



NATIONAL
FFA ORGANIZATION

Bell Ringers for the Agricultural Science Classroom

Created: 11/2019 by the National FFA Organization

This document serves as a resource to agricultural educators and advisors to incorporate quick ways in which to engage students at the beginning of each scheduled time block (i.e. class, FFA meetings, etc.).

RESOURCES

All content has been divided into the following categories:

- [Agribusiness Systems Career Focus Area](#)
- [Animal System Career Focus Area](#)
- [Careers and Supervised Agricultural Experience \(SAE\) programs](#)
- [Food Products and Processing Systems Career Focus Area](#)
- [Inspirational Quotes](#)
- [Leadership and FFA](#)
- [Natural Resource and Environmental Services Systems Career Focus Areas](#)
- [Plant Systems Career Focus Area](#)
- [Power, Structural and Technical Systems Career Focus Area](#)
- [Worksheet for Implementation](#)

REFERENCES

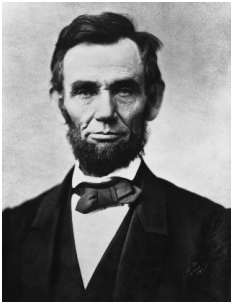
All content has been derived from the following bulleted resources:

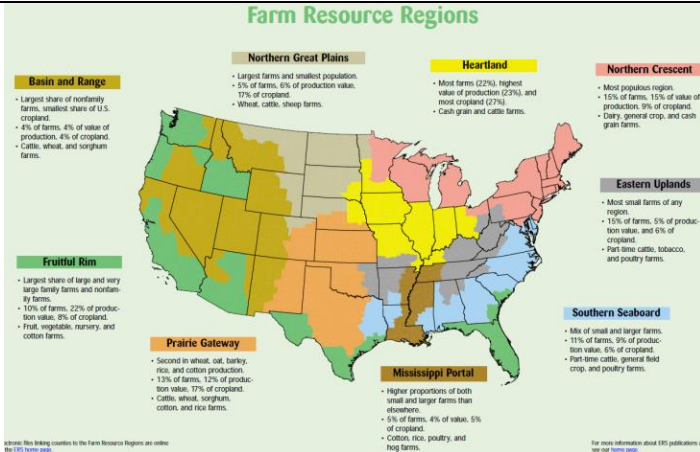
- 365tests.com
- Acropolis Leadership Academy
- AgExplorer.ffa.org
- Agriculture in Education
- American Society of Agricultural and Biological Engineers
- American Veterinary Medical Association (AVMA)
- Bayer
- Centers for Disease Control (CDC)
- ChooseMyPlate.gov
- Coalition for Safe and Affordable Food
- College Board
- Council for Biotechnology Information
- Crop Life America
- Csap.org
- CSX Transportation
- Elanco
- Environmental Protection Agency (EPA)
- Feeding America
- FFA New Horizons Magazine
- FFA Student Handbook
- Folji.com
- Food and Agricultural Organizations of the United Nations
- Food and Farm Facts Magazine
- Food Safety Inspection Service (FSIS)
- Goconstruct.org
- Icebreakerideas.com
- Inc.com
- Institute of Food Technologists (IFT)

- John Deere
- Merck Animal Health
- National Agriculture in the Classroom
- National Association of Wheat Growers
- National Cattleman's Beef Association
- National Center for Emerging and Zoonotic Diseases (NCEZID)
- National Corn Growers Association
- National Geographic
- National Geographic Kids
- National Farmers Union
- National FFA Manual
- National FFA Organization
- National Turkey Federation
- Newsela
- *New York Times*
- North American Meat Institute
- Psych Central
- Purdue University, Department of Animal Sciences
- RFDTV
- SAE Idea Cards
- Science News for Students
- Scientific Psychic
- Sixkindsofbest.com
- Smithfield Farms
- Sorted
- Ted-Ed
- The Alliance to End Hunger Playbook
- The American Presidency Project
- The National Chicken Council
- The National Dairy Council
- The World Food Prize
- United States Department of Agriculture (USDA)
- U.S. Forest Service
- U. S. Grains Council
- USAgov
- Veterinarians on Call
- Writeabout.com
- Zoetis

