICLE SUMMARY

Grow in the City

Farming is not always a vast field in the middle of nowhere. In Maryland, students are learning about growing food in downtown Baltimore.

BELL RINGER:

Why do we grow plants? Give a minimum of three reasons.

DISCUSSION QUESTIONS

1. What do plants need to grow successfully?
2. What do you need to consider when selecting an urban location for planting food commodities?
3. What benefit can an urban planting site play in a community?

ACTIVITY

On their own paper, students should complete the bell ringer activity listed above. Have students answer the bell ringer question on their own paper. Once all students have written down an answer, have them discuss and explain their answers with their neighbors. After five minutes, call on a few groups to share their answers.

The activities are divided into three parts. (1) Hand out the worksheet "Plants are Amazing!" (Appendix 3). (Internet access is required for this activity.) Students should begin by watching a short introductory video about plants before completing the worksheet. After students have learned the basics, have students read the article "Grow in the City" to learn about a unique urban plant project in Baltimore, Md. (2) Students will plan an urban garden in their community. (3) Students will create a presentation that can be presented in class, to a principal or the school about the plan they developed earlier. Students should finish by completing the exit ticket.

FFA TIP

Have your students conduct a research project. Utilize a garden plot that is about the same size as a stackable vertical garden and measure if the same yield can be grown using both types of gardening. This would also make a great agriscience fair project.

SAE TIP

Students can utilize school and/or public facilities, in groups or alone, to conduct an SAE program. These experiences can be used to teach students about the different business structures, such as co-ops and limited liability corporations.

VOCABULARY

Acre
Environment
Herbs
Tillable

EXIT TICKET

How can urban gardens impact the local community?

CAREER FOCUS AREAS

Plant Science

RESOURCE HIGHLIGHT

Visit AgExplorer.com to learn about career opportunities in the plant science career focus area.

APPENDICIES

Appendix 3 - Plants Are Amazing!

STANDARDS ALIGNMENT

FFA Precept: FFA.PL-A, FFA.PL-E, FFA.PG-J, FFA.CS-M, FFA.CS-N • **Common Core-Speaking and Listening:** CCSS.ELA.SL.9.10.2, CCSS.ELA.SL.9.10.4 • **Common Core-Literacy in Science & Technical Subjects:** Writing: CCSS.ELA-LITERACY.WHST.9.10.4 • **Common Core-Math Practices:** MP1, MP5, MP6 • **AFNR Career Ready Practices:** CRP02, CRP04, CRP05, CRP06, CRP11 • **P21 Skills:** COMMUNICATION, CRITICAL THINKING, INITIATIVE AND SELF-DIRECTION, LEADERSHIP AND RESPONSIBILITY, THINK CREATIVELY

THE *feed*

GROW IN THE CITY

THIS FFA CHAPTER PROVES URBAN GARDENS CAN PRODUCE PLENTY OF PRODUCE.

You don't need to have acres of tillable land to grow a bumper crop of vegetables. FFA members at Green Street Academy in Baltimore, Md., produce food on a campus surrounded by row houses, convenience stores and busy intersections. Agriscience teacher and FFA advisor Cole Bishop offers four tips for growing a successful urban garden.

1 PICK THE RIGHT SITE. In the absence of a farm field, build raised beds in vacant lots or parking lots. Rooftops are also ideal urban sites, but Bishop warns, "You'll need to pick plants that love sun or put up a shade cloth because it gets hot up there."

2 GO VERTICAL. Green Street Academy grows tomatoes, lettuce and herbs in hanging baskets to maximize

every square foot of its urban garden.

3 THINK BIG. It might be tempting to stick with small crops like tomatoes and peppers, but with good soil and sunlight, even corn will grow in urban areas. "Not every plant is going to work in every environment, but don't be afraid to try," Bishop says.

4 SPREAD THE WORD. Urban agriculture is getting more popular, but Bishop believes it's important to share information about garden projects on social media. "The more food growing in cities, the better, and you could help inspire others to start urban gardens," he explains.

— By Jodi Helmer

An urban garden can also make for a great supervised agricultural experience (SAE). Find SAE inspiration at FFA.org/SAEVideos.

Questions On WATER QUALITY

Water is one of the most important natural resources upon which agriculture depends. Farmers use water and nutrients judiciously. Even so, some runoff happens. Environmental, government, university and business representatives are collaborating with farmers for results. Here, Diane Herndon, senior manager of sustainability at Nestlé Purina, discusses the company's efforts to partner toward shared goals on water conservation and quality.

Q: CAN YOU GIVE AN EXAMPLE OF HOW PURINA HAS BECOME INVOLVED IN IMPROVING WATER QUALITY?

A: Nestlé Purina is supporting work across the United States where our ingredients are grown. In Indiana, we work with The Nature Conservancy, farmers and others on the Wabash River to create wetlands and woodlands that can remove up to 40 percent of the soil and nitrogen before the water flows downstream.

Q: WHY DO YOU ENGAGE THIS WAY?

A: We source healthy ingredients for our pet food recipes from America's farms. The programs to which we contribute help to ensure that farmland stays fertile and the environment stays healthy so that we have abundant ingredients available well into the future.

Q: OUT WEST, A LACK OF WATER IS OFTEN THE ISSUE, CORRECT?

A: Nestlé Purina and Cargill are working with The Nature Conservancy and farmers in Nebraska to collect water data through sensors and download it to farmers' smartphones. From there, they can control their irrigation pivots through an app, saving time, water and money. The project is expected to save 2.4 billion gallons of water from the Ogallala Aquifer over the project's three-year course.

— By Des Keller

NAME: _____

Aligned to the following standards:
FFA.PL-A; FFA.PL-E; FFA.PG-J; FFA.CS-M; FFA.CS-N; CCSS.ELA.SL.9-10.1;
CCSS.ELA.SL.9-10.2; CCSS.ELA.SL.9-10.4; CCSS.ELA.WHST.9.10.4; MP1; MP5; MP6;
CRP.02; CRP.04; CRP.05; CRP.06; CRP.11

Appendix 3: Plants Are Amazing!

Created: Spring 2019 by the National FFA Organization

Part 1

DIRECTIONS:

Watch the video "What is a Plant?" until the 7:00 mark and record the information below. The video URL is <https://youtu.be/qULkjDccCeY>.

What allows plants to stand?

What aids in the green color of plants?

How do plants adapt to their environment to meet their survival needs? Identify 2 ways.

1. _____
2. _____



Plants utilize sunlight to create food and energy through this process:

How would all the plant information listed above and discussed in the video impact the plants a person would select for a garden or landscape?

Identify 3 ways in which plants impact humans.

1. _____
2. _____
3. _____

NAME: _____

Aligned to the following standards:
FFA.PL-A; FFA.PL-E; FFA.PG-J; FFA.CS-M; FFA.CS-N; CCSS.ELA.SL.9-10.1;
CCSS.ELA.SL.9-10.2; CCSS.ELA.SL.9-10.4; CCSS.ELA.WHST.9.10.4; MP1; MP5; MP6;
CRP.02; CRP.04; CRP.05; CRP.06; CRP.11

Part 2

DIRECTIONS:

Read the "Grow in the City" article found in the Spring 2019 issue of *FFA New Horizons*.

Today, we are going to map out our own urban garden! Live in a rural area? Think about your local town square as a location.

1. Pick the right site.

Give a brief description of the site you selected and why. What makes this location ideal?

Draw a map that shows how to get from the school to the site you have selected. Remember, this should be easily understood by anyone, even those that do not live in your community.



NAME: _____

Aligned to the following standards:
FFA.PL-A; FFA.PL-E; FFA.PG-J; FFA.CS-M; FFA.CS-N; CCSS.ELA.SL.9-10.1;
CCSS.ELA.SL.9-10.2; CCSS.ELA.SL.9-10.4; CCSS.ELA.WHST.9.10.4; MP1; MP5; MP6;
CRP.02; CRP.04; CRP.05; CRP.06; CRP.11

2. Go vertical.

Give a brief description of how you are going to 'go vertical' and which materials you will use to maximize the space selected.

Draw a picture of your plan to go vertical.



NAME: _____

Aligned to the following standards:
FFA.PL-A; FFA.PL-E; FFA.PG-J; FFA.CS-M; FFA.CS-N; CCSS.ELA.SL.9-10.1;
CCSS.ELA.SL.9-10.2; CCSS.ELA.SL.9-10.4; CCSS.ELA.WHST.9.10.4; MP1; MP5; MP6;
CRP.02; CRP.04; CRP.05; CRP.06; CRP.11

3. Think big.

Research different plants that would work well in the space you have selected. Determine the price and quantity you would need to get this project going. Be varied in your selection and select a minimum of 5 different plants. For ideas, check out Burpee seeds for seeds and pricing ideas.

Type of Plant	Quantity	Price
		Total:



How do you see your urban garden impacting others?

NAME: _____

Aligned to the following standards:

FFA.PL-A; FFA.PL-E; FFA.PG-J; FFA.CS-M; FFA.CS-N; CCSS.ELA.SL.9-10.1;
CCSS.ELA.SL.9-10.2; CCSS.ELA.SL.9-10.4; CCSS.ELA.WHST.9.10.4; MP1; MP5; MP6;
CRP.02; CRP.04; CRP.05; CRP.06; CRP.11

4. Spread the word.

Create a social media campaign for your urban garden to let people know about the opportunity.



Picture



Using the crops you selected, develop or find a recipe for Pinterest.



Recipe name: _____
Ingredients:

Directions:

NAME: _____

Aligned to the following standards:
FFA.PL-A; FFA.PL-E; FFA.PG-J; FFA.CS-M; FFA.CS-N; CCSS.ELA.SL.9-10.1;
CCSS.ELA.SL.9-10.2; CCSS.ELA.SL.9-10.4; CCSS.ELA.WHST.9.10.4; MP1; MP5; MP6;
CRP.02; CRP.04; CRP.05; CRP.06; CRP.11

Part 3

DIRECTIONS:

Develop a 3- to 5-minute presentation to present to your teacher, school or principal about the importance of urban farming and how the plan you developed could meet a need in your community. Use the space below to plan your presentation.



Introduction to urban farming and need

How can an urban farm meet the needs in the location you selected?

