NEW HORIZONS

FALL 2019 TEACHING GUIDE

IN THIS GUIDE, YOU WILL FIND ACTIVITIES FOR SIX ARTICLES IN THE FALL 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.)

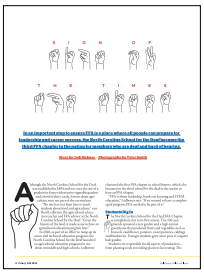
SCHOLARS SAY...

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

Artisan	Flight physiology
Democratic Republic of Congo	Aerial
Service	Multispectral
Heritage	Synthetic
Hispanic	GMO
Latino	Pesticide
Minority	Compost
Effortless	Organic
Inspire	Antibiotics
Priceless	Hormones
Drone	Conventional
Aviation	Contamination
Flight simulator	Affinity
Aerodynamics	STEM

VOCABULARY ACTIVITY

Word Wall: Have the class create a word wall. Each student should choose a word (no duplicates unless there are more students in the class than there are words). Each student will write the word and definition large enough to read from a short distance on a sheet of paper. In addition to the definition, students should include a visual representation of the definition. Once complete, post the papers around the room.



Sign of the Times Appendix:

Did you know there are schools for the deaf? And some of them have FFA chapters! Read this article to learn how the North Carolina School for the Deaf became the third FFA chapter in the nation for members who are deaf and hard of hearing.

Appendix 1 – Let's Learn Sign Language

Here's to Our Hispanic Members:

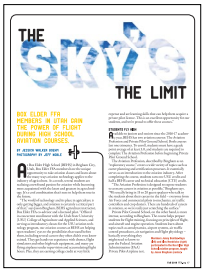
The number of Latino members in FFA continues to grow. From Sept. 15 to Oct. 15, we recognize National Hispanic Heritage Month. Find out more about an FFA chapter that celebrates the contributions of Latino members year-round.

Appendix 2 – National Hispanic Heritage Month

Changing Lives Through Ag Ed:

Agricultural education teachers have the unique opportunity to develop leadership, personal growth and career success in students, which can have a lasting impact on students' lives. Learn what current agricultural educators have to say about their experiences.

Appendix 3 – Educating the Future



The Sky's the Limit:

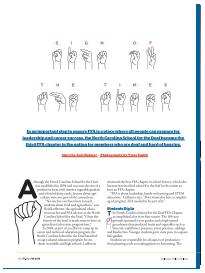
Box Elder FFA members in Utah have a unique opportunity to learn about aviation. They have access to aviation classes and learn about the many ways aviation technology impacts the agriculture industry.

Appendix 4 – The Sky's the Limit

Talking Points: Organic vs Conventional Foods:

Do you get asked or even wonder yourself about the difference in organic versus conventional foods? Read the talking points presented in this article to learn more about these foods and how to answer questions that you may get on this topic.

Appendix 5: : Organic vs. Conventional Food



ARTICLE SUMMARY

Sign of the Times

Did you know there are schools for the deaf? And some of them have FFA chapters! Read this article to learn how the North Carolina School for the Deaf became the third FFA chapter in the nation for members who are deaf and hard of hearing.

BELL RINGER:

How are you inclusive of students and FFA members?

DISCUSSION QUESTIONS

1 How is your agriculture class and/or FFA chapter inclusive of all students and members?

2.How can your agriculture class and/or FFA chapter be more inclusive of all students and members?

3. Why is it important to be inclusive?

ACTIVITY

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

Each student needs a copy of the "Let's Learn Sign Language" worksheet (Appendix 6). Students should read the article "Sign of the Times." After reading the article, have students complete the worksheet. The worksheet is divided into two parts: (1) students will answer questions related to the article and (2) students will learn how to sign their name and the first line of their school's fight song (or the first line of their favorite college team's fight song or the first line of their favorite song). Students will then partner up and create a short video showcasing their sign language skills.

Have students complete the exit ticket before leaving class.

FFA TIP

Invite a member of your FFA Alumni and Supporters chapter (or member of the community) that knows sign language to speak to the FFA chapter and your classes about how and why they learned sign language.

SAE TIP

Encourage students to explore the various SAE opportunities available that have ties to plant science. Visit the SAE Idea Cards to research various topics: https://FFA.box.com/v/saeideacards.

VOCABULARY

Affinity
STEM

EXIT TICKET

Write down three things you learned, two things you found unique or interesting and one thing you have a question about.

CAREER FOCUS AREA

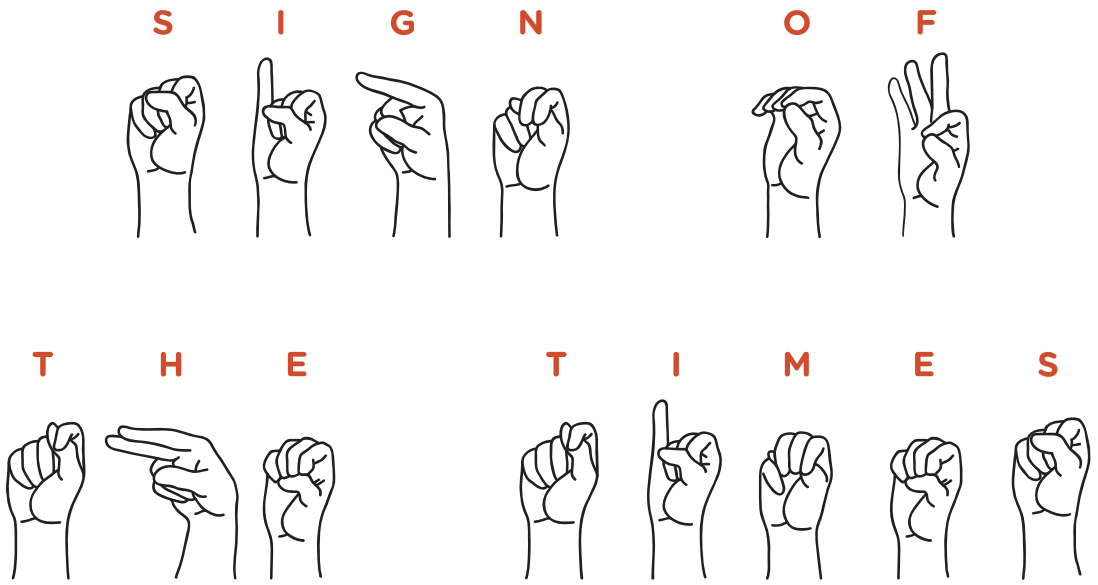
Any

APPENDICES

Appendix 1 - Let's Learn Sign Language

STANDARDS ALIGNMENT

• **FFA Precept:** FFA.PL-A, FFA.PL-C, FFA.PL-E, FFA.PG-J, FFA.CS-M, FFA.CS-N, FFA.CS-O • **Common Core-Reading: Information Text:** CCSS.ELA.RI.9.10.2, CCSS.ELA.RI.9-10.4 • **Common Core-Writing:** CCSS.ELA-LITERACY.W.9-10.2 • **Common Core – Speaking and Listening:** CCSS.ELA-LITERACY.SL.9-10.4, CCSS.ELA-LITERACY.W.9-10.4 • **Common Core – Literacy in Science & Technical Subjects: Writing:** CCSS.ELA-Literacy.WHST.9.10.4 • **Green/Sustainability Knowledge and Skill Statements:** AFNR Career Cluster, Statement 3 • **Common Core – Math Practices:** MP2, MP6 • **AFNR Career Ready Practices:** CRP.02, CRP.04 • **P21 Skills:** COMMUNICATION, CRITICAL THINKING AND PROBLEM SOLVING, GLOBAL AWARENESS, INITIATIVE AND SELF-DIRECTION, LEADERSHIP AND RESPONSIBILITY, THINK CREATIVELY



In an important step to ensure FFA is a place where all people can prepare for leadership and career success, the North Carolina School for the Deaf became the third FFA chapter in the nation for members who are deaf and hard of hearing.

Story by Jodi Helmer • Photography by Tyler Smith

Although the North Carolina School for the Deaf was established in 1894 and was once the site of a productive farm with massive vegetable gardens and a herd of dairy cattle, lessons about agriculture were not part of the curriculum.

"No one has ever been here to teach students about food and agriculture," says Reid Ledbetter, the agricultural education teacher and FFA advisor at the North Carolina School for the Deaf. "Given the history of the land, it made sense to have an agricultural education program here."

In 2018, as part of an effort to ramp up its career and technical education program, the North Carolina School for the Deaf launched an agricultural education program for students in middle and high schools. Ledbetter chartered the first FFA chapter in school history, which also became just the third school for the deaf in the nation to have an FFA chapter.

"FFA is about leadership, hands-on learning and STEM education," Ledbetter says. "If we wanted to have a complete ag ed program, FFA needed to be part of it."

Students Dig In

The North Carolina School for the Deaf FFA Chapter accomplished a lot in its first season. The 106-acre grounds sprouted a new garden and a high-tunnel greenhouse that produced fruits and vegetables such as broccoli, cauliflower, potatoes, sweet potatoes, cabbage and blueberries. Younger students grew snow peas in a square bale garden.

Students are responsible for all aspects of production – from planting seeds to tending plants to harvesting. The

Sign language: Pathlord, Getty Images


NORTH CAROLINA
AGRICULTURAL
FFA
EDUCATION
ACHFOR THE DEAF

gardens do not grow enough fresh fruits and vegetables to serve all of the students living on campus, so the produce is distributed to families of students through the onsite food bank. Students take bags of fresh food home on weekends. Growing food on the campus is about more than feeding families in need, Ledbetter says.