Bell Ringers for the Agricultural Science Classroom

AGRIBUSINESS CAREER FOCUS AREA

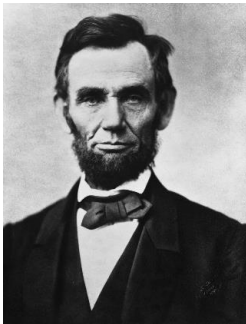
	Question	3-Component Model Category
1	A farmer and his hired help were carrying grain to the barn. The farmer carried one sack of grain and the hired help carried two sacks. Who carried the heavier load and why? — The farmer. His hired help only carried two sacks while the farmer carried one sack filled with grain.	Classroom, SAE
2	Go to AgExplorer.com and complete the Career Finder.	Classroom, SAE, FFA
3	Video journaling — Watch a short video clip, reflect in writing and share out. (https://www.youtube.com/watch?v=sc4HxPxNrZ0)	Classroom, SAE, FFA
4	How many people does one U.S. farm feed? a. 56 people b. 165 people c. 202 people d. 233 people	Classroom
5	Which state has the most farms? a. Missouri b. Iowa c. Oklahoma d. Texas	Classroom
6	True or False — The majority of farms in the U.S. are owned by corporations. Explain your answer in one to two sentences.	Classroom
7	Which U.S. president (pictured below) was responsible for establishing the United States Department of Agriculture (USDA)? a. Abraham Lincoln b. Thomas Jefferson c. Alexander Hamilton d. Woodrow Wilson 	Classroom
8	The farm value of 100lbs of milk (~12 gallons) is \$18.90. How much of that price goes back to the farmer? a. \$5.07 b. \$7.21 c. \$12.10 d. \$17.02	Classroom, FFA
9	Identify five careers you could have in the Agribusiness Systems Career Focus Area. – Accountant, Communications Specialist, Grain Elevator Manager, Event Manager, etc.	Classroom, FFA, SAE
10	Identify five colleges/universities that offer agriculture-related degrees. - Purdue University, University of Illinois, Kansas State, Texas Tech, University of Maryland, etc.	Classroom, FFA, SAE

11	What career area is the largest employer in the world? - Medicine - Manufacturing - Education Agriculture	Classroom, FFA, SAE
12	Draw a picture of what the word <i>agriculture</i> means to you. You have five minutes to complete the drawing.	Classroom, FFA, SAE
13	When Olaf purchased a farm in 2016, he decided to refinance the existing farm mortgage. The accrued interest from the existing mortgage was added to the new mortgage. The last payment on the existing mortgage was made on March 31, 2016. Interest on the mortgage accrues at the rate of \$88.28 per day. What was the amount of accrued interest added to the new mortgage on November 1, 2016? Calculate to the nearest cent. $(30+31+30+31+31+30+31) \times \\$88.28 = \\$18,891.92$	Classroom, FFA, SAE
14	When determining the effect of growing more acres of a crop in an enterprise budget, the value least likely to change would be - Total average costs. - Total operating costs. Operating costs per acre. - Total variable costs.	Classroom, FFA, SAE
15	A whole farm schedule of expected returns and expenses is a - Balance sheet. - Partial budget. - Depreciation schedule. Budget.	Classroom, FFA, SAE
16	Which of the following contributes the largest amount of expense to the total farm overhead expenses? - Interest on long-term debt - Building depreciation - Utilities Hired labor	Classroom, FFA, SAE
17	 (Image found at https://www.ers.usda.gov/webdocs/publications/42298/32489_aib-760_002.pdf?v=42487) What region do we live in, and what are some of our greatest commodities according to the map from the USDA?	Classroom

18	Utilizing the State Agricultural Facts map (https://www.agclassroom.org/teacher/ag_facts.cfm) identify and write down five interesting facts that you did not know about your state.	Classroom
19	Write a tweet about how agriculture impacted you this weekend.	Classroom
20	Watch the following video: https://youtu.be/XVbOOMCjktA . 1. Why is growing plants in space important? 2. Why is figuring out how to grow plants in space challenging?	Classroom, FFA, SAE
21	Watch the following video: https://youtu.be/0PU6BkSMUoA . 1. What careers exist in agriculture that are not production based? 2. What role do America's farmers play in our economy?	Classroom
22	Find an impactful member of the agricultural community from history. Create a tweet about the impact that person has had in the agriculture industry.	Classroom, FFA, SAE
23	Read the following article and respond with six emojis that represent your thoughts/feelings about the material: https://newsela.com/read/elem-san-francisco-hotel-rooftop-bees/id/41820 .	Classroom, FFA, SAE
24	Write a two-minute elevator speech about what agriculture is/means. This elevator speech should be written for a student at the elementary level that has never taken an agriculture class.	Classroom, FFA, SAE
25	 (Image can be found at: https://nfu.org/) Where does all the money go when you purchase a food product at the store?	Classroom, FFA, SAE
26	Using this website, https://www.ffanewhorizons.org/category/ag-101/career-pathways/ , select an agricultural career pathway and describe five skills necessary to be successful in that area of agriculture.	Classroom, FFA, SAE
27	Select a career focus area of interest to you (use AgExplorer.ffa.org), and create a tweet about that the focus area.	Classroom, FFA, SAE
28	Identify as many agriculture courses that are offered in your school as you can.	Classroom