Your plan

NAME: _____

Aligned to the following standards:
 FFA.PL-A; FFA.PL-E; FFA.PG-J; FFA.CS-M; FFA.CS-N; CCSS.ELA.SL.9-10.1;
 CCSS.ELA.SL.9-10.2; CCSS.ELA.SL.9-10.4; CCSS.ELA.WHST.9.10.4; MP1; MP5; MP6;
 CRP.02; CRP.04; CRP.05; CRP.06; CRP.11

Presentation Rubric

Qualification	Very strong evidence of skill is present (5-4 pts)	Moderate evidence of skill is present (3-2 pts)	Weak evidence of skill is present (1-0 pts)	Total Points (20 possible)
Presentation Skills	Is thorough and maintains eye contact	Somewhat professional and depends on the presentation	No evidence of preparation	
Grammar/Punctuation/Spelling	Spelling, grammar and punctuation are extremely high quality with two or less errors in the document.	Spelling, grammar and punctuation are adequate with three to five errors in the document.	Spelling, grammar and punctuation are less than adequate with six or more errors in the document.	
Time	Two minutes or more	Between one and two minutes	Under one minute	
Overall Impression	Presentation was professional, and presenter thoroughly explained his or her plan/idea.	Presentation was complete but lacked some detail.	The presentation lacked polish and information.	
			Total	



ARTICLE SUMMARY

The Fight for Female Membership and Groundbreakers

Women joined FFA in 1969 and have been making a lasting impact ever since.

BELL RINGER:

What impact have women made on agricultural science?

DISCUSSION QUESTIONS

1. What role have women played in FFA?
2. Why was the addition of women into FFA so significant?
3. How have women impacted agriculture?

ACTIVITY

On their own paper, have students complete the bell ringer activity listed above. Once all students have written down an answer, have them discuss and explain their answers with their neighbors. After five minutes, call on a few students to share their answers.

This activity is divided into three parts. (1) Hand out the "Starting a Revolution" worksheet (Appendix 4). (Internet access is required for this activity.) Have students read the "Let's Celebrate Women in FFA!" article. Students will then complete the table comparing and contrasting the most recent female National FFA president with the first female National FFA president. (2) Students will then learn about impactful women in the agricultural sciences. Students will unscramble the names of each scientist and cut out the name and picture. They will glue the picture and name to a blank sheet of paper. Next, students will cut out the scientific accomplishments and date in history and match them to the female scientists. Students should then glue information next to the picture. (3) Students will select an impactful female in their own community or an impactful female in the career area they are interested in (Ex. Florence Nightingale is known as the founder of modern nursing). They will complete a worksheet about the person they have chosen.

Have students complete the exit ticket before leaving class.

FFA TIP

Have your students identify female alumni or community members that have had an impact on your FFA chapter and then recognize them in your local community.

Have your students create a timeline of important FFA dates with descriptions of what significant event occurred.

SAE TIP

Have your students identify female alumni or community members that have had an impact on your FFA chapter and work with them to develop SAE programs within your school and/or local community.

VOCABULARY

Leader
Membership
Pioneer

EXIT TICKET

What roles have women played throughout history?

CAREER FOCUS AREAS

Any

RESOURCE HIGHLIGHT

The Fight for Female Membership
Groundbreaking Leaders

APPENDICIES

Appendix 4 - Female Leadership

STANDARDS ALIGNMENT

FFA Precept: FFA.PL-A, FFA.PL-C, FFA.PL-E, FFA.PG-J, FFA.CS-N • Common Core-Reading: Information Text: CCSS.ELA.RI.9.10.2 • Common Core-Literacy in Science & Technical Subjects: Writing: CCSS.ELA-LITERACY.WHST.9.10.4 • Common Core-Math Practices: MP3, MP6 • AFNR Career Ready Practices: CRP02, CRP04 • P21 Skills: COMMUNICATION, CRITICAL THINKING AND PROBLEM SOLVING, GLOBAL AWARENESS, INITIATIVE AND SELF-DIRECTION, THINK CREATIVELY



Snapshots in Time

Clockwise from top right: Christe Peterson competes in a public speaking contest in 1979. Melanie Burgess became a national FFA vice president in 1981. Evadale, Texas, member Chrystal McDaniel poses with the 3 millionth FFA jacket. Sharon Staley of the White River FFA Chapter in Washington, models the first official girl's FFA jacket. American Farmer Degrees are first awarded to women in 1973.

THE FIGHT FOR FEMALE MEMBERSHIP

It's been 50 years since the 1969 National FFA Convention when women gained full membership. Let's celebrate the decades of courage, diligence and relentlessness that paved the way.

BY BEV FLATT

In 1942, D. Gilson was a successful member of the Port Royal FFA Chapter in Pennsylvania by every definition. Gilson was an engaged agricultural education student, led successful projects on the family farm, and received the chapter's coveted Carpentry Award as a senior.

When the United States entered World War II, Gilson temporarily left college and worked as a welder, using the skills developed growing up on a farm and in agricultural mechanics classes in high school. After the war, Gilson completed college and went on to become a teacher and farmer. Unfortunately, you won't find the successes and stories of Dorothy Gilson-Baker (D. Gilson), or thousands of other women like her, among any national archives. It wasn't until 1969 that women were officially allowed membership into the National FFA Organization. However, in the 50 years since the formal acceptance of female membership, women have become an integral part of the organization. Women have achieved significant milestones, and they continue to shape the future of agricultural education and the industry of agriculture.

The push for female membership wasn't an effort led during a single business session of a single National FFA Convention. Rather, it was a feat that required incredible energy and efforts that began

more than 30 years earlier. In the morning session of convention on Oct. 23, 1935, a Massachusetts delegate, Alfred Vaughan, was the first official member to broach the subject that women be allowed full membership at the national level. However, the question of female membership during this convention was resolved as follows:

"That when officially found that any State Association in a Future Farmers of America has girl members on its rolls, such State Associations shall be denied participation in all national Future Farmer of America contests and national F.F.A. awards. And no funds from the national treasury shall be available to such State Associations for the purpose of transporting delegates to the national conventions until such time as the names of the girl members are removed from the official rolls of the State Association and local chapters in accordance with the constitution."

—Eighth National Convention Proceedings Report

For the next 30 years, state and local chapters integrated female membership at varying levels. Some females enrolled in agricultural education classes but were not allowed to become FFA members. Some women were added to rosters using initials that didn't reveal their gender, like Dorothy Gilson-Baker.



Women members participate in a horticulture demonstration in 1980.

And other females were identified as “social ambassadors” for the chapter and received the coveted Sweetheart jacket.

IF AT FIRST YOU DON'T SUCCEED ...

The issue received little attention until the 1964 National FFA Convention. During the 37th convention, Paul Miller from Connecticut proposed an amendment to open national membership to women. Despite Miller moving

was formed to review various impacts of membership. The following August, the National FFA Board of Directors proposed constitutional changes based on this committee's work, including the recommendation to remove the word *male* from the constitution. During the morning and afternoon business sessions on Oct. 13, 1966, delegates took part in intense debate and discussion on multiple sections of the ad hoc report. By the end of the convention, the

to accept the amendment and a second by Irving Torres of Puerto Rico, the motion was defeated once again. Despite the amendment's initial defeat, the delegates succeeded in bringing the topic back into the spotlight.

In January of 1966, an Ad Hoc FFA Organization Study Committee

delegates accepted all recommendations of the committee except for two, one of which was to drop the word *male* from the constitution.

CHANGING TIMES, BUT NO CHANGES

During this time, the Vietnam War continued to rage overseas, Apollo 4 launched into space and Twiggy made her fashion debut. The climate and culture toward women's rights throughout America continued to shift, as well, and in 1967, the Affirmative Action Policy was expanded to cover discrimination based on gender.

As political and legal environments adapted and changed, the National FFA Organization sought legal counsel for the obligation to accept females as members on the national level. Despite receiving legal interpretation that declared excluding females from membership was discriminatory, amendments could not be made to the constitution that year. Instead, the delegates of the 40th National FFA Convention were informed of the legal ruling concerning female members, instructed to take the

The Female FFA Pioneers

It was 1969 that marked the first official year for female membership into the National FFA Organization. However, the following 50 years truly revealed just how much of an impact women could have in the organization. While names like Alfred Vaughan, Paul Miller and Donald Shinn are remembered for their contribution toward achieving female membership, there are countless other names today that inspire women who wear the blue jacket. Some of those names include:



Anita Decker and Patricia Krowicki

Just one year after female membership was secured, Anita Decker from New York and Patricia Krowicki from New Jersey served as the first female delegates at the 43rd National FFA Convention.



Julie Smiley

In 1976, Julie Smiley from Washington became the first woman to serve at the national level as the western region vice president. Since then, more than 80 women have been elected to the National FFA Officer Team.



Karlene Lindow

Karlene Lindow shattered another glass ceiling for women in FFA in 2002 when she was named the American Star Farmer. She raised hogs in Chili, Wis., and her jacket now hangs in the Smithsonian National Museum of American History.



Jan Eberly

In 1982, Jan Eberly from California was elected to serve as the first female national FFA president.

information back to the local level, explore the situation and return to Kansas City in one year with the views of the members in order to provide appropriate discussion.

At that time, approximately 3,300 females were enrolled in vocational agricultural classes nationwide and an increasing number of states accepted women as members. By many accounts, acceptance of female members was inevitable during the following convention.

On Oct. 17, 1968, Donald Shinn from New Jersey declared on the business floor, "Any student who is regularly enrolled in vocational agriculture is entitled to become an active member of any chartered FFA chapter." The motion was quickly seconded by Richard Posthumus from Michigan, yet only a smattering of applause followed. The motion was defeated.

Yet, the spirit of the motion was not to be ignored. Howard Schrinar from Wyoming immediately stood before the delegate body and moved that each state appoint a committee to explore membership for women. Massachusetts once again made its stance known with a second from Donald Bridges. But again, the motion was defeated.

BREAKING GROUND IN 1969

Finally, one year later, on Oct. 15, 1969, Paul Bankhead of California moved and Robert Craig of Michigan seconded once more to strike the word *male* from the constitution. The motion carried.

On the morning of Oct. 17, Johnny Holland from Tennessee stood before the delegation and read the following resolution:

"WHEREAS, we, the delegates, to the Forty-Second annual convention have voted to allow all students of vocational agriculture to become members of the FFA;

"WHEREAS, we therefore have expressed our belief that all individuals are created equal and should have equal opportunities;

"WHEREAS, we also feel that only those who have competed on an equal basis and earned national recognition should be highly honored at our national convention; be it therefore

"RESOLVED, that we, the delegates, gathered here today, feel that the introduc-

tion of the first active female members to participate in the national FFA activities and the atmosphere and publicity thus associated with these events, be recognized as over-dramatized presentations and should not be taken as precedence set for following female participation, that instead FFA members, girls and boys, should be treated and honored equally."

John Comegys from Delaware seconded the adoption of the resolution. The motion carried by a two-vote margin.

More than 12,000 days had passed since the initial idea was brought before the organization to the final acceptance of female FFA members.