"Students learn best by getting out there and trying new things, so we try to incorporate as many hands-on activities as we can," he says. "Most of the students at our school are from cities or urban areas and have never had these opportunities before."

High school senior Rebecca Carson spent a lot of time among the cows, pigs, goats, horses, chickens and rabbits at her grandparents' farm, but she appreciated classes on plant and animal sciences, and the chance to put those lessons into action on the school farm.

Left: George Righter, Rebecca Carson and KaZoua Vue say, "We love FFA!" Opposite, bottom: Advisor Reid Ledbetter signs. "Students learn by getting out there and doing things, so we try to incorporate as many hands-on activities as we can," he says.

"My friends encouraged me to join FFA because it was fun learning outside the classroom," she says through a sign language interpreter.

Carson developed an immediate affinity for agricultural education and became the vice president of the North Carolina School for the Deaf FFA Chapter.

Member KaZoua Vue, 18, has a small flock of chickens at home, and she loves working with the chicks at the North Carolina School for the Deaf. The agricultural education program purchased eight chickens this spring and plans to continue adding to the flock. When the hens start laying, the eggs will be distributed through the school food bank.

"I like weighing the chickens and watching them change each week," Vue says.

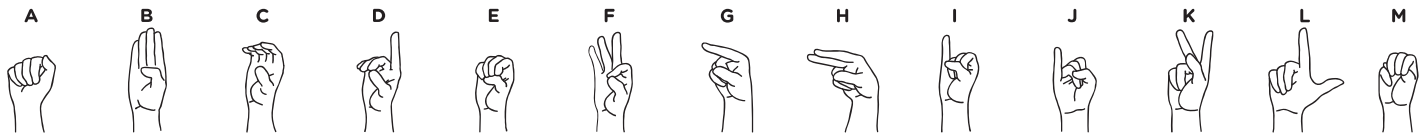
Too Good to Pass Up

The FFA chapter is growing as fast as the chicks.

The North Carolina School for the Deaf serves deaf and hard of hearing students from 43 North Carolina counties. The FFA chapter, which started with just 10 students, has almost doubled in size and earned an award at the state FFA convention for the biggest increase in membership. Two students attended the North Carolina state FFA convention to accept the award.

For students such as high school senior and chapter president George Righter, 18, the chance to get their hands dirty while connecting with the source of their foods was too good to pass up.

"My first year in agriculture science applications class was my first real experience in agriculture," he says through a sign



Sign language: Pathlord, Getty Images

A Movement for Deaf Members

The North Carolina School for the Deaf was the third school for deaf and hard of hearing students to charter an FFA chapter. So which were the first two?

The agricultural education program and FFA chapter at the West Virginia School for the Deaf and Blind in Romney, W.Va., dates back to the 1960s. Members learn welding, learn how to hatch chickens and tend the flock, work in the greenhouse and more. During an annual plant sale each spring, students sell the annuals, vegetables and hanging baskets they grew in the greenhouse.

"In its heyday, the school had a fully operational farm on campus with a bakery, dairy, processing facility and greenhouses," says West Virginia School for the Deaf agricultural education teacher and FFA advisor Amanda Whitacre. "Our students still love to do things with their hands and grow things. It provides a sense of accomplishment."

The Kentucky School for the Deaf in Danville, Ky., started its agricultural education program and FFA chapter in 2009, turning part of its 23-acre campus into an outdoor classroom for students interested in getting hands-on education in agriscience.

language interpreter. "It's important for all students to know where their food comes from. I like working outside planting the potatoes, and I have an interest in teaching and STEM education."

All of the FFA members and agricultural education students are excited to learn more about agriculture and participate in activities such as growing vegetables, raising chickens, growing gourds, and making birdhouses and grapevine wreaths, Ledbetter says.

Students learned about mechanics in the agriculture science applications class, and they had the chance to see all of the latest high-tech farm equipment during field trips to the Southern Farm Show in 2018 and 2019.

"We try to do all of the things other chapters would do," Ledbetter says. "We participate in local, regional and state activities and plan to attend the next National FFA Convention & Expo in Indianapolis."

Community Assistance

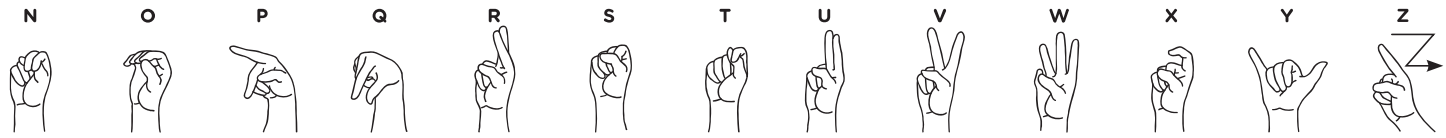
Ledbetter has a long history in agriculture and education. He participated in FFA in high school and worked on the dairy research farm while studying agricultural education and animal science at North Carolina State University. He is also a first-generation dairy farmer, and he taught agricultural education in Iredell and Scotland counties. He had no background, however, in sign language when he accepted the position at the North Carolina School for the Deaf.

In his first year in the classroom, Ledbetter taught with the help of an interpreter. He spent the last two years taking American Sign Language classes and can now communicate with students in ASL.

In addition to communicating with students, Ledbetter has spread the word about the new agricultural education program and FFA chapter in the local community, and he's thrilled with the amount of support the school has received.

The North Carolina Tobacco Trust Fund and Carolina Farm Credit provided grants to help the school purchase a hoop house, garden tools and FFA jackets. The Burke County Beekeepers Association donated a beehive and bees. The Burke County Master Gardeners paid the FFA dues for the fledgling chapter. Farm Bureau donated copies of its 2019 Book of the Year for students.

"The community sees it as a really great opportunity to connect with the school and the students," Ledbetter says. "There is a lot of excitement about the program. We're small but growing. I'm the ag teacher so I might be biased, but there is no other program this school could start that would give these students such amazing opportunities." •



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

Appendix 1: Let's Learn Sign Language!

Created: Fall 2019 by the National FFA Organization

Part 1

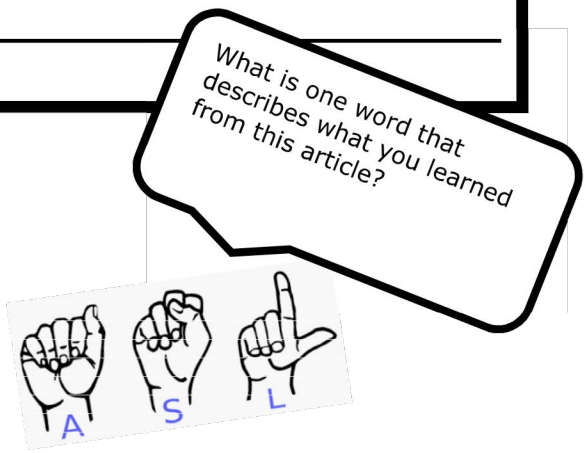
DIRECTIONS:

Read the article "Sign of the Times" in the Fall 2019 issue of *FFA New Horizons* and answer the questions below.

1. What year was the North Carolina School for the Deaf established?
   a. 1994
   b. 1894
   c. 1899
   d. None of the above

2. Explain why the North Carolina School for the Deaf launched an agricultural education program and why they chartered an FFA chapter.

3. What did the FFA chapter accomplish in its first season?



4. How many FFA members did the North Carolina School for the Deaf start with? _____ How has their chapter membership grown? _____

5. After you have identified one word that describes what you have learned (in the box above), draw your word using sign language images in the space below. (You might need to complete Part 2 of this worksheet first.)

NAME: _____

Part 2

DIRECTIONS:

Utilize the following websites, or similar sites, to complete the questions and activities below: https://lifeprint.com/asl101/topics/wallpaper1.htm and https://www.handspeak.com/.

1. Click on one of the links above to learn how to spell your name in sign language.

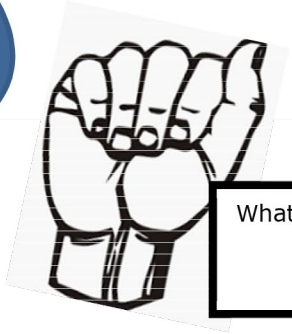
Step 1: Learn how to sign your name.

What is this sign?

Step 2: Learn how to sign the first line of your school's fight song, the first line of your favorite college team's fight song or the first line of your favorite song.

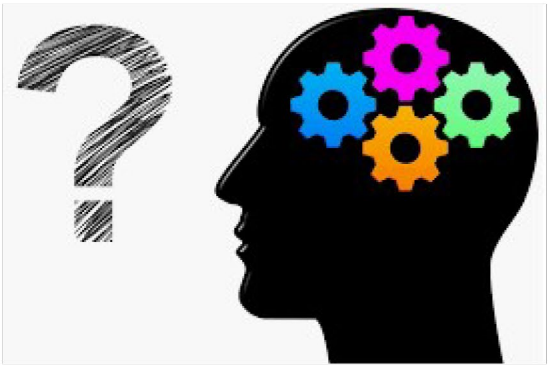
Step 3: With a partner, create a short video (at least 60 seconds in length). The video should include the following:

-you signing your name
-your partner signing his or her name
-you signing the first line of your chosen song
-your partner signing the first line of his or her chosen song



What is this sign?