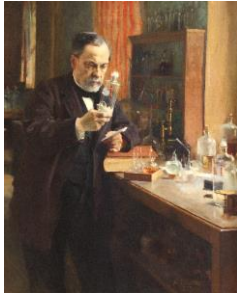
29	Why and how should you advocate for hunger? Your response should be two to three sentences. (Image can be found at http://alliancetoendhunger.org/aeh-playbook/.)  The infographic is divided into three main sections. The top section, 'WHY ADVOCATE?', features a large thermometer graphic showing the 'COST OF HUNGER IN U.S.' with a '19.2 BILLION' mark. It lists 'FOOD INSECURE' and 'ALL AMERICANS' with icons of people. The middle section, 'AN END TO HUNGER', shows a path leading to 'POLICY MAKERS' and 'POLICY' with icons of a person running and a building. The bottom section, 'ADVOCACY ACTIVITIES FOR', lists three categories: 'ADVOCACY ACTIVITIES FOR CONSUMERS', 'ADVOCACY ACTIVITIES FOR FARM REVENUE', and 'ADVOCACY ACTIVITIES FOR RURAL ECONOMIC DEVELOPMENT'. It includes logos for 'ConAgra Foods' and 'FFA'.	Classroom, FFA, SAE
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ANIMAL SYSTEMS CAREER FOCUS AREA

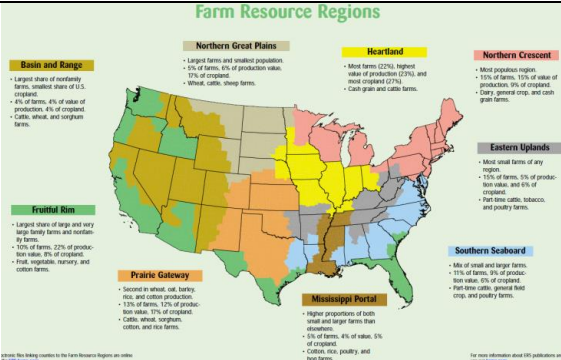
	Question	3-Component Model Category
1	What kind of cheese is made backward? -EDAM cheese (made spelled backward)	Classroom
2	There are six eggs in the basket. Six people each take one of the eggs. How can it be that one egg is left in the basket? -The last person took the basket with the last egg still inside.	Classroom
3	Go to AgExplorer.com and complete the Career Finder.	Classroom, SAE, FFA
4	Video journaling – Watch a short video clip, reflect in writing and share out. (https://www.youtube.com/watch?v=sc4HxPxNrZ0)	Classroom, SAE, FFA
5	In which sport are the shoes made entirely of metal? —Horse racing	Classroom, SAE, FFA
6	Which U.S. president (pictured below) was responsible for establishing the United States Department of Agriculture (USDA)? a. Abraham Lincoln b. Thomas Jefferson c. Alexander Hamilton d. Woodrow Wilson 	Classroom
7	How many pounds of milk does a dairy cow, on average, produce in a day? a. 100 lbs. b. 105 lbs. c. 175 lbs. d. 200 lbs.	Classroom, FFA
8	The farm value of 100lbs of milk (~12 gallons) is \$18.90. How much of that price goes back to the farmer? a. \$5.07 b. \$7.21 c. \$12.10 d. \$17.02	Classroom, FFA
9	Develop a list of everyday items that are produced from animal and plant byproducts. You have two minutes. Manufacturing: adhesives, lubricants, solvents Construction: lumber, paint, brushes, tar paper, tool handles Personal Care Items: shampoo, soap, cosmetics, lotions, toothpaste Healthcare: pharmaceuticals, surgical sutures, X-ray film, latex gloves Transportation: biofuels, lubricants, antifreeze, tires, upholstery Sports: uniforms, baseball bats, leather equipment Printing: ink, paper Education: Crayons, textbooks, chalk, desks, pencils Entertainment: strings for musical instruments	Classroom