THE AFTERMATH

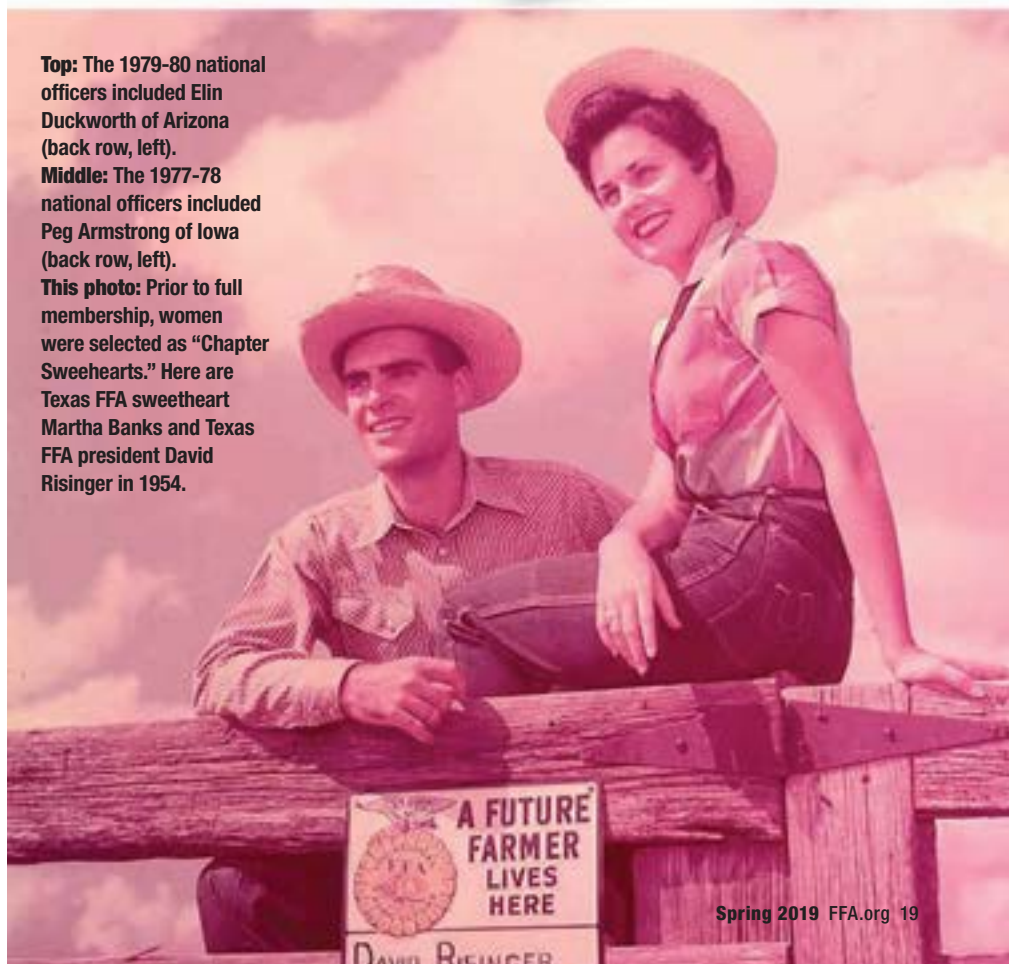
Since 1969, women have served as convention delegates, national officers and even been named as the American Star Farmer. Nearly half of all FFA members are women, and females hold approximately 50 percent of state leadership positions. In fact, if you peek into the archives once more, you might find a familiar name. Dorothy Gilson-Baker's legacy continues through her granddaughter Libby Baker-Mikesell, the 2016-17 Pennsylvania state president. •



Top: The 1979-80 national officers included Elin Duckworth of Arizona (back row, left).

Middle: The 1977-78 national officers included Peg Armstrong of Iowa (back row, left).

This photo: Prior to full membership, women were selected as "Chapter Sweethearts." Here are Texas FFA sweetheart Martha Banks and Texas FFA president David Risinger in 1954.



Groundbreakers

**MEET SOME OF THE WOMEN WHO
HELPED SHAPE THE FUTURE OF FFA.**

**THIS YEAR MARKS THE 50TH
ANNIVERSARY OF WOMEN IN FFA.
FROM THE MOMENT WOMEN WERE
FIRST WELCOMED INTO THE NATIONAL
FFA ORGANIZATION IN 1969, THEIR
ENTHUSIASTIC MEMBERSHIP HAS BEEN
INSTRUMENTAL IN SHAPING THE FUTURE
OF FFA – BUT IT ALL STARTED WITH A
FEW GROUNDBREAKING LEADERS.
MEET FIVE WOMEN WHO PAVED THE
WAY FOR WOMEN IN FFA.**

Story by Jodi Helmer / Illustrations by Matt Cook

ANITA DECKER WRIGHT



Growing up on a farm in upstate New York, Anita Decker Wright raised livestock, helped in the fields and learned how to repair farm equipment.

Wright joined local and state FFA chapters in high school but, at the time, women weren't allowed to join the National FFA Organization. She attended the National FFA Convention in 1969 when delegates voted to allow females into the national organization. The following year, Wright, a newly elected state officer, returned to the convention, where she was one of two female delegates in attendance.

"I didn't realize what a big deal it was [to be one of the first two female delegates to attend the national convention] because girls had been involved at the local and district levels," Wright recalls.

Attending the national convention was exciting, but Wright made sure to follow all the rules so females would continue to be welcomed and respected within the organization. As an FFA member, she competed in livestock judging competitions, attended additional conventions and traveled to Europe to learn about the global importance of agriculture.

Looking back, Wright believes involvement with FFA helped her develop leadership, communication and teamwork skills that were instrumental in several of her achievements, including earning scholarships and serving as student government president during college.

"FFA opened a lot of doors for me," she says.

Cathie Malison

Although Cathie Macallister Malison was active in the FFA chapter at Northern Burlington County Regional High School in Columbus, N.J., she was never elected president. "Back then, the boys wouldn't vote for a girl," she recalls.

However, in 1971, while enrolled in Cook College at Rutgers University, she was elected president of the New Jersey FFA

Association; Malison was the first woman to hold the title. One year later, she became the first woman to run for national office and, when she earned her American FFA Degree in 1973, she was among the first woman to earn that honor, too.

"I knew I was breaking barriers but, to me, it wasn't such a big issue," she recalls. "I was someone with an interest who could get the job done and,

like every other FFA youth, I wanted to become a leader."

Malison wasn't just a leader in FFA. She was also a leader in her career. She taught agricultural education, advised farmers as a county Extension agent and operated a garden center. When Malison moved to Idaho with her husband, John, in 1998, she used the leadership skills she developed in FFA to make connections,



volunteering for fundraisers and serving on the board of a local sporting association.

"So many things have changed in the

last 50 years, and it's nice to see how many women are involved and how many are national officers," she says.



BREANNA HOLBERT

As a high school freshman at Tokay High School in Lodi, Calif., Breanna Holbert admits to signing up for agricultural education to help boost her GPA. The self-described “ethnic girl from an urban area” never imagined that the class would change her life.

“FFA kept me anchored,” she recalls. “I worked just as hard as the next person, and I felt like I belonged. It set my heart in motion to pursue leadership.”

Holbert served as chapter officer, section officer and chapter president. In 2017, she became the first African-American woman to serve as the president of the National FFA Organization.

Though Holbert didn’t consider herself “presidential” when she was elected and worried that her skin color was more of a focus than her accomplishments, traveling across the United States to give speeches and meet other FFA members helped her realize the importance of representation.

Holbert recalls speaking to a classroom filled with African-American students at the Arabia Mountain FFA Chapter in Georgia. “One girl sat in the front row, crying. After the class, she came up to me and said, ‘You give so much hope to girls like me.’ It made me realize that other African-American girls are going to follow in my footsteps, and I feel so proud of that,” she says.

Illinois’ First All-Female State Officer Team

As the executive director of the Illinois FFA Association, Mindy Bunselmeyer has the privilege of working with outstanding young leaders across the Prairie State. This year, the association made state history when the first all-female state FFA Officer Team for Illinois was elected.

Thirteen of the 20 candidates who ran were women. During the state delegate convention, Sophia Hortin, Eliza Petry, Shaylee Clinton, Miriam Hoffman and Taylor Hartke were elected to the state officer team by popular vote.

The historic event attracted a lot of attention and actually made the newly elected officers worry that their gender overshadowed their accomplishments.

“The young women who were elected are all so amazing,” Bunselmeyer says. “It should be known that they were elected based on their leadership abilities, merit and talent – not their gender.”

Although Bunselmeyer knows she’s part of a historic moment in FFA history, she notes, “FFA isn’t about young men or young women; it’s an organization for young leaders.”

BELINDA CHASON

In 2018, Belinda Chason was inducted into the Florida FFA Foundation Hall of Fame to honor a career as an agriculture advocate spanning more than four decades.

In addition to working as a state FFA advisor, Chason also logged several impressive accomplishments within the organization. She was the first female state FFA advisor, the first female executive director of the Florida FFA Association and the first woman elected to the National FFA Organization Board of Directors.

Although she's proud of all of these roles, Chason believes her role on the National FFA Organization Board of Directors was among the most impactful, explaining, "It was important to the overall operation of the organization to break the barrier and elect a woman to serve in that position."

Chason joined the National FFA Organization Board of Directors in 1996 and was involved in the historic decisions to move both the National FFA Center to Indianapolis and the National FFA Convention & Expo to Louisville. It was

an exciting time to be on the board, she says, and provided opportunities to bring a unique perspective to landmark rulings.

"FFA taught me to look at the big picture, and I hope that was one of the things I brought to the table," she recalls.

Although Chason retired in 2011, she remains active in FFA. "It was such a good learning experience for me, and I want to be sure other females have those opportunities," she says.



Karlene Lindow Krueger

Karlene Lindow Krueger was thrilled to compete for the American Star Farmer award, but she wasn't optimistic about her chances of winning.

"Never in my wildest dreams did I expect to make it to the top four and, when I did, never in my wildest dreams did I expect to win," Krueger recalls.

It wasn't a lack of confidence that made the third-generation farmer and FFA member think the odds were against her. It was her operation's size, the smallest of all of the competitors. Krueger was raising 100 sows, five feeder calves and three beef cattle, while her competitors were managing up to 5,000 acres.

In 2002, Krueger was humbled to be the first woman to receive the American Star Farmer award, calling it, "The last hurdle women had to overcome [in FFA]."

Although Krueger is proud of the prestigious title, awards aside, she believes her participation in FFA helped shape her life. "Being in FFA has a ripple effect," she says.

A former member of the FFA livestock judging team, Krueger is the livestock judging coach in Campbellsport, Wisc. She continues to farm, and she shares her passion for agriculture with her children. Krueger's oldest daughter just entered her first year of FFA.

"It was such an honor to be the first female American Star Farmer," she says. "I hope it gives young women like my daughters something to strive for." •

NAME: _____

Appendix 4: Female Leadership

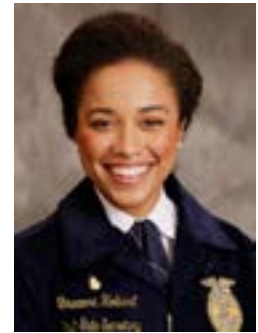
Created: Spring 2019 by the National FFA Organization

Part 1

DIRECTIONS:

Read the article "Let's Celebrate Women in FFA!" in the Spring 2019 issue of *FFA New Horizons* and complete the following activities.