2. How can you and your classmates talk with and interact with others from different backgrounds and cultures?



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THE feed

HERE'S TO OUR HISPANIC MEMBERS

THE ARIZONA FFA CHAPTER CELEBRATES THE CONTRIBUTIONS OF HISPANIC MEMBERS YEAR-ROUND.

THE COMPLETE OFFICER TEE COLLECTION

Available at StoreFFA.org

ARTICLE SUMMARY

Here's to Our Latino Members

The number of Latino members in FFA continues to grow. From Sept. 15 to Oct. 15, we recognize National Hispanic Heritage Month. Find out more about an FFA chapter that celebrates the contributions of Latino members year-round.

BELL RINGER:

Why is it important to recognize and celebrate different cultures and heritages?

Have students share responses with the class.

DISCUSSION QUESTIONS

1. What is National Hispanic Heritage Month?

2. What impact have Latino's had in and throughout the United States?

ACTIVITY

On their own paper, have students complete the bell ringer activity. Once all students have written 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 "Here's to Our Latino Members" and then complete the worksheet, "National Hispanic Heritage Month" (Appendix 2). The worksheet has two parts. (1) Students will answer two questions from the article and unscramble the name of each person pictured on the worksheet. Students will need to cut out all the pictures and glue the picture and name to a blank piece of paper. Students will identify the historical date range and accomplishment of each individual and glue them next to the picture. There will be one historical date range and one accomplishment for each picture. (2) Students will select a country that has Hispanic roots and Spanish as the official language but does not share a border with the United States (Ex. Argentina, Bolivia, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, Spain, Uruguay, Venezuela). Students will then research the country. To summarize what they have learned, using three to five sentences, students will describe why a person might want to visit the country they selected.

Have students complete the exit ticket before leaving class.

FFA TIP

Host an event to celebrate National Hispanic Heritage Month. This can be in class or for the whole chapter.

SAE TIP

If students are able to speak about and translate agricultural science and production terms into a second language, encourage them to provide language translation services for agricultural businesses. This type of SAE would be eligible for FFA awards and degrees.

VOCABULARY

Heritage
Hispanic
Latino
Minority

EXIT TICKET

Why do we recognize National Hispanic Heritage Month?

CAREER FOCUS AREAS

Any

RELATABLE WEBSITES

National Hispanic Heritage Month: HispanicHeritageMonth.org

APPENDICES

Appendix 2: National Hispanic Heritage Month

STANDARDS ALIGNMENT

• **FFA Precept:** FFA.PL-A, FFA.PL-C, FFA.PL-E, FFA.PG-J, FFA.CS-N • **Common Core-Literacy in Science & Technical Subject: Writing:** CCSS.ELA.WHST.9-10.4 • **Common Core-Math Practices:** MP5, MP6 • **AFNR Career Ready Practices:** CRP.02, CRP.04 • **P21 Skills:** COMMUNICATION, GLOBA AWARENESS, INITIATIVE AND SELF-DIRECTION, LEADERSHIP AND RESONSIBILITY, THINK CREATIVELY

HERE'S TO OUR HISPANIC MEMBERS

THIS ARIZONA FFA CHAPTER CELEBRATES THE CONTRIBUTIONS OF HISPANIC MEMBERS YEAR-ROUND.

Although the North American Association for National Hispanic Heritage Month is Sept. 15 through Oct. 15, there's no better time than the present to celebrate the growing population of Hispanic FFA members. Hispanic farmers represent a growing sector of agriculture in the United States, and Hispanics are the largest group of minority FFA members. In the 2018-19 school year, the National FFA Organization included more than 100,000 Hispanic members, representing 14.8 percent of its membership.

The AAEC South Mountain High School FFA Chapter in Phoenix works hard to make sure all of its members, parents and alumni and supporters feel included and valued. More than 82 percent of students at the school come from Hispanic families, and 75 percent of the chapter's FFA officer team is Hispanic.

In 2018, the chapter adopted a bilingual FFA opening ceremony, vowing to always perform its opening ceremonies and slideshows at its banquet in both Spanish and English going forward. There are two students at each office – one speaking Spanish and one speaking English. Advisor and guest speeches at the banquet are also delivered in both languages.

"We found many of our families are more comfortable with Spanish, and we noticed that while parents would attend our events, they were often lost as to what was happening and didn't understand why their child was being recognized," says Kevin Norris, the agricultural education teacher and co-advisor for AAEC South Mountain FFA. "It became our goal to ensure every parent and alumni and supporter had a seat at the table and felt included."

To learn more about National Hispanic Heritage Month, visit **HispanicHeritageMonth.org**.

– By Jessica Mozo

NAME: _____

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

Appendix 2: National Hispanic Heritage Month

Created: Fall 2019 by the National FFA Organization
Part 1

DIRECTIONS:

Read the "Here's to Our Latino Members" article in the Fall 2019 issue of *FFA New Horizons* and complete the following activities. Using the internet, research famous Latinos in history to unscramble each name. Then cut out and glue the picture and name to a blank piece of paper. Next, identify the historical date range and accomplishment of each individual and glue them next to the picture. There will be one historical date range and one accomplishment for each picture.

What percent of FFA membership is Hispanic?

_____

What is the date range for National Hispanic Heritage Month?

_____

SLORDEO THAURE

___ ___ ___ ___ ___ ___ ___

___ ___ ___ ___ ___ ___

OMRIA AOILNM

___ ___ ___ ___ ___

___ ___ ___ ___ ___ ___

LLENE OOHCA

___ ___ ___ ___ ___

___ ___ ___ ___ ___ ___

DONARRBE SSYAOHU

___ ___ ___ ___ ___ ___ ___ ___

___ ___ ___ ___ ___ ___ ___

Why is it important to gain an understanding about other cultures and heritages?

SCLROA YLINFA

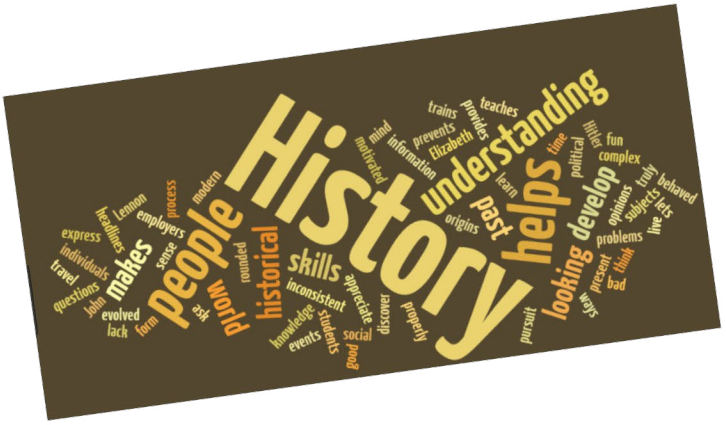
___ ___ ___ ___ ___ ___

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

Accomplishment
Studied the pituitary gland and blood sugar, which led to better understanding and management for diabetes
First Latino to travel to space Studies informational processing
First scientist to begin making the connection between mosquitos and yellow fever
Labor activist who helped to create the United Farm Workers of America
Studied and brought attention to chlorofluorocarbons (CFCs) and the damage they can cause to the environment and ozone

Dates in History
1833–1915
1887–1971
1930–present
1943–present
1958–present



NAME: _____

Part 2

DIRECTIONS:

Select a country that has Hispanic roots and Spanish as the official language (Ex. Spain, Argentina, etc.) that does not share a border with the United States. Complete the following.

(1) Select a country: _____

(2) Draw and color the flag of the country you selected.

(3) Locate and label the country and capital on the map.

(4) What is the top export for the country? _____

(5) What is the top agricultural commodity? _____

(6) What type of government structure do they have? (Ex. monarchy) _____

(7) In three to five sentences, describe why a person would want to visit this country.


CAREER Success

CHANGING LIVES THROUGH AG ED

HERE ARE FOUR INSPIRING TEACHERS WHO MAKE PRICELESS CONTRIBUTIONS TO THEIR STUDENTS, CHAPTERS AND COMMUNITIES.

ARTICLE SUMMARY

Changing Lives Through Ag Ed

Agricultural education teachers have the unique opportunity to develop leadership, personal growth and career success in students, which can have a lasting impact on students' lives. Learn what current agricultural educators have to say about their experiences.

BELL RINGER:

Create a flow chart that depicts the steps to become a teacher.

DISCUSSION QUESTIONS

1. Why would a person choose to become a teacher?
2. What steps must be taken to become a teacher?
3. What impact do teachers have?

ACTIVITY

On their own paper, have students complete the bell ringer activity. Once all students have written 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 broken up into three parts. (1) Hand out the "Educating the Future" worksheet (Appendix 3) to each student. Students will begin by reading the article "Changing Lives Through Ag Ed" in the Fall 2019 issue of FFA New Horizons. Students will then complete the "game board" to learn about the path that teachers take to enter the field of education. (2) Students will gain a better understanding of teachers by interviewing a teacher of their choice. Students will utilize the provided questions during their interviews. (3) Students will select two teachers that have had an impact on them and their lives. They will identify why that teacher had an impact and write a thank you note to each teacher.

Have students complete the exit ticket before leaving class.

FFA TIP

Have students write thank you notes to their teachers, support staff and administration during National FFA Week to thank them for their support.

SAE TIP

Inform students that preparing curriculum about agriculture and teaching about agriculture can be an SAE. There is even a National FFA Agricultural Proficiency Award area for agricultural education SAEs.