10	In what year was barbed wire invented and utilized for livestock? a. 1791 b. 1802 c. 1837 d. 1867	Classroom
11	Identify five careers you could have in the Animal Systems Career Focus Area. – Examples: Veterinary science, parasitologist, carcass merchandiser, apiary worker/beekeeper, etc.	FFA, SAE, Classroom
12	Unscramble the animal terminology: ruarcigletu _____ frehie _____ osw _____ lubl _____ eestr _____ ti gl _____ wrbaro _____ aobr _____ ocw _____ lionstal _____ dggleni _____ tclo _____ rame _____ lyfil _____ wrehte _____ mar _____ edo _____ ckbu _____ wee _____ mbal _____ <u>Key</u> Agriculture Heifer Sow Bull Steer Gilt Barrow Boar Cow Stallion Gelding Colt Mare Filly Wether Ram Doe Buck Ewe Lamb	Classroom, FFA, SAE
13	Identify five colleges/universities that offer agriculture-related degrees. - Purdue University, University of Illinois, Kansas State, Texas Tech, University of Maryland, etc.	Classroom, FFA, SAE
14	What is the purpose and role of the United States Department of Agriculture (USDA)? “To provide leadership on food, agriculture, natural resources, rural development, nutrition, and related issues based on public policy, the best available science, and effective management.”	Classroom, FFA, SAE

15	A bear walks south for one kilometer, then it walks west for one kilometer, then it walks north for one kilometer and ends up at the same point from which it started. What color was the bear? -The bear was white because it was a polar bear. The only place on earth where a bear can go south, west and north equal distances and end up where it started is the North Pole.	Classroom															
16	The office manager at Catocin Veterinary Clinic is ordering supplies for the clinic. She purchases a case of calf colostrum with 12 cartons for \$135.00. How much would a customer pay per carton with a 45 percent markup? \$135.00/12 = \$11.25 \$11.25 x 0.45 = \$5.06 \$11.25 + \$5.06 = \$16.31 (final answer)	Classroom, FFA, SAE															
17	The office manager at Adobe Veterinary Clinic is ordering supplies for the clinic. He purchases a case of 12 slip-on leashes at \$6.00 each. How much total profit on all leashes will the clinic make with a 50 percent mark-up? A. \$72.00 B. \$108.00 C. \$36.00 D. \$3.00 12 x \$6.00 = \$72.00 \$72.00 x .50 = \$36.00	Classroom, FFA, SAE															
18	A relief veterinarian works at four different animal hospitals, during holidays, in 2017 with varying salaries as follows: <table border="1"> <thead> <tr> <th>Hospital</th><th>Hours</th><th>Salary</th></tr> </thead> <tbody> <tr> <td>A</td><td>68</td><td>\$1,938</td></tr> <tr> <td>B</td><td>45</td><td>\$1,080</td></tr> <tr> <td>C</td><td>72</td><td>\$1,872</td></tr> <tr> <td>D</td><td>56</td><td>\$1,624</td></tr> </tbody> </table> He is trying to determine in which two hospitals he will continue working in 2018. Analyze the salaries to find who offers him the best two salaries. a. A and B b. A and D c. B and C d. B and D	Hospital	Hours	Salary	A	68	\$1,938	B	45	\$1,080	C	72	\$1,872	D	56	\$1,624	Classroom, FFA, SAE
Hospital	Hours	Salary															
A	68	\$1,938															
B	45	\$1,080															
C	72	\$1,872															
D	56	\$1,624															
19	Approximately how long does it take a hen to produce one egg? a. 3 to 5 hours b. 6 to 10 hours c. 11 to 14 hours d. 15 to 21 hours e. 24 to 46 hours	Classroom, FFA, SAE															
20	On average, how many eggs does an average hen lay in a year? a. 100 to 125 b. 200 to 225 c. 300 to 325 d. 400 to 425	Classroom, FFA, SAE															
21	True or False: There are antibiotics in meat, milk and eggs. Using one to two sentences, explain your reasoning.	Classroom, FFA, SAE															
22	What term is given to chickens raised for meat production? a. Hens b. Broilers c. Rooster d. Turkey	Classroom, FFA, SAE															