Using the table, compare and contrast the first and most recent female National FFA presidents and their time in office. Things to consider: what was happening during the two different time periods? What did each accomplish in and out of FFA?



	Jan Eberly, 1982	Similarities	Breanna Holbert, 2017
1.	First female National FFA president	National FFA president	First African American female National FFA president
2.			
3.			
4.			
5.			
6.			

NAME: _____

Aligned to the following standards:
FFA.PL-A; FFA.PL-E; FFA.CS-N; FFA.PG-J; FFA.PL-C; CCSS.ELA.RI.9-10.2;
CCSS.ELA.WHST.9-10.4; MP5; MP6; CRP.02; CRP.04

Part 2

DIRECTIONS:

Women not only made strides by being accepted into FFA in 1969, but also had many accomplishments in agriscience. Cut out each picture, name scramble and fact (on the next page). Unscramble each name, then glue the matching picture and name to a blank piece of paper. Next, identify the historical date range and accomplishment of each scientist and glue them next to the picture. (There will be one historical date range and one accomplishment for each picture).



LAHCER RASONC



NEJA ALLGDOO



RABRAAB KCMCCINLTO



ATKAI FFTRAK



IEARM YDLA



TPMLEE NGANDRI

NAME: _____

Aligned to the following standards:
FFA.PL-A; FFA.PL-E; FFA.CS-N; FFA.PG-J; FFA.PL-C; CCSS.ELA.RI.9-10.2;
CCSS.ELA.WHST.9-10.4; MP5; MP6; CRP.02; CRP.04

Name Word Bank

Jane Goodall

Temple Grandin

Katia Krafft

Barbara McClintock

Rachel Carson

Maria Daly

Scientific Accomplishment

Known for her work in animal behavior. She has worked to find and implement more humane methods of slaughtering livestock.
--

Known for working and living with chimpanzees to better understand their behavior. She brought light to animal rights and behavior.

Among the first to photograph and film volcanoes and their eruptions.

Known for writing <i>Silent Spring</i> and bringing attention to chemical use in the agriculture industry.
--

A chemist that studied the impact of foods on health through chemistry.

A geneticist that studied cells in corn. Won the Nobel Peace Prize for her work.
--



Dates in History

1921-2003

1907-1964

1947-present

1902-1992

1934-present

1942-1991



NAME: _____

Aligned to the following standards:
FFA.PL-A; FFA.PL-E; FFA.CS-N; FFA.PG-J; FFA.PL-C; CCSS.ELA.RI.9-10.2;
CCSS.ELA.WHST.9-10.4; MP5; MP6; CRP.02; CRP.04

Part 3

DIRECTIONS:

Option #1: Select a noteworthy female scientist in a field of study in which you have a personal interest and outline her accomplishments below. Draw a picture of the individual in the box.

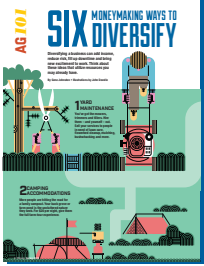
Option #2: Select an impactful female member of your community and outline her accomplishments below. Draw a picture of the individual in the box.

Draw and color a picture of the person you selected.

What is this person's major accomplishment(s)?

Why did you select this person?

What can you learn from this person and apply to your own life to be successful?



ARTICLE SUMMARY

Ag 101 — 9 Moneymaking Ways to Diversify

Do you want to make some money? Check out this quick read for tips on how to diversify a business or project to make cash! Tips range from starting a yard maintenance business to small engine repair.

BELL RINGER:

What does “diversifying a business” mean to you?

DISCUSSION QUESTIONS

1. Why do you think it is important to diversify a business?
2. Think of businesses in your community. Are some of them a diversified business? If so, how are they diversified?
3. What do you think are pros and cons of diversifying a business?

ACTIVITY

On their own paper, have students complete the bell ringer activity listed above. Once all students have written down an answer, have them discuss and explain their answers with their neighbors. After five minutes, call on a few students to share their answers.

Next, have students read the article “Ag 101 — 9 Moneymaking Ways to Diversify.” Students should then complete the worksheet “Ag 101” (Appendix 5). (Internet access is required for this activity). This worksheet has two parts: (1) Students will brainstorm a product/business concept that can be used in their school or community and choose a career pathway that the product/business would fit, and (2) students will complete a business proposal using components from the agricultural marketing plan career development event.

Have students complete the exit ticket on their own paper. Have students share those experiences with the class if there is time.

FFA TIP

Invite local business owners/entrepreneurs to speak at FFA chapter meetings and/or during agriculture classes. Have the individual share specifically how they started their business, some of their daily responsibilities, and challenges they face and how they overcome them.

SAE TIP

Help your members assess their interests, talents and skills. Then help them assess their own, family, chapter/school and community resources. Help them think entrepreneurially. Have them consider how can they generate income using the interests, talents, skill and resources available to them.

VOCABULARY

Contract
Niche
Configuration

EXIT TICKET

Identify ways you can apply the information you learned in this lesson to your school career and later in life.

CAREER FOCUS AREA

Agricultural Business

APPENDICIES

Appendix 5 - Ag 101

STANDARDS ALIGNMENT

FFA Precept: FFA.PL-C, FFA.PL-D, FFA.PL-F, FFA.PG-J, FFA.CS-M, FFA.CS-N, FFA.CS-O • **Common Core-Reading: Information Text:** CCSS.ELA-LITERACY.RI.9-10.4 • **Common Core-Writing:** CCSS.ELA-LITERACY.W.9-10.2, CCSS.ELA-LITERACY.W.9-10.4 • **Common Core-Speaking and Listening:** CCSS.ELA-LITERACY.SL.9-10.4 • **Common Core-Math Practices:** MP1, MP2, MP6 • **AFNR Career Ready Practices:** CRP04, CRP06 • **P21 Skills:** COMMUNICATION, CRITICAL THINKING AND PROBLEM SOLVING, INITIATIVE AND SELF-DIRECTION, LEADERSHIP AND RESPONSIBILITY

SIX MONEymaking ways to DIVERSIFY

Diversifying a business can add income, reduce risk, fill up downtime and bring new excitement to work. Think about these ideas that utilize resources you may already have.

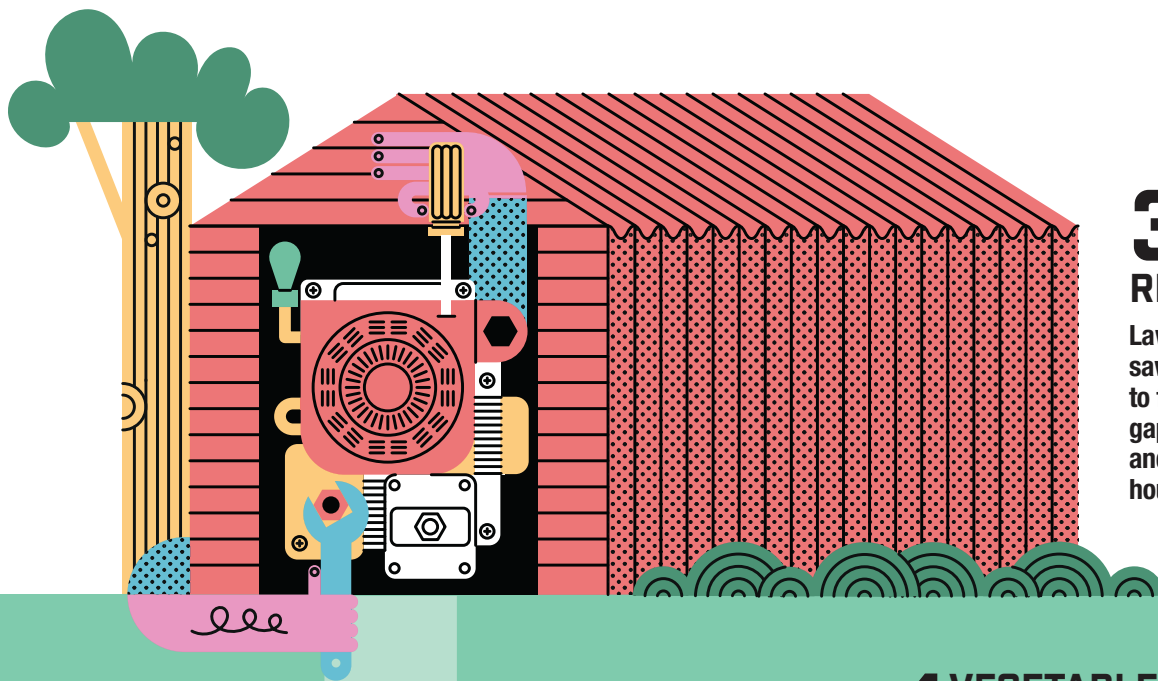
By Gene Johnston • Illustrations by John Devolle

1 YARD MAINTENANCE

You've got the mowers, trimmers and tillers. Hire them – and yourself – out. Sell your services to people in need of lawn care, flowerbed cleanup, mulching, bushwhacking and more.

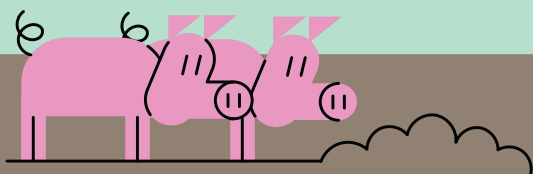
2 CAMPING ACCOMMODATIONS

More people are hitting the road for a family campout. Your back grove or farm pond is the uncluttered nature they seek. For \$20 per night, give them the full farm-tour experience.



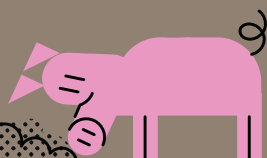
3 SMALL ENGINE REPAIR

Lawn mower and chain saw mechanics are hard to find these days. Fill that gap with your shop, tools and know-how. Set a good hourly rate for your work.