VOCABULARY

Effortless
Inspire
Priceless

EXIT TICKET

Why should we thank our teachers?

CAREER FOCUS AREAS

Any

RESOURCE HIGHLIGHT

Visit AgExplorer.FFA.org to learn about agri-cultural education as a career.

REFERENCES

AgExplorer.FFA.org

APPENDICES

Appendix 3 - Educating the Future

STANDARDS ALIGNMENT

• **AFNR Performance Element:** CS.05 • **FFA Precepts:** FFA.PL-A, FFA.PL-C, FFA.PL-E, FFA.PL-F, FFA.PG-I, FFA.PG-J, FFA.CS-M, FFA.CS-N • **Common Career Technical Core:** AG2 • **NASCTEc-State Directors (Career Clusters) :** AGC09.02 • **Common Core - Speaking and Listening:** CCSS.ELA.SL.9-10.1 • **Common Core-Math Practices:** MP5, MP6 • **AFNR Career Ready Practices:** CRP.02, CRP.04 • **P21 Skills:** COMMUNICATION, INITIATIVE AND SELF-DIRECTION, LEADERSHIP AND RESPONSIBILITY, THINK CREATIVELY

CAREER *Success*

CHANGING LIVES THROUGH AG ED

HERE ARE FOUR INSPIRING TEACHERS WHO MAKE PRICELESS CONTRIBUTIONS TO THEIR STUDENTS, CHAPTERS AND COMMUNITIES.

What is the value of a good teacher? Anyone fortunate enough to have had a quality agriculture teacher knows the answer: That person is priceless. While a teacher's commitment and dedication are showcased daily, on National Teach Ag Day, we recognize the qualities and passion that all agriculture teachers bring to the classroom.

– By Bev Flatt

***Keonté* EDMONDS,** who grew up on a beef cattle farm in Virginia, has been an agriculture teacher at Heritage High School in Wake Forest, N.C., for the past six years. While he originally pursued a future as a veterinarian, the National Teacher Ambassador for FFA participated in college organizations that led him into the classroom.

"I THINK ABOUT THE END GOAL FOR MY STUDENTS, RATHER THAN IMMEDIATE SUCCESS," EDMONDS SAYS. "WHILE ALL SUCCESS IS BENEFICIAL, AS A NONTRADITIONAL AGRICULTURE TEACHER, I STRIVE TO MAKE THE CONTENT MORE RELEVANT TO ALL STUDENTS NO MATTER WHAT CAREER THEY MAY GO INTO."

***Jillian* GORDON BRYANT** fell in love with FFA after her advisor convinced her to compete in Creed speaking. After serving as a Pennsylvania state FFA officer, she changed her major from music business to agricultural education and has never looked back.

"THROUGH AGRICULTURAL EDUCATION, I AM ABLE TO CREATE PERSONAL LEADERSHIP DEVELOPMENT AND CAREER OPPORTUNITIES THAT NO OTHER TEACHER IS ABLE TO," SAYS GORDON BRYANT, WHO SERVES AS THE FFA ADVISOR AT CLARKE CENTRAL HIGH SCHOOL IN ATHENS, GA. "NOT ONLY DO I GET TO WATCH THEM GROW, BUT ALSO MY STUDENTS PUSH ME EVERY DAY TO BE A BETTER PERSON AND TEACHER."

***Isaiah* GOVEA** says one of the best parts about being an agriculture teacher is that no two days are ever the same.

"AGRICULTURE TEACHERS HAVE A UNIQUE JOB," GOVEA SAYS. "WE GET TO SPEND FOUR YEARS WITH OUR STUDENTS, TRAVEL ACROSS THE STATE AND NATION, AND HAVE COUNTLESS IMPACTFUL MOMENTS DURING THEIR TIME AS OUR STUDENTS."

In his second year at AAEC South Mountain High School in Phoenix, Ariz., Govea's chapter has been recognized as one of the top FFA chapters in the state.

***Allison* MEADOWS** knew becoming an agriculture teacher was always the plan.

"AS A FRESHMAN IN HIGH SCHOOL, I HAD AN AGRICULTURE TEACHER WHO MENTIONED TO ME THAT I WOULD BE A GREAT AGRICULTURE TEACHER, AND I NEVER LOOKED BACK," MEADOWS SAYS. "SHE MADE HER JOB LOOK EFFORTLESS, FUN AND A WORTHWHILE INVESTMENT TO IMPACT THE FUTURE. I DON'T EVEN THINK I HAD A BACKUP PLAN."

Nine years later, Meadows has still never looked back. She spends her days changing lives at Sherwood High School in Oregon.

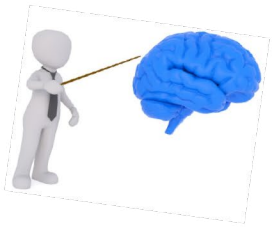
Read more about these teachers in an extended article at **FFA.org/TeacherProfiles.** To learn more about agricultural education careers, visit **AgExplorer.com and NAAE.org/teachag.**

Photography: Courtesy of Keonté Edmonds, Jillian Gordon Bryant, Isaiah Govea and Allison Meadows

NAME: _____

Aligned to the following standards:
CS.05; FFA.PL-A; FFA.PL-C; FFA.PL-E; FFA.PL-F; FFA.PG-I; FFA.PG-J; FFA.CS-M; FFA.CS-N; AG5; AGC09.02; CCSS.ELA.SL.9-10.1; MP5; MP6; CRP.02; CRP.04

Appendix 3: Educating the Future



Created: Fall 2019 by the National FFA Organization
Part 1

DIRECTIONS:
Read the article "Changing Lives Through Ag Ed" in the Fall 2019 issue of *FFA New Horizons* and complete the following activities.

What is the value of a good teacher?

What role do teachers play in society?

What are the qualities of a good teacher?

Go to AgExplorer and review the agriculture teacher career profile.

Identify 3 colleges or universities you could attend to become an agricultural educator.

1. _____
2. _____
3. _____

What other types of activities should you be involved with in high school to help prepare you for a career in agricultural education?

What courses should you take in high school to prepare you for a career in agricultural education?

Select a different type of teacher to review and record it here (Example: Biology).

_____

What types of internships or jobs during college would be helpful?

What courses should you take in high school to prepare you for a career as the teacher you selected?

What is the purpose of student teaching?

What should you be involved with in college to prepare you?

Identify 3 colleges or universities you could attend to become the teacher you selected.

1. _____
2. _____
3. _____

What other types of activities should you be involved with in high school to help prepare you for a career as the teacher you selected?

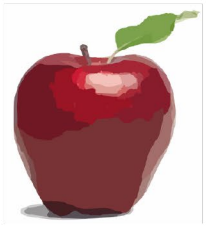
NAME: _____

Aligned to the following standards:
CS.05; FFA.PL-A; FFA.PL-C; FFA.PL-E; FFA.PL-F; FFA.PG-I; FFA.PG-J; FFA.CS-M; FFA.CS-N; AG5; AGC09.02; CCS.ELA.SL.9-10.1; MP5; MP6; CRP.02; CRP.04

Part 2

DIRECTIONS:

To gain an in-depth understanding of the path a teacher went through for their teaching position and what they truly do on a daily basis, interview a teacher at your school using the following questions.



1. Why did you choose to become a teacher?
2. Why did you choose the content area and/or grade level you currently teach?
3. What steps did you have to take to become a teacher?
4. What does a typical day look like for you as a teacher?
5. What is the most challenging part of your job?

Based on the responses you received, what three conclusions can you draw about teaching as a career?

1.
2.
3.

NAME: _____

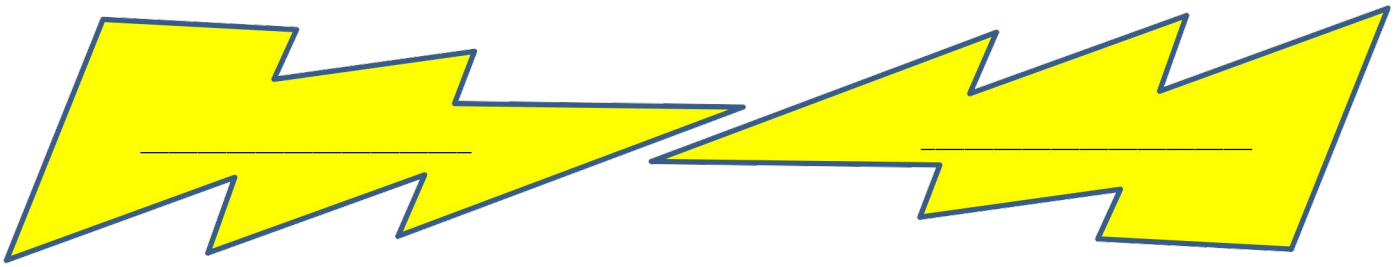
Aligned to the following standards:
CS.05; FFA.PL-A; FFA.PL-C; FFA.PL-E; FFA.PL-F; FFA.PG-I; FFA.PG-J; FFA.CS-M; FFA.CS-N; AG5; AGC09.02; CCS.ELA.SL.9-10.1; MP5; MP6; CRP.02; CRP.04

Part 3

DIRECTIONS:

It is clear that becoming a teacher of any kind takes time and dedication. We know teachers play a large role in our lives and are a vital component to any school and community.

(1) Identify two teachers that have had an impact on you.



Why did you select this teacher?

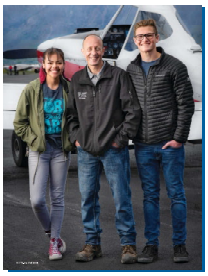
Why did you select this teacher?