23	What career area is the largest employer in the world? a. Medicine b. Manufacturing c. Education d. Agriculture	Classroom, FFA, SAE
24	What country consumes more eggs per capita each year? a. Mexico b. USA c. France d. Portugal e. India	Classroom, FFA, SAE
25	According to the U.S. Pet Ownership & Demographics Sourcebook by the American Veterinary Medical Association (AVMA), what state has the highest percentage of households that have owned a dog? a. Arkansas b. New Mexico c. Kentucky d. Missouri e. West Virginia	Classroom, FFA, SAE
26	How much protein does one eight-ounce glass of milk contain? a. 2 grams b. 4 grams c. 6 grams d. 8 grams e. 10 grams	Classroom, FFA, SAE
27	Hunger in America is a large concern. Approximately how many people in America are affected by hunger? a. 18 million b. 28 million c. 38 million d. 48 million e. 58 million	Classroom, FFA, SAE
28	When is National Pizza Day? a. January 10 b. February 9 c. April 21 d. May 6	Classroom
29	What well-known scientist (pictured below) discovered that when you heat liquids to high temperatures you can kill bacteria? HINT: This led to the process of pasteurization. a. Marie Curie b. Albert Einstein c. Fanny Farmer d. Louis Pasteur 	Classroom, FFA
30	How do dogs get heartworm? a. Bites b. Scratches c. Mosquitos d. Ticks	Classroom, FFA, SAE

31	A house has four walls. All the walls are facing south, and a bear is circling the house. What color is the bear? -The bear is white because the house is on the North Pole	Classroom, FFA
32	Which weighs more, a pound of feathers or a pound of bricks? -Neither, they both weigh one pound	Classroom, FFA
33	A cowboy rides into town on Friday, stays for three days and then leaves on Friday. How did he do it? -Friday is the name of the horse	Classroom, FFA
34	My name is Rugar. I live on a farm. There are four other dogs on the farm with me. Their names are Snowy, Flash, Speedy and Brownie. What do you think the fifth dog's name is? -Rugar	Classroom, FFA
35	How do dog catchers get paid? -By the pound	Classroom, FFA
36	What has to be broken before you can use it? -An egg	Classroom, FFA
37	Draw a picture of what the word <i>agriculture</i> means to you. You have five minutes to complete the drawing.	Classroom, FFA, SAE
38	An animal with a diet of plants only is called a(n) ____. a. Herbivore b. Predator c. Carnivore d. Omnivore	Classroom, FFA, SAE
39	 What breed of horse is this? a. Morgan b. American Saddlebred c. Arabian d. Tennessee Walking Horse	Classroom, FFA, CDE
40	 What breed of horse is this? a. Clydesdale b. Paint c. Arabian d. Morgan	Classroom, FFA, SAE

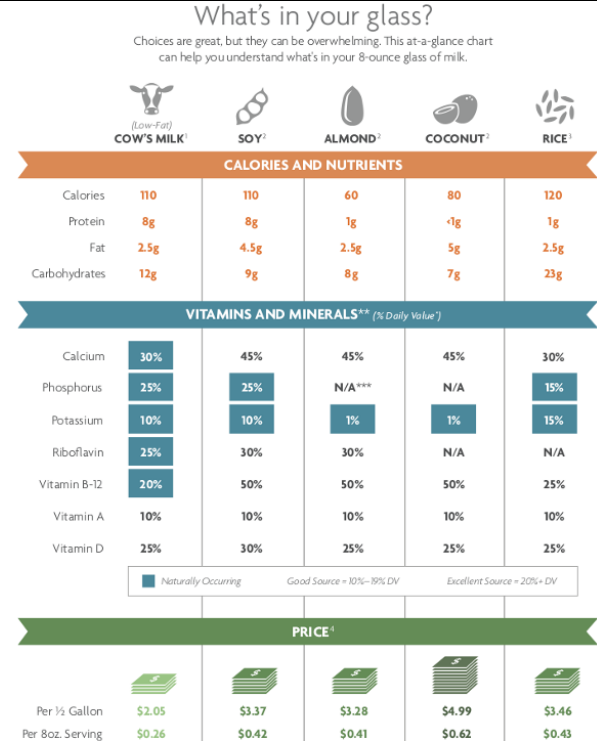
41	 What is the coat color seen here? - Bay roan - Blue roan Cremello - Dun	Classroom, FFA, SAE
42	What animal system is responsible for producing hormones? - Lymphatic system Endocrine system - Nervous system - Circulatory system	Classroom, FFA, SAE
43	Boar goats originated in ____. South Africa - South America - Kenya - Liberya	Classroom, FFA, SAE
44	Chronic wasting disease in deer, ____ in sheep and Creutzfeldt-Jakob diseases are all similar to mad cow disease. - Enteritis Scrapie - Spider-Lamb Syndrome - Trichomonias	Classroom, FFA, SAE
45	Most dairy cows are milked two to three times per day. On average, a cow will produce ____ gallons of milk each day. 1 to 2 8 to 9 15 to 16 20 to 21	Classroom, FFA, SAE
46	Farm Resource Regions  (Image can be found at https://www.ers.usda.gov/webdocs/publications/42298/32489_aib-760_002.pdf?v=42487.) What region do we live in, and what are some of our greatest commodities according to the map from the USDA?	Classroom