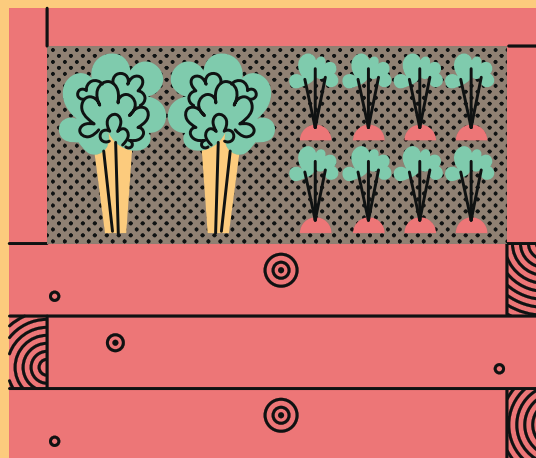
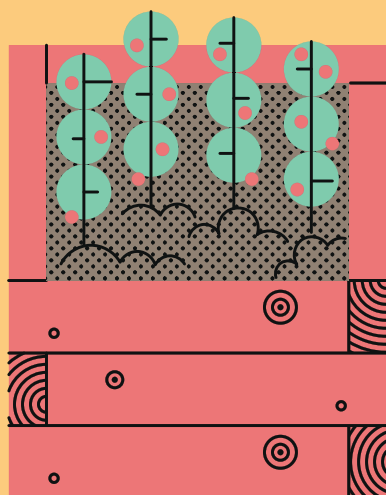
5 NATURAL PORK

Niman Ranch, a California-based natural meats company, buys pigs raised the old-fashioned way – outside or in bedded pens with no crates. Consider providing sows to similar niche companies.



4 VEGETABLE GARDEN

The local-food demand has opened doors for small-scale vegetable growers. An Iowa company that contracts with farmers to grow carrots recommends starting on a half-acre to get a feel for it. Gross income potential: \$1,000 per half-acre.



6 URBAN GARDEN

Backyard raised-bed gardens are a trend. Build and manage them. Sizes and configurations are limitless, and good ideas are available at state Extension offices.

NAME: _____

Aligned to the following standards:
FFA.PL-C.; FFA.PL-D.; FFA.PL-F.; FFA.PG-J.; FFA.CS-M.; FFA.CS-N.;
FFA.CS-O.; CCSS.RI.9-10.4;
CCSS.W.9-10.2; CCSS.W.9-10.4; CCSS.SL.9-10.4; CRP.04; CRP.06, MP1,
MP2, MP6

Appendix 5: Ag 101

Created: Spring 2019 by the National FFA Organization

DIRECTIONS:

Read the article "Ag 101 — 9 Moneymaking Ways to Diversify" in the Spring 2019 issue of *FFA New Horizons*. Complete the activities below.

Part 1

Divide into groups. In your group, brainstorm a product or business concept that can be used in your school and/or community that will help solve a problem or need. The product/business concept must connect to agriculture.



Choose a career focus area for your product/business. Choose from these options: 

Career Focus Areas:
Agribusiness Systems, Animal
Systems, Biotechnology Systems,
Environmental Service Systems,
Food Products and Processing
Systems, Natural Resources
Systems, Plant Systems, Power
Structural and Technical Systems &
Agricultural Education

What are your ideas for the product or business that would fit in your chosen career pathway?

What is the use of the product or purpose of the business?

How will this product or business benefit your school and/or community?

NAME: _____

Aligned to the following standards:
FFA.PL-C.; FFA.PL-D.; FFA.PL-F.; FFA.PG-J.; FFA.CS-M.; FFA.CS-N.;
FFA.CS-O.; CCSS.RI.9-10.4;
CCSS.W.9-10.2; CCSS.W.9-10.4; CCSS.SL.9-10.4; CRP.04; CRP.06, MP1,
MP2, MP6



Part 2

Complete a business proposal by answering the questions below (taken from a portion of the agricultural marketing plan career development event). Reference the rubric to guide you through the process.

1. Create a mission statement for your business/product. (Visit this website to see examples of mission statements for various non-profit organizations: <https://topnonprofits.com/examples/nonprofit-mission-statements/>.)

2. Who is the target market/audience?

3. Create goals for this product/business concept. Reference this website, <https://www.smartsheet.com/blog/essential-guide-writing-smart-goals>, for examples.



Short-term Goals (Must have at least 2):

Long-term Goals (Must have at least 2):

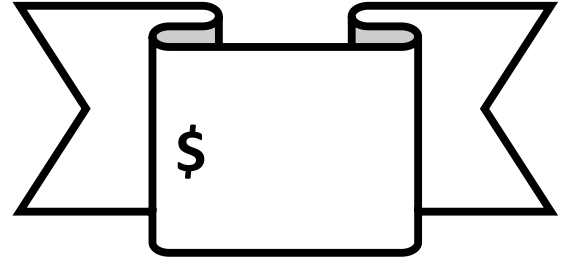
NAME: _____

Aligned to the following standards:
FFA.PL-C.; FFA.PL-D.; FFA.PL-F.; FFA.PG-J.; FFA.CS-M.; FFA.CS-N.;
FFA.CS-O.; CCSS.RI.9-10.4;
CCSS.W.9-10.2; CCSS.W.9-10.4; CCSS.SL.9-10.4; CRP.04; CRP.06, MP1,
MP2, MP6

List the components of the product/business and the cost for EACH.

Product/Business Component	Price per unit	Total
	Total:	

4.Total Price of product/business concept:



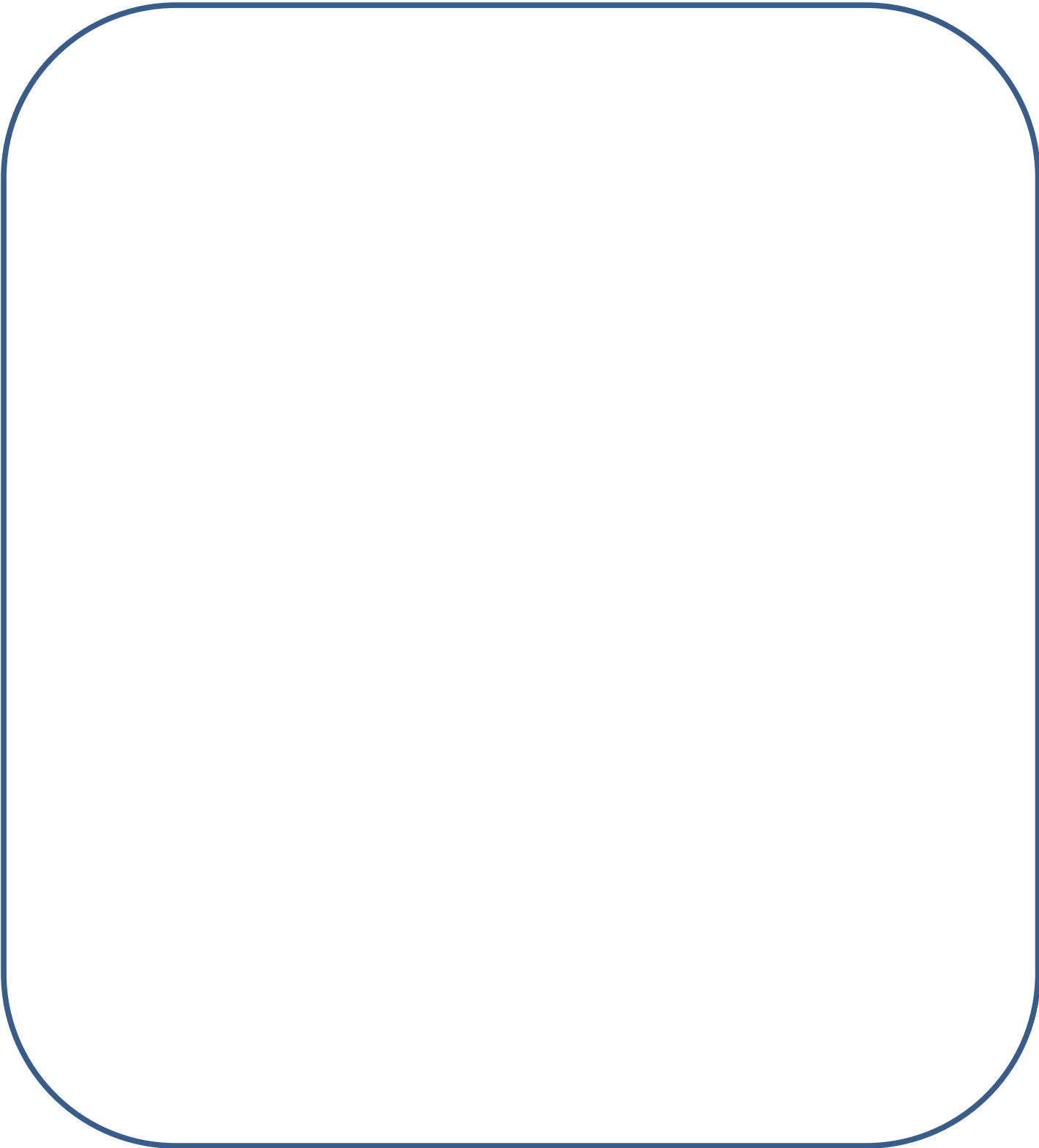
5. Location: Where do you plan to sell this product/business concept?

Why did you choose this location to sell your product?



NAME: _____

6. Promotion: Use the space below to create a promotional material of your choice (social media plan, brochure, flyer, etc.) to promote your product. (Include name of product, picture, price, etc.)



Aligned to the following standards:
FFA.PL-C.; FFA.PL-D.; FFA.PL-F.; FFA.PG-J.; FFA.CS-M.; FFA.CS-N.; FFA.CS-O.;
CCSS.RI.9-10.4;
CCSS.W.9-10.2; CCSS.W.9-10.4; CCSS.SL.9-10.4; CRP.04; CRP.06, MP1, MP2, MP6

NAME: _____

Indicator	Very strong evidence of skill 5-4 points	Moderate evidence of skill 3-2 points	Weak evidence of skill 1-0 points	Points Earned	Weight	Total Points
Business Proposal						
Mission statement	Useful mission statement that is relevant to the business	Mission statement is not totally relevant to the business.	Irrelevant, not matching business use		x 1	
Key planning assumption	Identifies and validates key assumptions in the strategy	Identifies and validates most of the key assumptions in the strategy	Does not surface the key assumptions or validation for the strategy		x 1	
Short- and long-term goals	Short- and long-term business goals are attainable and time-bound.	Short- and long-term business goals may not be attainable or are not time-bound.	Goals are missing or are irrelevant to the business.		x 1	
Target market	Clearly identified by demographics and product/service meets needs/wants of target group	Somewhat identified by demographics and product/service may meet needs/wants of target group	Not identified by demographics and product/service does not meet needs/wants of target group		x 1	
Strategies and Action Plan						
Product	Clearly evident what product/service is being provided	Somewhat evident what product/service is being provided	Unclear what product/service is being provided		x 1	
Price	Includes the pricing structure and explains why/how these prices were determined	Includes the pricing structure but does not explain how the prices were determined	Does not provide complete pricing structure; some products or services are missing; No rationale for the pricing strategy is given.		x 1	
Place	Location is very convenient for target market	Location is accessible for target market	Location is not very convenient for target market		x 1	
Promotion	Promotional material makes target market clearly aware of what the product/service is, what it does and where it is available	Promotional material makes target market somewhat aware of what the product/service is, what it does and where it is available	Promotional material does not make target market aware of what the product/service is, what it does and where it is available		x 1	
Position	Unique selling position (USP) in the market clearly determined	Unique selling position (USP) in the market is somewhat determined	Unique selling position (USP) in the market is not determined		x 1	

(The above rubric is taken from the National FFA Marketing Plan Career Development Event 2017-2021 Handbook. Access the handbook directly by visiting FFA.box.com/s/ihquogqlau5nesazrffzmmz4hz2nqmtk.)