Saying "thank you" is one of the most meaningful actions you can do for a teacher. Develop a 3- to 5-sentence thank you note that you could give to each teacher.

NAME: _____

DIRECTIONS:

Using the template below, rewrite your thank you note to each teacher in ink. Cut out and fold the thank you note. Write "Thank You" on the front of the card and decorate the front. Deliver the card to the teachers you have selected.



ARTICLE SUMMARY

The Sky's the Limit

Box Elder FFA members in Utah have a unique opportunity to learn about aviation. They have access to aviation classes and learn about the many ways aviation technology impacts the agriculture industry.

BELL RINGER:

What are some ways that drones/aviation are utilized within the agriculture industry?

DISCUSSION QUESTIONS

1. What impact do drones/aviation have on the agriculture industry?
2. What other industries/careers utilize drones?
3. What impact do drones have on other industries?
4. What careers or industries are related to or utilize drones besides agriculture?

ACTIVITY

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

Each student needs a copy of the "The Sky's the Limit" worksheet (Appendix 4). Students should read the article "The Sky's the Limit." After reading the article, have students complete the worksheet. The worksheet is divided into three parts: (1) students will answer questions about the article, (2) students will research the career aerial applicator/agricultural pilot on AgExplorer, and (3) students will find an article on how drones are utilized in their primary (or secondary) field of interest and summarize the article in their own words.

Have students complete the exit ticket before leaving class.

FFA TIP

Invite a local farmer or agriculturist to demonstrate flying a drone and discuss the impact that using the drone has on their farming or agriculture operation.

SAE TIP

Don't forget about careers or opportunities developing the software or sensor technology to equip planes and drones for agricultural tasks or to help agriculture producers receive and interpret data. Phone app to alert a producer about a pest infestation detected by your friendly neighborhood drone, anyone?

VOCABULARY

Drone
Aviation
Flight simulator
Aerodynamics
Flight physiology
Aerial
Multispectral

EXIT TICKET

1) What is one unique fact you learned from today's lesson?

2) How can you apply information learned in your SAE (or future SAE) to your future career?

CAREER FOCUS AREAS

Power, Structural and Technical Systems

REFERENCES

AgExplorer.FFA.org

APPENDICES

Appendix 4 - The Sky's the Limit

STANDARDS ALIGNMENT

• **FFA Precept:** FFA.PL-A, FFA.PL-C, FFA.PL-E, FFA.PG-J, FFA.CS-M, FFA.CS-N, FFA.CS-O • **Common Core-Reading: Information Text:** CCSS.ELA.RI.9.10.2, CCSS.ELA.RI.9-10.4 • **Common Core - Writing:** CCSS.ELA-LITERACY.W.9-10.2 • **Common Core - Speaking and Listening:** CCSS.ELA-LITERACY.SL.9-10.4, CCSS.ELA-LITERACY.W.9-10.4 • **Common Core – Literacy in Science & Technical Subjects: Writing:** CCSS.ELA-LITERACY.WHST.9.10.4 • **Common Core – Math Practices:** MP2, MP6 • **AFNR CAREER READY PRACTICES:** CRP.02, CRP.04 • **P21 SKILLS:** COMMUNICATION, CRITICAL THINKING AND PROBLEM SOLVING, GLOBAL AWARENESS, INITIATIVE AND SELF-DIRECTION, LEADERSHIP AND RESPONSIBILITY, THINK CREATIVELY


BOX ELDER
FFA
ADVISOR

THE SKY'S THE LIMIT

BOX ELDER FFA MEMBERS IN UTAH GAIN THE POWER OF FLIGHT DURING HIGH SCHOOL AVIATION COURSES.

BY JESSICA WALKER BOEHM
PHOTOGRAPHY BY JEFF NOBLE

At Box Elder High School (BEHS) in Brigham City, Utah, Box Elder FFA members have the unique opportunity to take aviation classes and learn about the many ways aviation technology applies to the industry of agriculture. As a result, several students are realizing a newfound passion for aviation while becoming more acquainted with the latest and greatest in ag technology. It's a cool combination that's sure to help them soar in the future.

"The world of technology and its place in agriculture is only getting bigger, and aviation is certainly a critical part of that," says Jason Bingham, BEHS agriculture instructor, Box Elder FFA co-advisor and a licensed pilot. "Offered in concurrent enrollment with the Utah State University (USU) College of Agriculture and Applied Sciences, and serving as introductory classes for the USU aviation technology program, our aviation courses at BEHS are helping open students' eyes to the possibilities that stand before them, including several careers they often didn't even know existed. They get hands-on experience with drones, flight simulators and other high-tech equipment, and many are flying airplanes under supervision and accumulating flight hours. Plus, they are earning college credit at very little expense and are learning skills that can help them acquire a private pilot license. This is an excellent opportunity for our students, and we're proud to offer these courses."

STUDENTS FLY HIGH

Available to juniors and seniors since the 2016-17 academic year, BEHS has two aviation courses: The Aviation Profession and Private Pilot Ground School. Both courses last one trimester. To enroll, students must have a grade point average of at least 3.0, and students are required to complete The Aviation Profession before beginning Private Pilot Ground School.

The Aviation Profession, described by Bingham as an "exploratory course," covers a wide variety of topics such as career planning and certification processes. It essentially serves as an introduction to the aviation industry. After completing the course, students earn one USU credit and half a BEHS career and technical education (CTE) credit.

"The Aviation Profession is designed to expose students to as many careers in aviation as possible," Bingham says. "We usually bring in 15 to 20 guest speakers who talk to the students about their careers in the field – everyone from Air Force and commercial pilots to mechanics, air traffic controllers and crop dusters. There are hundreds of careers in aviation, so we're really just scratching the surface."

Private Pilot Ground School, on the other hand, is more intense, according to Bingham. The course helps prepare students for flight training, focusing on principles of flight, and aircraft and engine operation. Students learn about topics such as aerodynamics, airport systems, air traffic control procedures, air navigation and flight physiology – basically everything they might need to know to pass the Federal Aviation Administration (FAA) Private Pilot-Airplane test.

Members Jenny Benitez-Raya (left) and Alec Hendricks (right) participated in the Box Elder High School aviation program, taught by Jason Bingham (center).

When students complete the course, they walk away with five USU credits and one BEHS CTE credit.

"Private Pilot Ground School is specifically for students who are interested in becoming pilots, and they receive some simulated flight instruction," Bingham says. In this class, they also get to fly the school's unmanned aerial vehicles – six small drones and four large drones, some of which are used for crop surveying and imagery. "Students have opportunities to fly over our school's orchard and alfalfa field and use the sprayer drone [Agras MG-1S] on our athletic fields and some local farms. Many farmers use drones to apply things like pesticides, herbicides and liquid fertilizers. There's no denying that drones are becoming an increasingly important part of agriculture and farming, so any student interested in working in the ag industry can benefit greatly from taking this course."

Another perk: During the summertime, BEHS aviation students and those in the school's summer agricultural program use drones to practice aerial mapping on nearby farms.

"We're hoping to share the images and plant health data we glean with the farmers who have been gracious enough to allow us to use their farms," Bingham says. "What we find might shed some light on any issues they're having with their crops, and it's an excellent way for students to get real-world experience."

CAREERS IN AVIATION

After enrolling in both The Aviation Profession and Private Pilot Ground School during his junior year, Alec Hendricks, now a former Box Elder FFA member who graduated in May, plans to earn his commercial pilot license and pursue a bachelor's degree in aviation technology at USU.

During his time at BEHS, Hendricks completed an internship with a crop duster at Brigham City Municipal Airport, which also served as his supervised agricultural experience (SAE). In the future, he is interested in putting his aviation skills to work in a career in resource and wildlife management – a profession that entails spraying invasive species, removing exotic plants, surveying animals and more, the majority of which is done using an airplane.

"I learned so much in my aviation classes, particularly Private Pilot Ground School," says Hendricks,

Top, left: Clasroom instruction includes flight simulation. Top, right: Bingham explains flight instruments to his students. Bottom: Benitez-Raya and Bingham review before a flight. Opposite: Benitez-Raya, Bingham and Williams with drones, which are also part of the program.

"I'VE DISCOVERED THAT AVIATION IS SO MUCH MORE THAN COMMERCIAL AIRLINE FLYING." – JENNY BENITEZ-RAYA

WATCH OUR VIDEO

Hover your phone's camera over this code to learn more about the Box Elder High School aviation program.

who also credits the BEHS aviation courses with introducing him to FFA. "It was a rigorous course that required a lot of hard work and study time, but now I can say that I have a strong understanding of meteorology as well as how an airplane works. How many other people my age can say that?"

Former Box Elder FFA member Jacob Williams also completed both The Aviation Profession and Private Pilot Ground School, and he plans to study aviation at Southern Utah University. At 18 years old, he's already passed the FAA Private Pilot-Airplane test and credits his aviation coursework at BEHS with helping make that dream a reality.

"Mr. Bingham and his aviation classes really helped prepare me for the FAA Private Pilot-Airplane test – one of the toughest written exams I've ever taken," Williams says. "We had small class sizes, so I got a good amount of one-on-one time with him and was able to ask questions about anything that came up. I don't think I could have passed that test without all of his instruction and assistance."

Jenny Benitez-Raya, one of only two female students to take and finish BEHS aviation courses to date, also plans to become a commercial pilot after attending USU, but she says she's open to other career paths in aviation – especially now that she knows how many are available to her.