47	Utilizing the State Agricultural Facts map (https://www.agclassroom.org/teacher/ag_facts.cfm), identify and write down five interesting facts that you did not know about your state.	Classroom
48	Write a tweet about how agriculture impacted you this weekend.	Classroom
49	Watch this video: https://youtu.be/q7FuDeOpSUY . 1.What role does Zoetis play in the animal industry? 2.Why does Zoetis care so much?	Classroom, FFA, SAE
50	Watch this video: https://youtu.be/0PU6BkSMUoA . 1.What careers exist in agriculture that are not production based? 2.What role do America's farmers play in our economy?	Classroom
51	Watch this video: https://youtu.be/B_WSLbw3ApA . 1.What benefits are there to being employed in agriculture? Identify three.	Classroom, FFA, SAE
52	Watch this video: https://youtu.be/FxMHI5Gr2Yq . 1. What are scientists doing to help feed a growing population?	Classroom, FFA, SAE
53	Current Event: Compassion fatigue, coupled with mental and emotional issues, in veterinary medicine is starting to define the profession. While practicing veterinary medicine brings joy to many in the field, there is a heavy emotional load on veterinary professionals. Share your thoughts, in three to five sentences, about why compassion fatigue is prevalent in veterinary medicine and how veterinary professionals can combat the issue.	Classroom, FFA, SAE
54	Current Event: Obesity has rapidly become an epidemic for our pets. New research shows that 25 to 40 percent of dogs and cats who visit a veterinary clinic are overweight or obese. In addition, the incidence of overweight or obese pets appears to be on the rise. Acting as a vet technician, write a brief (three to five sentences) client education sheet on how you would explain the risks of an obese pet to a pet owner.	Classroom, FFA, SAE
55	The main "greenhouse gases" (GHGs) associated with animal production are a. Carbon monoxide, methane and nitrous oxide. b. Carbon dioxide and ammonia. c. Carbon dioxide, methane and nitrous oxide. d. None of the gases listed above are major contributors to the "carbon footprint" of the food animal industry.	Classroom, FFA, SAE
56	Which breed of dairy cattle is known for its high fluid milk production? a. Brown Swiss b. Milking Shorthorn c. Jersey d. Holstein	Classroom, FFA, SAE
57	What relationship exists between science and agriculture? Give two examples to illustrate your response.	Classroom, FFA, SAE
58	What is the purpose of a literature review in agriscience research? -To support and show previously completed research that directly relates to your research	Classroom, FFA, SAE
59	What is the purpose of the materials and methods section in an agriscience report/research study? -To give readers a clear understanding of the process and materials required to complete the research. Materials and methods also allow the reader to know how to replicate the study.	Classroom, FFA, SAE