NEW HORIZONS

SPRING 2019 TEACHING GUIDE



ARTICLE SUMMARY

Water Quality

Dive into this short read to learn why water quality and water conservation are an important issue in agriculture. This article also discusses how Purina focuses some of its efforts on water conservation.

BELL RINGER:

What is your definition of water conservation?

DISCUSSION QUESTIONS

1. Why is water conservation an important issue in agriculture?
2. How can you conserve water?
3. What is your definition of water rights? How do water rights affect water conservation?

ACTIVITY

Students should complete the bell ringer activity listed above by answering the question on their own paper. Once all students have written down an answer, have them discuss and explain their answers with their neighbors. After five minutes, call on a few students to share their answers.

Have students read the article "Questioning Water Quality." Students should then complete the worksheet "Water Quality" (Appendix 6). (Internet access is required for this activity.) This worksheet has three parts: (1) Students will define water rights, pick a state in **their region** and research that state's water rights, (2) students will then choose a state in a **different** region and research water rights for that state, and (3) students will respond to a writing prompt.

Have students complete the exit ticket before leaving class.

FFA TIP

Have your students create a flyer or poster board with water conservation tips that can be displayed above water fountains or hydration stations on your school campus.

SAE TIP

Apps can play a beneficial role in increasing ease and productivity in agriculture. Have students research agriculturally related apps. Examples include tracking water or feed use, alerting stock show competitors of their upcoming class, and advertising for local agricultural businesses. What other opportunities exist for app usage in agriculture? Is there a business opportunity teaching local producers how to use these apps?

VOCABULARY

Conservation
Natural resource
Waterways
Wetlands

EXIT TICKET

How would you explain this topic to elementary-aged students?

CAREER FOCUS AREA

Natural Resource Systems

RESOURCE HIGHLIGHT

U.S. Department of the Interior, U.S. Geological Survey
Water Quality Information Pages
<https://water.usgs.gov/owq/>

REFERENCES

<http://soilandwater.ohiodnr.gov/portals/soilwater/pdf/stream/stfs02.pdf>
https://www.waterboards.ca.gov/waterri-ghts/board_info/faqs.html, <https://www.waterrights.utah.gov/>
<https://www.oregon.gov/QWRD/WRDPublications1/aquabook.pdf>

APPENDICES

Appendix 6: Water Quality

STANDARDS ALIGNMENT

FFA Precept: FFA.PL-C, FFA.PL-D, FFA.PL-F, FFA.PG-J, FFA.CS-M, FFA.CS-N, FFA.CS-O • **AFNR Performance Element:** CS.01, CS.04 • **Common Core-Reading: Information Text:** CCSS.ELA-LITERACY.RI.9-10.4 • **Common Core-Writing:** CCSS.ELA-LITERACY.W.9-10.2, CCSS.ELA-LITERACY.W.9-10.4 • **Common Core-Speaking and Listening:** CCSS.ELA-LITERACY.SL.9-10.4 • **AFNR Career Ready Practices:** CRP04, CRP06 • **P21 Skills:** COMMUNICATION, CRITICAL THINKING AND PROBLEM SOLVING, INITIATIVE AND SELF-DIRECTION, LEADERSHIP AND RESPONSIBILITY

GROW IN THE CITY

THIS FFA CHAPTER PROVES URBAN GARDENS CAN PRODUCE PLENTY OF PRODUCE.

You don't need to have acres of tillable land to grow a bumper crop of vegetables. FFA members at Green Street Academy in Baltimore, Md., produce food on a campus surrounded by row houses, convenience stores and busy intersections. Agriscience teacher and FFA advisor Cole Bishop offers four tips for growing a successful urban garden.

1 PICK THE RIGHT SITE. In the absence of a farm field, build raised beds in vacant lots or parking lots. Rooftops are also ideal urban sites, but Bishop warns, "You'll need to pick plants that love sun or put up a shade cloth because it gets hot up there."

2 GO VERTICAL. Green Street Academy grows tomatoes, lettuce and herbs in hanging baskets to maximize

every square foot of its urban garden.

3 THINK BIG. It might be tempting to stick with small crops like tomatoes and peppers, but with good soil and sunlight, even corn will grow in urban areas. "Not every plant is going to work in every environment, but don't be afraid to try," Bishop says.

4 SPREAD THE WORD. Urban agriculture is getting more popular, but Bishop believes it's important to share information about garden projects on social media. "The more food growing in cities, the better, and you could help inspire others to start urban gardens," he explains.

— By Jodi Helmer

An urban garden can also make for a great supervised agricultural experience (SAE). Find SAE inspiration at FFA.org/SAEVideos.

Questions On WATER QUALITY

Water is one of the most important natural resources upon which agriculture depends. Farmers use water and nutrients judiciously. Even so, some runoff happens. Environmental, government, university and business representatives are collaborating with farmers for results. Here, Diane Herndon, senior manager of sustainability at Nestlé Purina, discusses the company's efforts to partner toward shared goals on water conservation and quality.

Q: CAN YOU GIVE AN EXAMPLE OF HOW PURINA HAS BECOME INVOLVED IN IMPROVING WATER QUALITY?

A: Nestlé Purina is supporting work across the United States where our ingredients are grown. In Indiana, we work with The Nature Conservancy, farmers and others on the Wabash River to create wetlands and woodlands that can remove up to 40 percent of the soil and nitrogen before the water flows downstream.

Q: WHY DO YOU ENGAGE THIS WAY?

A: We source healthy ingredients for our pet food recipes from America's farms. The programs to which we contribute help to ensure that farmland stays fertile and the environment stays healthy so that we have abundant ingredients available well into the future.

Q: OUT WEST, A LACK OF WATER IS OFTEN THE ISSUE, CORRECT?

A: Nestlé Purina and Cargill are working with The Nature Conservancy and farmers in Nebraska to collect water data through sensors and download it to farmers' smartphones. From there, they can control their irrigation pivots through an app, saving time, water and money. The project is expected to save 2.4 billion gallons of water from the Ogallala Aquifer over the project's three-year course.

— By Des Keller

NAME: _____

Appendix 6: Water Quality

Created: Spring 2019 by the National FFA Organization

Aligned to the following standards:

FFA.PL-C.; FFA.PL-D.; FFA.PL-F.; FFA.PG-J.; FFA.CS-M.; FFA.CS-N.;
FFA.CS-O.; CS.01.; CS.04.; CCSS.RI.9-10.4;
CCSS.W.9-10.2; CCSS.W.9-10.4; CCSS.SL.9-10.4; CRP.04; CRP.06

DIRECTIONS:

Read the article "Water Quality" in the Spring 2019 issue of *FFA New Horizons*. Answer the questions below and reference the map on page 2. The map is divided into the four regions of the National FFA Organization.

Part 1

1. What is the definition of water rights?

How would you explain water rights to a non-agriculturist?



2. Pick a state in **your region** (reference the map below).

Research the water rights for that state. Identify and describe/explain **3** facts about the water rights (list them below in the water droplets).

(Some websites to help start your research:

<http://soilandwater.ohiodnr.gov/portals/soilwater/pdf/stream/stfs02.pdf>

https://www.waterboards.ca.gov/waterrights/board_info/fags.html <https://www.waterrights.utah.gov/>

<https://www.oregon.gov/OWRD/WRDPublications1/aquabook.pdf>)

Which state did you choose? Write it here and circle it on the map: _____

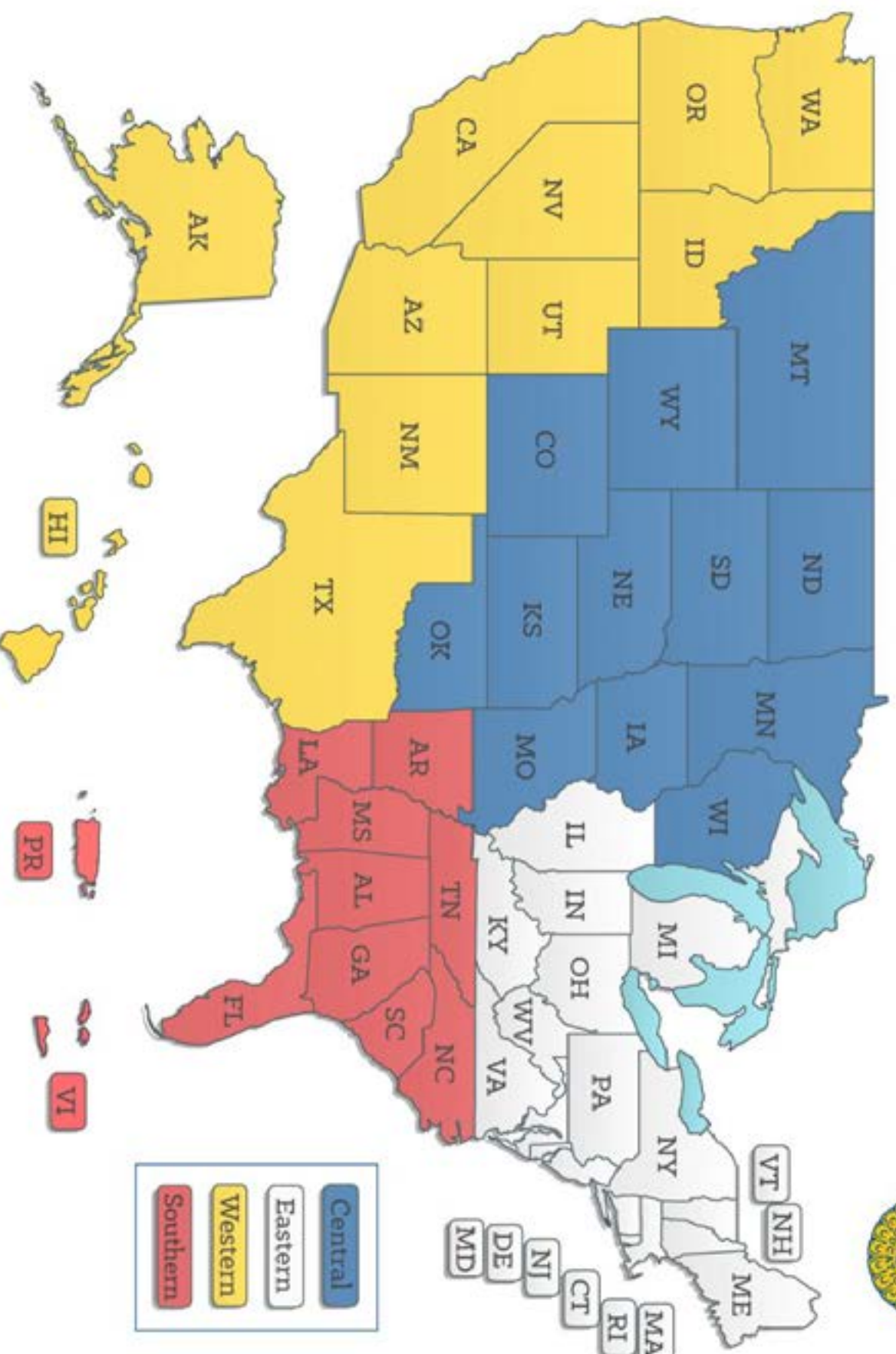
Fact 1 (Reference the site you use.)