"In these classes, I learned so much about aviation technology and how we can apply it to industries like agriculture," says Benitez-Raya, who was also a member of the Box Elder FFA and graduated in 2019. "For example, I never knew how drones could be used to help improve yields on farms. I've discovered that aviation is so much more than commercial airline flying, although that's still what I want to do, but now I know about the many other career opportunities I could pursue, as well."

In addition, Benitez-Raya says taking aviation classes at BEHS has helped her grow into a stronger leader, giving her tools that will likely prove useful no matter where her career path leads.

"When I'm flying an airplane or a drone, there's a lot of pressure, and I've learned how to manage that stress," she says. "I've also learned to take charge when I need to, and I know that's going to be valuable going forward." •

Learn more about career opportunities in aviation at **AgExplorer.com.**

AVIATION CAREERS

Point your phone's camera at this icon to visit AgExplorer.com and learn more about careers in the aviation industry.

DRONE ON

Unmanned aerial vehicles, more commonly known as drones, are growing more and more important to the industry of agriculture. In fact, a recent study shows the agricultural drone market is expected to grow by more than 38 percent by 2025, and it's easy to see why.

Many of today's drones employ state-of-the-art technology that gives farmers the ability to monitor their crops from the sky and take a closer look at what's happening beneath the surface, far beyond what the naked eye can see. This eliminates the guesswork and helps farmers make better choices, typically resulting in enhanced production.

For example, some drones are equipped with multispectral cameras that provide insight into a crop's growth, while others can retrieve data related to soil characteristics like temperature, moisture, slope and elevation.

Drones can also gather data related to a crop's fertility and give farmers valuable information that helps them determine how much fertilizer the crop needs in order to grow optimally – and some drones can apply that fertilizer, too, along with pesticides and herbicides.

Finally, drones are also useful in livestock monitoring and give farmers the luxury of quickly examining their herds while also keeping an eye out for predators.

Airplane: adekvat, Getty Images

NAME: _____

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

Appendix 4: The Sky's the Limit

Created: Fall 2019 by the National FFA Organization

Part 1

DIRECTIONS:

Read the article "The Sky's the Limit" in the Fall 2019 issue of *FFA New Horizons* magazine and answer the questions below.

1. Since the _____ academic year, students at Box Elder High School have been able to take aviation courses.

   A. 2015-16
   B. 2016-17
   C. 2018-19
   D. None of the above

2. How many aviation courses have been available?

   A. 3
   B. 2
   C. 4
   D. None of the above

3. What does student Jenny Benitez Raya say about the aviation program?

After reading this article, what did you learn that you could apply in your own SAE (or future SAE)?

4. What are drones, and how do they benefit agriculture?

NAME: _____

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

Part 2

DIRECTIONS:

Visit AgExplorer.com to learn about an aerial applicator/agricultural pilot career and answer the questions below.

Aerial Applicator/Agricultural Pilot Career

1. Identify four of the responsibilities of this career.

2. What high school courses are recommended?

3. What further education/training is required?

4. What is the job outlook for this career?

5. What is the salary?

What stands out to you about this career?

NAME: _____

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

Part 3

DIRECTIONS:

Find an article about how drones are utilized in a career you are interested in (or a related career) and respond below. For example, this article, https://www.forbes.com/sites/ajagrawal/2017/06/10/5-ways-marketers-can-take-advantage-of-drone-technology/#1d6599e658cc, identifies how drones are utilized in marketing.

1. In the boxes below, summarize each section/paragraph of the article in your own words. *If additional sections are needed to respond, utilize the sections on the next page.*

What is one question you have after reading the article?

Summarize what you learned in one word:

NAME: _____

ARTICLE SUMMARY

Talking Points: Organic vs. Conventional Food

Do you get asked or even wonder yourself about the difference in organic versus conventional foods? Read the talking points presented in this article to learn more about these foods and how to answer questions that you may get on this topic.

BELL RINGER:

What do you think is a main difference in organic and conventional (non-organic) foods?

DISCUSSION QUESTIONS

1. What steps does it take for a food to be considered organic?
2. Are there health benefits to organic food? Explain your answer.
3. Do you think organic foods are more expensive? Explain your answer.

ACTIVITY

On their own paper, have students complete the bell ringer activity. 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.

Each student needs a copy of the "Organic vs. Conventional Food" worksheet (Appendix 5). Students should read the article "Talking Points: Organic vs. Conventional Food." After reading the article, have students complete the worksheet. The worksheet is divided into three parts: (1) students will identify the similarities and differences in an organic and conventional food label, (2) students will create an informational paper slideshow on organic and conventional foods, and (3) students will visit their local grocery store and will map out the location of organic and conventional foods and explain why they think those foods are located where they are in the grocery store.

Have students complete the exit ticket before leaving class.

FFA TIP

Invite the local grocery manager to speak to your class/FFA chapter about organic versus conventional foods. Have them discuss which product (organic or conventional) sells the most, prices of each, etc.

SAE TIP

All production types, organic, conventional and other are eligible for SAE-based awards and degrees. Each year watch for SAE Grants sponsored by organic organizations that are intended specifically to help start organic food SAEs.

VOCABULARY

Synthetic
GMO
Pesticide
Compost
Organic
Antibiotics
Hormones
Conventional
Contamination

EXIT TICKET

1. What are three things you learned from today's lesson?
2. How would you summarize what you learned and explain it to an elementary student?
3. What is one question you still have about today's lesson?

CAREER FOCUS AREA

Food Products and Processing Systems

RELATED ARTICLES

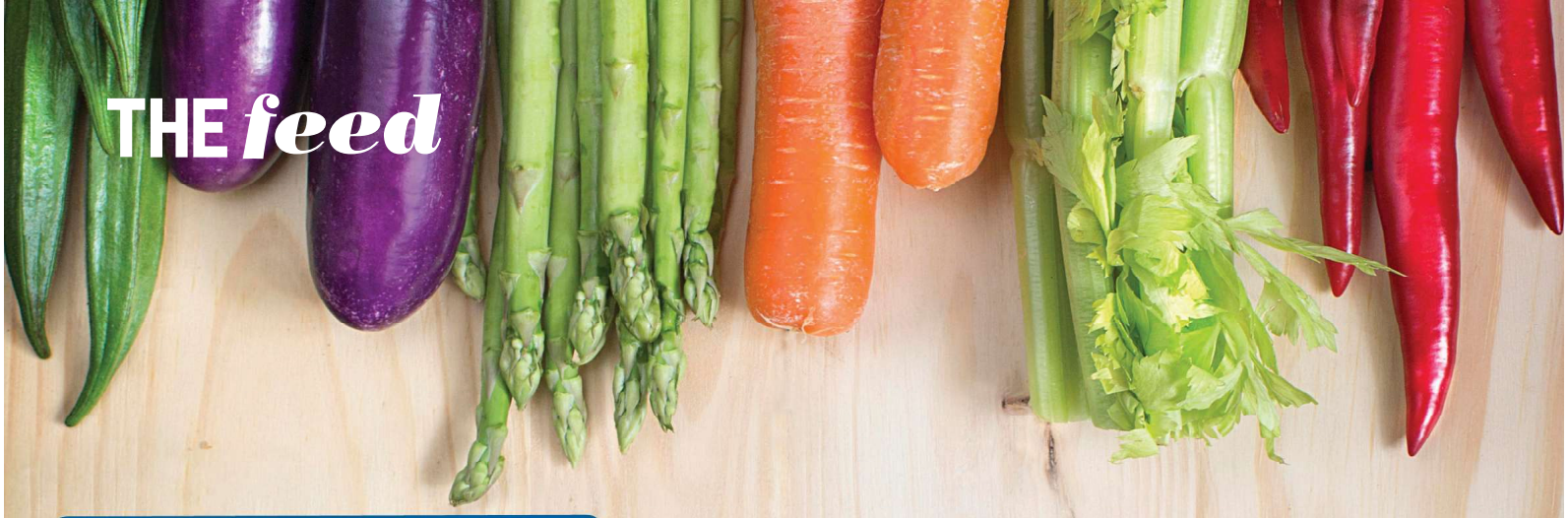
Organic 101: What the USDA Organic Label Means,https://www.usda.gov/media/blog/2012/03/22/organic-101-what-usda-organic-label-means

APPENDICES

Appendix 5 - Organic vs. Conventional Food

STANDARDS ALIGNMENT

• **FFA Precept:** FFA.PL-A, FFA.PL-C, FFA.PL-E, FFA.PG-J, FFA.CS-M, FFA.CS-N, FFA.CS-O • **Common Core-Reading: Information Text:** CCSS.ELA.RI.9.10.2, CCSS.ELA.RI.9-10.4 • **Common Core-Writing:** CCSS.ELA-LITERACY.W.9-10.2 • **Common Core-Speaking and Listening:** CCSS.ELA-LITERACY.SL.9-10.4, CCSS.ELA-LITERACY.W.9-10.4 • **Common Core – Literacy in Science & Technical Subjects: Writing:** CCSS.ELA-Literacy.WHST.9.10.4 • **Common Core-Math Practices:** MP2, MP6 • **AFNR Career Ready Practices:** CRP.02, CRP.04 • **P21 Skills:** COMMUNICATION, CRITICAL THINKING AND PROBLEM SOLVING, GLOBAL AWARENESS, INITIATIVE AND SELF-DIRECTION, LEADERSHIP AND RESPONSIBILITY, THINKING CREATIVELY



Talking Points:

ORGANIC vs. CONVENTIONAL FOOD

WHAT MAKES ORGANIC CROPS DIFFERENT FROM CONVENTIONAL CROPS? IS ONE WORTH MORE OR BETTER FOR YOU? HERE'S HELP IN ADDRESSING THESE AND OTHER QUESTIONS YOU MAY GET ABOUT ORGANIC FOODS.