60	What is a hypothesis? Why is a hypothesis created when completing agricultural research? -A hypothesis is a brief statement of the anticipated results from a study being conducted. The hypothesis will be revisited in the results and conclusions section of the study write-up.	Classroom, FFA, SAE
61	What is the role/purpose of an abstract when writing an agriscience research study? -The abstract is a brief summary of the purpose of the study, background information of the topic being studied, the materials/methods, the results and conclusions	Classroom, FFA, SAE
62	Head to the USDA website at https://www.fsis.usda.gov/wps/portal/informational/aboutfsis/state-fact-sheets. Find your state and pull up the fact sheet. 1. What is the role of FSIS? 2. How many FSIS employees are in your state? 3. What agricultural commodity does your state excel in?	Classroom, FFA, SAE
63	Head to the USDA website at https://www.fsis.usda.gov/wps/portal/informational/aboutfsis/state-fact-sheets. Find your state and pull up the fact sheet. 1. What is the role of FSIS? 2. How many FSIS employees are in your state? 3. What agricultural commodity does your state excel in?	Classroom, FFA, SAE
64	What is the role of the Center for Disease Control in our food supply? - "They work with state and local health departments and other federal agencies to investigate foodborne outbreaks."	Classroom, FFA, SAE
65	What is a zoonotic disease? a. A disease found in a zoo. b. A disease that zoo animals pass back and forth. c. A disease that affects only humans. d. A disease that can be passed from animals to humans.	Classroom, FFA, SAE
66	 1. Which tool is pictured above? a. Autoclave b. Pressure cooker c. Ophthalmoscope d. Ambubag 2. What is the purpose of this tool? -An autoclave is utilized to sterilize materials (i.e. equipment).	Classroom, FFA, SAE
67	Which tool is pictured? a. Scissors – Lister bandage b. Scissors – Bandage c. Scissors – Mayo dissecting d. Scissors – Suture wire cutting 	Classroom, FFA, SAE

68	 1. Which tool is pictured above? - Hoof knife - Elizabethan collar - Centrifuge Ambu bag 2. What is the purpose/role of this tool? -An Ambu bag is used to deliver oxygen to the lungs of an animal.	Classroom, FFA, SAE
69	 1. Which tool is pictured above? - Hoof knife - Elizabethan collar Centrifuge - Ambu bag 2. What is the purpose of this tool? -The purpose of a centrifuge is to spin liquids to cause separation.	Classroom, FFA, SAE
70	Find an impactful member of the agricultural community from history. Create a tweet about the impact that person has had in the agriculture industry.	Classroom, FFA, SAE
71	Read the article "Women's eye hosts more than a dozen cattle eyeworms," https://www.sciencenewsforstudents.org/article/womans-eye-hosts-more-dozen-cattle-eyeworms . Assume the role of a health professional. What types of precautions would you inform other patients about regarding this nematode? (prevention, causes, etc.)	Classroom, FFA, SAE
72	Read the article "Cool Jobs: Linking animal health to human health," https://www.sciencenewsforstudents.org/article/cool-jobs-linking-animal-health-human-health . Identify five careers you could potentially have in relation to what is discussed in the article.	Classroom, FFA, SAE
73	Read the article "Fish get pooped living in polluted water," https://www.sciencenewsforstudents.org/article/fish-get-pooped-living-polluted-water . 1. Create a numbered lab procedure to outline the research study that was performed in this article. 2. What implications will this research have for the future of our natural resource systems?	Classroom, FFA, SAE

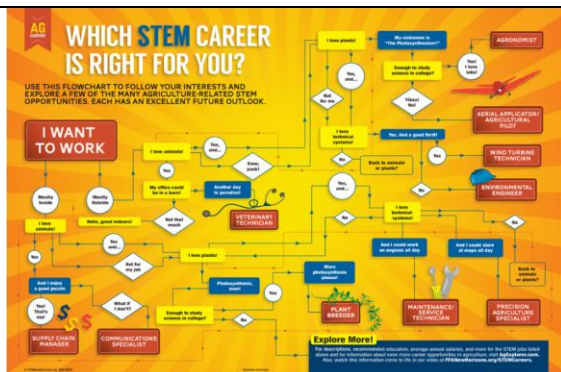
74	Rank ten dog breeds from best to worst. Explain why you ranked them as you did.	Classroom, FFA, SAE
75	Write a two-minute elevator speech about what agriculture is/means. This elevator speech should be written for a student at the elementary level that has never taken an agriculture class.	Classroom, FFA, SAE
76	Read the following farm-to-plate story of the American dairy supply: https://dairygood.org/content/2017/milks-food-safety-story . Create an illustrated flow chart depicting the farm-to-plate process for dairy products.	Classroom , FFA, SAE
77	What's in your glass? Choices are great, but they can be overwhelming. This at-a-glance chart can help you understand what's in your 8-ounce glass of milk.  (Image can be found at https://www.nationaldairycouncil.org/content/2015/whats-in-your-glass.) You and a friend are at lunch when you open a bottle of chilled milk. Your friend is consuming chilled almond milk. Which drink is a healthier choice? Why?	Classroom, FFA
78	Should we, as consumers, be concerned about the hormones found in milk? Read the following article from the National Dairy Council/Dairy Good to find out! https://dairygood.org/content/2018/should-i-be-concerned-about-hormones-in-milk Create a Facebook post that answers the question (Should we, as consumers, be concerned about the hormones found in milk?).	Classroom, FFA, SAE