Fact 2 (Reference the site you use.)

Fact 3 (Reference the site you use.)

NAME: _____

National FFA Organization Regions



NAME: _____

Part 2

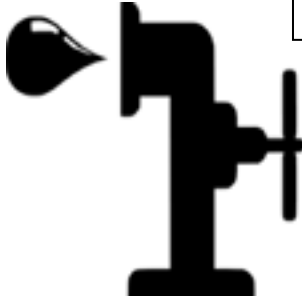
Aligned to the following standards:
FFA.PL-C.; FFA.PL-D.; FFA.PL-F.; FFA.PG-J.; FFA.CS-M.; FFA.CS-N.;
FFA.CS-O.; CS.01.; CS.04.;CCSS.RI.9-10.4;
CCSS.W.9-10.2; CCSS.W.9-10.4; CCSS.SL.9-10.4; CRP.04; CRP.06

Select a different state in **another region**. Research the water rights for that state.

1. What state did you choose? Write it here and circle it on the map: _____
What region is the state in? _____

2. Research the water rights for that state. Identify and describe/explain **3** facts about the water rights (list them below in the water droplets).

(Some websites to help start your research:
<http://soilandwater.ohiodnr.gov/portals/soilwater/pdf/stream/stfs02.pdf>
https://www.waterboards.ca.gov/waterrights/board_info/faqs.html, <https://www.waterrights.utah.gov/>,
<https://www.oregon.gov/OWRD/WRDPublications1/aquabook.pdf>)



Fact 1 (Reference the site you use.)

Fact 2 (Reference the site you use.)

Fact 3 (Reference the site you use.)

NAME: _____

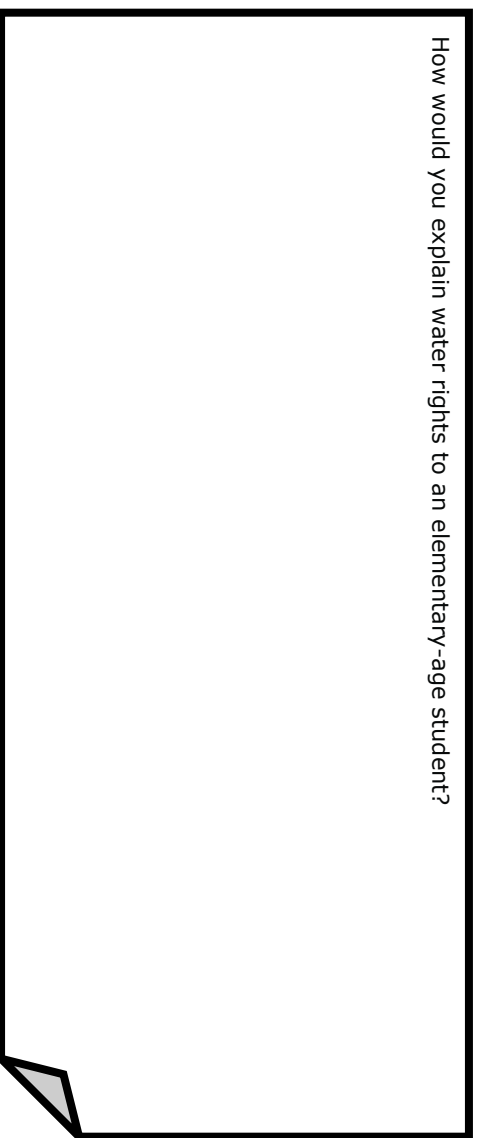
Aligned to the following standards:
FFA.PL-C.; FFA.PL-D.; FFA.PL-F.; FFA.PG-J.; FFA.CS-M.; FFA.CS-N.;
FFA.CS-O.; CS.01.; CS.04.;CCSS.RI.9-10.4;
CCSS.W.9-10.2; CCSS.W.9-10.4; CCSS.SL.9-10.4; CRP.04; CRP.06

Part 3

1. Describe how water rights affect agriculture. Provide three examples from the resources you reviewed.



How would you explain water rights to an elementary-age student?



NAME: _____

Aligned to the following standards:
FFA.PL-A.; FFA.PL-C.; FFA.PL-D.; FFA.PL-E.; FFA.PL-F.
FFA.CS-N; CCSS.ELA-Literacy.SL.9-10.2; CCSS.ELA-Literacy.W.9-10.4; CCSS.ELA-Literacy.RI.9-10.4; CRP.04;
CRP.06, AG2, AG5

KEY — Appendix 1: Service

Created: Spring 2019 by the National FFA Organization

DIRECTIONS:

Read the "Service for Service" article in the Spring 2019 issue of *FFA New Horizons*. Answer the questions below.

Part 1

In the article, it mentions the FFA chapter raised funds to create a puppy care package for the new owner.

1. What items should be included in a puppy care package? *Identify 3. (Refer to the article.)*



Dog treats



Dog Food



Dog Toys



2. Go to the Tractor Supply website (www.tractorsupply.com) and find the items you listed for question 1. Record the prices below and explain why you chose those products.



\$ _____ Why?

Answers may vary. Examples for dog treats:

- Zuke's Mini Naturals Dog Treats; 16 oz. = \$14.99
- Greenies Original Teenie Dental Dog Treats, 36 oz. = \$33.99



\$ _____ Why?

Answers may vary. Examples for food:

- Retriever Mini Chunk Dog Food; 50 lb. bag = \$19.99
- Retriever Hi Protein Dog Food; 50 lb. bag = \$22.99

NAME: _____

Aligned to the following standards:
FFA.PL-A.; FFA.PL-C.; FFA.PL-D.; FFA.PL-E.; FFA.PL-F.
FFA.CS-N; CCSS.ELA-Literacy. SL.9-10.2; CCSS.ELA-
Literacy.W.9-10.4; CCSS.ELA-Literacy.RI.9-10.4; CRP.04;
CRP.06, AG2, AG5



\$

Why?

Answers may vary. Examples for toys:

- Spot Mallard Duck Dog Toy = \$7.99
- Kurgo Wapple Ball Dog Toy = \$7.99

Part 2

1. Behavior is not only key for service dogs, but for at-home pets as well. Why is behavior/obedience important for animals?

Answers may vary. Example: Behavior/obedience is important for the safety of the animal as well as the owner.

2. What are some important behaviors that should be included in behavior/obedience training for a dog? (Write answers in the three boxes below.)

Answers may vary. Examples: listening, following commands, etc.



NAME: _____

Aligned to the following standards:
FFA.PL-A.; FFA.PL-C.; FFA.PL-D.; FFA.PL-E.; FFA.PL-F.
FFA.CS-N; CCSS.ELA-Literacy. SL.9-10.2; CCSS.ELA-Literacy.W.9-10.4; CCSS.ELA-Literacy.RI.9-10.4; CRP.04; CRP.06, AG2, AG5

3. Follow this link https://www.tractorsupply.com/known-how_pets-livestock_dog_how-to-train-a-dog-for-obedience-training.html to learn more about obedience training for dogs. Answer the prompts below.

How do you train your dog to be safer around people and in the outdoors?

In order to prevent biting, chasing, etc. to humans or other animals, your dog should be taught the commands of "come," "sit," "stay" and "heel."

4. What are three tips for how to start training a dog?



If training your dog yourself, reference a dog training book and videos written by training experts. (Several are available at Tractor Supply.)



Dog obedience training classes.



One-on-one private dog training is also a good option for dogs with extreme behavior problems or older dogs that may not have been properly socialized and/or trained at a young age.



What community service-related activities can your chapter/school do with pets (dogs, cats, etc.)?
Answers will vary.

Part 3

Reference the "Dogs on Deployment" section on the Tractor Supply website, https://www.tractorsupply.com/known-how_pets-livestock_pet-care, to answer the question below.

	1. What is the purpose of "Dogs on Deployment?" Dogs on Deployment promotes responsible, life-long pet ownership by military pet owners by advocating for military pet owner rights, providing education resources and granting financial assistance for military pet owners during times of emergency.



In need of funding for a community service project idea? Check out the FFA Living to Serve grants FFA.org/livingtoserve/grants/



NAME: _____

Aligned to the following standards:
FFA.PL-A; FFA.PG-J; FFA.CS-M; FFA.CS-N; FFA.PL-F; FFA.PG-I; CCSS.RI.9-10.2;
CCSS.RI.9-10.4; CCSS.RI.9-10.8; CCSS.ELA.W.9-10.2; CCSS.SL.9-10.2;
CCSS.ELA.SL.9-10.1; CCSS.ELA.WHST.9-10.4; MP5; MP6; CRP.02; CRP.04

KEY — Appendix 2: Lions and Tigers and Rhinos, Oh My!

Part 1

Created: Spring 2019 by the National FFA Organization

DIRECTIONS:

Read the "Lions and Tigers and Rhinos, Oh My!" article in the Spring 2019 issue of *FFA New Horizons*. Complete the following activities.



What 6 medical skills did students get to learn during this experience?

1. Performing health checks
2. Preparing animals for transport
3. Administering antibiotics and dewormers
4. Applying parasite medication
5. Injecting microchips
6. Treating wounds

What overarching theme was needed and learned through this experience? Unscramble the letters to find out!

S A F E T Y

Y S F T E A

DIRECTIONS:

Anyone working with animals should always be properly trained and prepared to keep themselves, colleagues and the animals safe. Learn about the different hazards that can occur and what to do if one does occur.

Read about the three major categories of hazards from Colorado State University, <https://vpr.colostate.edu/acup/hazards-related-to-working-with-animals/>, and summarize each in 1 to 2 sentences with a minimum of two specific examples per hazard.

Chemical

Coming into contact chemicals that could be harmful to humans or animals

Ex. acids, bases

Other answers may be presented.



Physical

Coming into contact with an action that can cause physical harm

Ex. bites, kicks

Other answers may be presented.

Biological

Coming into contact with bacteria, parasites, etc.

Ex. allergens, roundworm

Other answers may be presented.