Q: HOW ARE ORGANIC CROPS DIFFERENT FROM NONORGANIC (CONVENTIONAL)?

A: USDA-certified organic crops cannot use synthetic fertilizers, pesticides or genetically modified organisms (GMOs). Typically, livestock manure and compost are used to improve organic soil quality. Both organic and nonorganic production can utilize crop rotation, cover crops, burning, tillage and mulch for nonchemical weed control.

Q: CAN ANIMAL PRODUCTS BE LABELED ORGANIC?

A: Yes, if they meet USDA regulations, including outdoor access by the animals to certified-organic fields, 100 percent organic feed and no antibiotics or growth hormones.

Q: DO ORGANIC AND NATURAL MEAN THE SAME THING?

A: No. USDA classifies *natural* as a product that contains no artificial ingredient or added color and is only minimally processed.

Q: IS ORGANIC FOOD MORE NUTRITIOUS OR SAFER?

A: This answer is not clear-cut. According to health experts at the Mayo Clinic, there is growing evidence of potential health benefits of organic foods, including:

- Small to moderate increases in nutrients such as flavonoids.
- Lower detectable levels of pesticide residue. Safety regulations also keep residue levels low in conventional products, making it difficult to detect differences in health outcomes.
- Higher omega-3 fatty acids (the heart-healthy ones) in organic animal products. This could be due to more grass in the animals' diets.

Meanwhile, the overall risk of bacterial contamination of organic foods is the same as conventional, according to Mayo Clinic experts.

Q: WHAT ABOUT THE COST COMPARISON?

A: Organic foods typically cost more. Farming practices may require more hand labor, less mechanization and sometimes lower yields. Organic products are often processed and transported in smaller quantities, increasing the cost per unit.

Learn more about the future of American food production, including organic and conventional farming practices, with the FFA #SpeakAg Dialogue videos on **FFA.org**.

– By Gene Johnston

Photography: twomeows, Getty Images

NAME: _____

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

Appendix 5: Organic vs. Conventional Food

Created: Fall 2019 by the National FFA Organization

Part 1

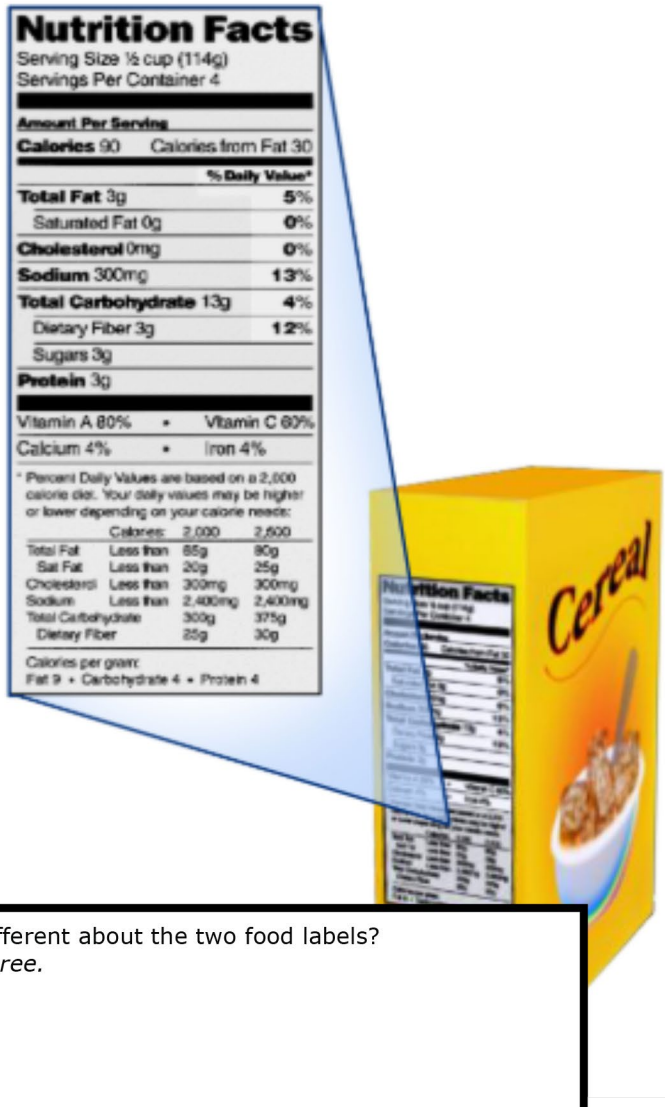
DIRECTIONS:

Read the article "Talking Points: Organic vs. Conventional Food" in the Fall 2019 issue of *FFA New Horizons* magazine and answer the following questions.

1. Review the food labels below and determine the differences and similarities in the labels.

Organic label:

Non-Organic Food Label:



What is similar about the two food labels?
Identify three.

What is different about the two food labels?
Identify three.

What is one fact that stood out to you? Explain how this information affects you as a consumer?

NAME: _____

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

Part 2

DIRECTIONS:

Watch the video (or one similar) "How to Make a Paper Slideshow," available at https://youtu.be/E5RXynA_D3I. You will create a paper-slide informational video about organic and conventional food. Videos should last between 45 and 90 seconds. Utilize the space below to script your video. (Illustrations will go in the boxes and your narration on the lines.)
Examples of suggested topics: nutritional information, how organic and conventional foods are grown, similarities and differences, etc.

Title:

Slide One:

Narration:

_____

_____

_____

_____

_____

Slide Two:

Narration:

_____

_____

_____

_____

_____

NAME: _____

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

Slide Three:

Narration:

_____

_____

_____

_____

_____

Slide Four:

Narration:

_____

_____

_____

_____

_____

Slide Five:

Narration:

_____

_____

_____

_____

_____

NAME: _____

Paper Slide Video Rubric

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

Area	4 Points	3 Points	2 Points	1 Point
Content	All content is accurate. There are no factual errors.	Most of the content is accurate, but there is one piece of information that seems inaccurate.	The content is generally accurate, but one piece of information is clearly inaccurate.	Content is confusing or contains more than one factual error.
Clarity and Neatness	The paper slide is easy to read, and all elements are clearly written, labeled and drawn. Creativity was used.	The paper slide is easy to read, and most elements are clearly written, labeled and drawn. Some creativity was used.	The paper slide is hard to read with rough drawings, labels and color. Little creativity was used.	The paper slide is hard to read, and one cannot tell what goes where or what the illustrations represent. No creativity was used.
Narration and Preparedness	The paper slideshow is clearly rehearsed and narrated with no mistakes. Student spoke slowly and clear.	One mistake is heard in the paper-slide video.	Two mistakes are heard in the paper-slide video.	Three or more mistakes are heard in the paper-slide video. Student spoke very fast and was unclear.
Time	Student stayed in the 45- to 90-second time frame.			Student was either under or over the allotted time frame.

Comments:

_____

_____

_____

_____

_____

_____

_____

_____

NAME: _____

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

Part 3

DIRECTIONS:

Visit your local grocery store, and use the space below to map out where the organic and conventional food items are located. Be sure to respond to the question below as well.

Why do you think the organic food is found where it is in the grocery store?

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

KEY — Appendix 1: Let's Learn Sign Language!

Created: Fall 2019 by the National FFA Organization

Part 1

DIRECTIONS:

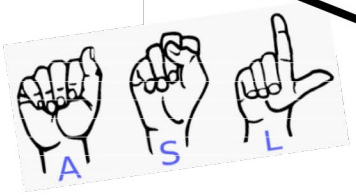
Read the article "Sign of the Times" in the Fall 2019 issue of *FFA New Horizons* and answer the questions below.

1. What year was the North Carolina School for the Deaf established?
   a. 1994
   b. 1894
   c. 1899
   d. None of the above

2. Explain why the North Carolina School for the Deaf launched an agricultural education program and why they chartered an FFA chapter.

As part of an effort to ramp up its career and technical education program, the North Carolina School for the Deaf launched an agricultural education program for students in middle and high schools. They also chartered the first FFA chapter in school history, which became the third school for the deaf in the nation to have an FFA chapter. They chartered an FFA chapter because FFA is about leadership, hands-on learning and STEM education. They wanted to have a complete ag ed program, and FFA needed to be part of it.

What is one word that describes what you learned from this article?



3. What did the FFA chapter accomplish in its first season?

The 106-acre grounds sprouted a new garden and a high-tunnel greenhouse that produced fruits and vegetables such as broccoli, cauliflower, potatoes, sweet potatoes, cabbage and blueberries.

4. How many FFA members did the North Carolina School for the Deaf start with? 10 How has their chapter membership grown? The chapter has almost doubled in size.

5. After you have identified one word that describes what you have learned (in the box above), draw your word using sign language images in the space below. (You might need to complete Part 2 of this worksheet first.)

NAME: _____

Part 2

DIRECTIONS:

Utilize the following websites, or similar sites, to complete the questions and activities below:
https://lifeprint.com/asl101/topics/wallpaper1.htm and https://www.handspeak.com/.

1. Click on the link above to learn how to spell your name in sign language.

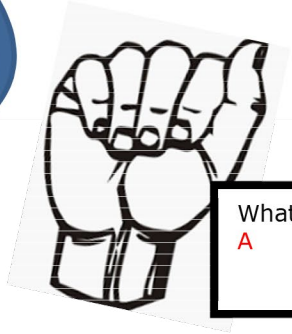
Step 1: Learn how to sign your name.

What is this sign?
S

Step 2: Learn how to sign the first line of your school's fight song, the first line of your favorite college team's fight song or the first line of your favorite song.

Step 3: With a partner, create a short video (at least 60 seconds in length). The video should include the following:

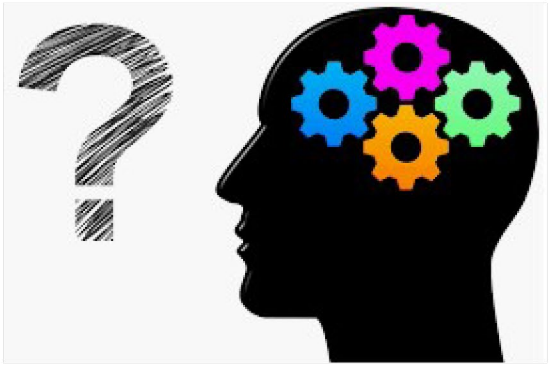
-you signing your name
-your partner signing his or her name
- you signing the first line of your chosen song
-your partner signing the first line of his or her chosen song



What is this sign?
A

2. How can you and your classmates talk and interact with others from different backgrounds and cultures?

Answers will vary.



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

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 2: National Hispanic Heritage Month

Created: Fall 2019 by the National FFA Organization

DIRECTIONS:

Read the "Here's to Our Latino Members" article in the Fall 2019 issue of *FFA New Horizons* and complete the following activities. Using the internet, research famous Latinos in history to unscramble each name. Then cut out and glue the picture and name to a blank piece of paper. Next, identify the historical date range and accomplishment of each individual and glue them next to the picture. There will be one historical date range and one accomplishment for each picture.

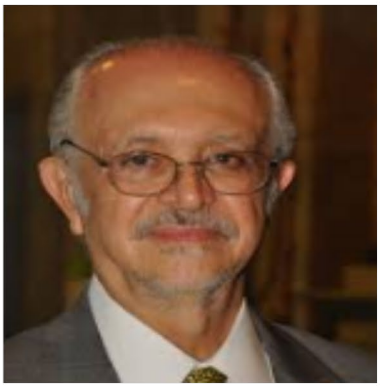
What percent of FFA membership is Hispanic?

15.45%

What is the date range for National Hispanic Heritage Month?

Sept. 15 to Oct. 15, 2019

SLORDEO THAURE
Delores Huerta
(1930–present) Labor activist who helped to create the United Farm Workers of America



OMRIA AOILNM
Mario Molina
(1943–present) Studied and brought attention to chlorofluorocarbons (CFCs) and the damage they can cause to the environment and ozone

LLENE OOHCA
Ellen Ochoa
(1958–present) First Hispanic to travel to space; studies informational processing

DONARRBE SSYAOHU
Bernardo Houssay
(1887–1971) Studied the pituitary gland and blood sugar, which led to better understanding and management for diabetes

Why is it important to gain an understanding about other cultures and heritages?
Answers will vary.

SCLROA YLINFA
Carlos Finlay
(1833–1915) First scientist to begin making the connection between mosquitos and yellow fever

NAME: _____

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

KEY — Appendix 4: The Sky's the Limit

Created: Fall 2019 by the National FFA Organization

Part 1

DIRECTIONS:

Read the article "The Sky's the Limit" in the Fall 2019 issue of *FFA New Horizons* magazine and answer the questions below.

1. Since the _____ academic year, students at Box Elder High School have been able to take aviation courses.

A. 2015-16
B. 2016-17
C. 2018-19
D. None of the above

2. How many aviation courses have been available?

A.3
B. 2
C. 4
D. None of the above

After reading this article, what did you learn that you could apply in your own SAE (or your future SAE)?

Answers can vary.

3. What does student Jenny Benitez Raya say about the aviation program?

She said she learned so much about aviation technology and how we can apply it to industries like agriculture. She never knew how drones could be used to help improve yields on farms. She discovered that aviation is so much more than commercial airline flying. She still wants to do commercial airline flying but now she knows about the many other career opportunities that she could pursue as well. The aviation classes have helped her grow into a stronger leader, giving her tools that will likely prove useful no matter where her career path leads.

4. What are drones, and how do they benefit agriculture?

Drones are unmanned aerial vehicles.

They benefit agriculture through a variety of applications such as scouting new field locations, checking crops, etc.

Answers may vary.

https://www.droneusainc.com/articles/the-benefits-of-drones-to-the-agricultural-industry

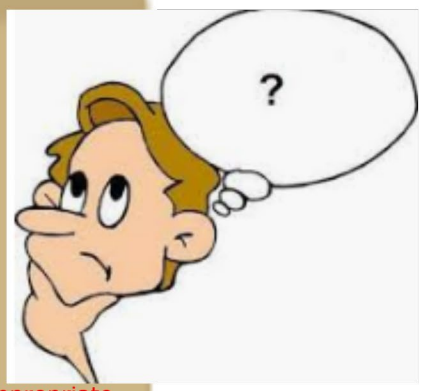
NAME: _____

Part 2

DIRECTIONS:

Visit AgExplorer.com to learn about an aerial applicator/agricultural pilot career and answer the question below.

Aerial Applicator/Agricultural Pilot Career



1. Identify four of the responsibilities of this career:

- Apply essential pesticides, fertilizer or fungicides to crops
- Assist firefighters in the containment and extinguishing of forest fires
- Mix and add chemicals to be applied in the plane
- Work to keep airplane and equipment properly maintained
- Keep track of applications and report back to grower
- Invoice growers for services performed
- Consider air speed, wind and weather to determine if conditions are appropriate for application and flying
- Mentor and help train new pilots
- Maintain certifications and licenses required for flying and chemical application
- Scout fields for problems that may be a danger to aerial application such as electrical wires or structures
- Get to know farmers and landowners in order to build clientele

2. What high school courses are recommended?

The following high school courses are recommended: agricultural education, chemistry, business and mathematics.

3. What further education/training is required?

You have to have a commercial pilot license through the Federal Aviation Administration (FAA) with the required flying hours and medical examinations. You must also attend agricultural pilot training to pursue a career as an agricultural pilot.

4. What is the job outlook for this career?

Excellent

5. What is the salary?

$79,000

What stands out to you about this career?

Answers will vary.

NAME: _____

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

KEY — Appendix 5: Organic vs. Conventional Food

Created: Fall 2019 by the National FFA Organization

Part 1

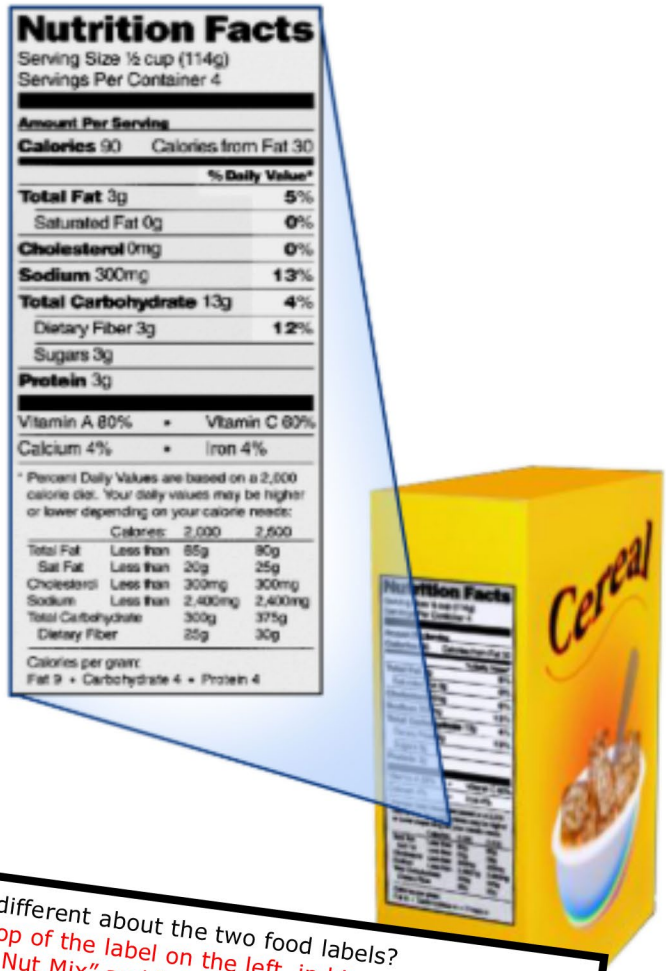
DIRECTIONS:

Read the article "Talking Points: Organic vs. Conventional Food" in the Fall 2019 issue of *FFA New Horizons* magazine and answer the following questions.

1. Review the food labels below and determine the differences and similarities in the labels.

Organic label:

Non-Organic Food Label:



What is similar about the two food labels?
-Both include the nutrition facts labels.
-Both are somewhat similar in size.

What is different about the two food labels?
-At the top of the label on the left, in big print, it says "Organic Nut Mix" and "Certified Organic by OEFFA."
-There appears to be a detailed list of ingredients on the organic label.

What is one fact that stood out to you? Explain how this information affects you as a consumer?
Answers will vary.