NAME: _____

Part 3

DIRECTIONS:

Using your chart and brochure, complete the following scenarios:



1. You are working as a veterinary technician. You walk into an exam room and find a used syringe and needle lying on the exam table.
- a. What type of hazard does this pose? Circle your response: Chemical **Physical** Biological
- i. Explain your selection: **An exposed needle could cause a physical hazard if someone were to be stuck with the needle.**
- ii. How should you correct the situation? **Put on gloves and place the syringe and needle in the sharps container.**

2. You are helping at your local veterinarian's office when you notice water on the floor.
- a. What type of hazard does this pose? Circle your response: Chemical **Physical** Biological
- i. Explain your selection: **If a person does not notice the water on the floor, they could slip and fall.**
- b. What should you do in this situation? **Clean the water and use a wet floor sign.**

3. You are cleaning the dog kennels when you spill some bleach on your hands.
- a. What type of hazard does this pose? Circle your response: **Chemical** Physical Biological
- i. Explain your selection: **Bleach is a chemical that can cause irritation and burns on the skin.**
- b. What should you do in this situation? **Look at and follow your Material Safety Data Sheet (MSDS).**

4. You currently work in a dog grooming salon when you notice a tick on the skin of a German shepherd.
- a. What type of hazard does this pose? Circle your response: Chemical Physical **Biological**
- i. Explain your selection: **Parasites pose a biological hazard because they can bite and cause further illness.**
- b. What should you do in this situation? **With gloves, remove and crush the tick. Treat for ticks and clean your work area.**

NAME: _____

Aligned to the following standards:
FFA.PL-A; FFA.PG-J; FFA.CS-M; FFA.CS-N; FFA.PL-F; FFA.PG-I; CCSS.RI.9-10.2;
CCSS.RI.9-10.4; CCSS.RI.9-10.8; CCSS.ELA.W.9-10.2; CCSS.SL.9-10.2;
CCSS.ELA.SL.9-10.1; CCSS.ELA.WHST.9-10.4; MP5; MP6; CRP.02; CRP.04

DIRECTIONS:

When FFA members were preparing for their trip to Africa, they would have completed training on the hazards that could occur while working with the animals. Identify a chemical, physical and biological hazard that the students could have encountered on their trip.

Chemical

Answers will vary. Example: anesthetic agent



Physical

Answers will vary. Example: biting, scratching, tripping

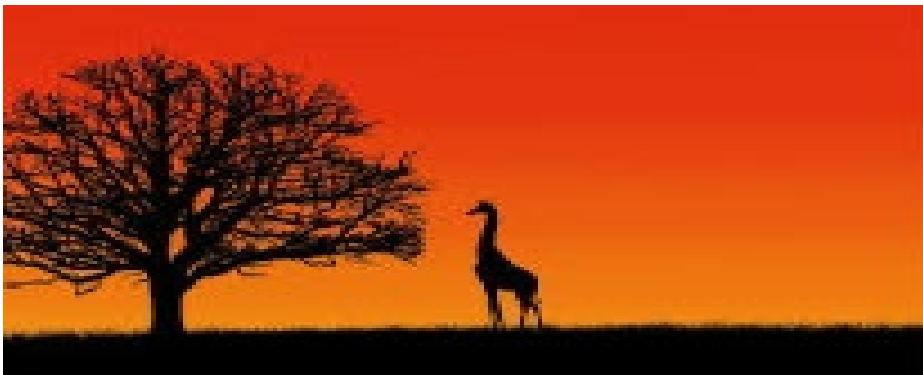


Biological

Answers will vary. Examples: parasites, urine



In 2 to 3 sentences, describe why safety around animals is so incredibly important. **Answers will vary.**



NAME: _____

Aligned to the following standards:
FFA.PL-A; FFA.PL-E; FFA.PG-J; FFA.CS-M; FFA.CS-N; CCSS.ELA.SL.9-10.1;
CCSS.ELA.SL.9-10.2; CCSS.ELA.SL.9-10.4; CCSS.ELA.WHST.9.10.4; MP1; MP5; MP6;
CRP.02; CRP.04; CRP.05; CRP.06; CRP.11

KEY — Appendix 3: Plants Are Amazing!

Created: Spring 2019 by the National FFA Organization

DIRECTIONS:

Watch the video "What is a Plant?" until the 7:00 mark and record the information below. The video URL is <https://youtu.be/qULkjDccCeY>.

What allows plants to stand?

Cell wall

What aids in the green color of plants?

Chlorophyll

How do plants adapt to their environment to meet their survival needs? Identify 2 ways.

Answers will vary. Answer examples: carnivorous plants, spines/needles, storing water, etc.



Plants utilize sunlight to create food and energy through this process:

Photosynthesis

How would all the plant information listed above and discussed in the video impact the plants a person would select for a garden or landscape?

Plants need to be selected based on the amount of light they need, space, nutrition requirements, climate requirements and use.

Identify 3 ways in which plants impact humans.

Answers will vary. Examples include provide oxygen, provide food for humans and animals, shade, etc.

NAME: _____

Aligned to the following standards:
FFA.PL-A; FFA.PL-E; FFA.CS-N; FFA.PG-J; FFA.PL-C; CCSS.ELA.RI.9-10.2;
CCSS.ELA.WHST.9-10.4; MP5; MP6; CRP.02; CRP.04

KEY — Appendix 4: Female Leadership

Created: Spring 2019 by the National FFA Organization

Part 1

DIRECTIONS:

Read the article "Let's Celebrate Women in FFA!" in the Spring 2019 issue of *FFA New Horizons* and complete the following activities.

Using the table, compare and contrast the first and most recent female National FFA presidents and their time in office. Things to consider: what was happening during the two different time periods? What did each accomplish in and out of FFA?

Answers will vary. Some examples are below.



	Jan Eberly, 1982	Similarities	Breanna Holbert, 2017
1.	First female National FFA president	Female National FFA president	First African American female National FFA president
2.	Ronald Reagan was president of the United States.	Male president of the United States	Donald Trump is president of the United States.
3.	Emblem said Vocational Agriculture.	Both include education in agriculture	Emblem reads Agricultural Education.
4.	From Fallbrook, Calif.	From California	From Lodi-Tokay, Calif.
5.	California FFA president	Both California state officers	California FFA secretary.
6.	University of California-Davis	Both attended college in California	California State University-Chico

NAME: _____

Aligned to the following standards:

FFA.PL-A; FFA.PL-E; FFA.CS-N; FFA.PG-J; FFA.PL-C; CCSS.ELA.RI.9-10.2;
CCSS.ELA.WHST.9-10.4; MP5; MP6; CRP.02; CRP.04

Part 2

DIRECTIONS:

Women not only made strides by being accepted into FFA in 1969, but also had many accomplishments in agriscience. Cut out each picture, name scramble and fact (on the next page). Unscramble each name, then glue the matching picture and name to a blank piece of paper. Next, identify the historical date range and accomplishment of each scientist and glue them next to the picture. (There will be one historical date range and one accomplishment for each picture).



Rachel Carson (1907–1964):
Known for writing *Silent Spring* and bringing attention to chemical use in the agriculture industry.



Jane Goodall (1934–present):
Known for working and living with chimpanzees to better understand their behavior. She brought light to animal rights and behavior.



Barbara McClintock (1902–1992): A geneticist that studied cells in corn. Won the Nobel Peace Prize for her work.



Katia Krafft (1942–1991): Among the first to photograph and film volcanoes and their eruptions.



Maria Daly (1921–2003): A chemist who studied the impact of foods on health through chemistry.



Temple Grandin (1947–present): Known for her work in animal behavior. She has worked to find and implement more humane methods of slaughtering livestock.

NAME: _____

Aligned to the following standards:
FFA.PL-C.; FFA.PL-D.; FFA.PL-F.; FFA.PG-J.; FFA.CS-M.; FFA.CS-N.;
FFA.CS-O.; CS.01.; CS.04.; CCSS.RI.9-10.4;
CCSS.W.9-10.2; CCSS.W.9-10.4; CCSS.SL.9-10.4; CRP.04; CRP.06

KEY — Appendix 6: Water Quality

Created: Spring 2019 by the National FFA Organization

DIRECTIONS:

Read the article "Water Quality" in the Spring 2019 issue of *FFA New Horizons*. Answer the questions below and reference the map on page 2. The map is divided into the four regions of the National FFA Organization.

Part 1

1. What is the definition of water rights?
According to Merriam-Webster.com, water rights is a right to the use of water (as for irrigation).

2. Pick a state in your region (reference the map below).
Research the water rights for that state. Identify and describe/explain **3** facts about the water rights (list them below in the water droplets).
(Some websites to help start your research:

<http://soilandwater.ohiodnr.gov/portals/soilwater/pdf/stream/stfs02.pdf>
https://www.waterboards.ca.gov/waterrights/board_info/faqs.html, <https://www.waterrights.utah.gov/>,
<https://www.oregon.gov/OWRD/WRDPublications1/aquabook.pdf>)

Which state did you choose? Write it here and circle it on the map: **Ohio**

How would you explain water rights to a non-agriculturist?



Fact 1 (Reference the site you use.)

Example: According to this document (<http://soilandwater.ohiodnr.gov/portals/soilwater/pdf/stream/stfs02.pdf>), Ohio's Constitution does not address the question of who owns Ohio's streams. The answer must be derived from the common law.

Fact 2 (Reference the site you use.)

Fact 3 (Reference the site you use.)

NAME: _____

Part 2

Select a different state in another region. Research the water rights for that state.

1. What state did you choose? Write it here and circle it on the map: **Oregon**
What region is the state in? **Western**

2. Research the water rights for that state. Identify and describe/explain **3** facts about the water rights (list them below in the water droplets).

(Some websites to help start your research:

<http://soilandwater.ohiodnr.gov/portals/soilwater/pdf/stream/stfs02.pdf>

https://www.waterboards.ca.gov/waterights/board_info/faqs.html, <https://www.waterrights.utah.gov/>,

<https://www.oregon.gov/OWRD/WRDPublications1/aquabook.pdf>)

Aligned to the following standards:
FFA.PL-C.; FFA.PL-D.; FFA.PL-F.; FFA.PG-J.; FFA.CS-M.; FFA.CS-N.;
FFA.CS-O.; CS.01.; CS.04.;CCSS.RI.9-10.4;
CCSS.W.9-10.2; CCSS.W.9-10.4; CCSS.SL.9-10.4; CRP.04; CRP.06

Fact 1 (Reference the site you use.)

Example: Oregon's water laws are based on the doctrine of prior appropriation. This means the first person to obtain a water right on a stream is the last to be shut off in times of low streamflows.

<https://www.oregon.gov/OWRD/WRDPublications1/aquabook.pdf>

Fact 2 (Reference the site you use.)

Fact 3 (Reference the site you use.)