79	Hormone Implants ARE SAFE A three-ounce serving of beef from a steer implanted with estradiol contains 1.9 nanograms of estrogen. A three-ounce serving of potatoes contains 225 nanograms of estradiol. A three-ounce serving of cabbage contains 2,000 nanograms of estradiol. Every day, an average woman produces 513,000 nanograms of estradiol. Every day, an average man produces 136,000 nanograms of estradiol. ARE PRACTICAL Bulls' hormone implants are removed to early aggression for the safety and welfare of the animals. They are called "downers" and the people who interact with them, and to make beef more tender and flavorful. Implants restore a enough of a steer's naturally produced hormone levels to grow efficiently.¹ Hormone implants balance a bull's natural hormone levels to allow it to grow more muscle instead of fat.² ARE SUSTAINABLE To raise the same amount of beef WITHOUT hormone implants, it would take:^{3,4,5} 11 MILLION MORE cattle in the U.S. beef herd 18 MILLION MORE acres of land for grazing and growing feed 515 BILLION MORE gallons of water for producing feed and maintaining animals 1. USDA, National Animal Health Monitoring System, 2008-2010. 2. USDA, National Animal Health Monitoring System, 2008-2010. 3. USDA, National Animal Health Monitoring System, 2008-2010. 4. USDA, National Animal Health Monitoring System, 2008-2010. 5. USDA, National Animal Health Monitoring System, 2008-2010. (Image can be found at FFA.org/SiteCollectionDocuments/Hormone%20infographic%20GMAPP%20Certified%20Updated%2012-06-17.pdf.) Utilizing the infographic, compare and contrast the pros and cons of using hormone implants in beef animals.	Classroom, FFA, SAE															
80	The Farmer's Share Of The Retail Dollar Did you know that farmers and ranchers receive only 15.6* cents of every food dollar that consumers spend on food at home and away from home? According to USDA, off farm costs including marketing, processing, wholesaling, distribution and retailing, account for more than 80 cents of every food dollar spent in the United States. <table border="1"> <thead> <tr> <th>Product</th> <th>Retail Price</th> <th>Farmer's Share</th> </tr> </thead> <tbody> <tr> <td>Boneless Ham (1 Pound)</td> <td>\$3.99</td> <td>\$0.74</td> </tr> <tr> <td>Bread (2 Pounds)</td> <td>\$3.49</td> <td>\$0.12</td> </tr> <tr> <td>Potatoes (Russet, 5 Pounds)</td> <td>\$4.49</td> <td>\$0.56</td> </tr> <tr> <td>Top Sirloin (1 Pound)</td> <td>\$8.99</td> <td>\$2.01</td> </tr> </tbody> </table> (Image can be found at https://nfu.org/.) Where does the money go when you purchase a food product at the store?	Product	Retail Price	Farmer's Share	Boneless Ham (1 Pound)	\$3.99	\$0.74	Bread (2 Pounds)	\$3.49	\$0.12	Potatoes (Russet, 5 Pounds)	\$4.49	\$0.56	Top Sirloin (1 Pound)	\$8.99	\$2.01	Classroom, FFA, SAE
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81	Economic Impact of TURKEY in the United States The total economic impact of the turkey industry including supplier and induced impact is: \$97B (\$97,457,552,900) TURKEY FACTS Turkey is a delicious, nutritious protein. A 3-ounce serving of boneless, skinless turkey breast contains 26 grams of protein, 1 gram of fat, and 0 grams of saturated fat. In 2010, more than 244 million turkeys were raised with more than 226 million turkeys consumed in the United States. It is estimated that 46 million of those turkeys were eaten at Thanksgiving, 22 million at Christmas, and 19 million at Easter. Direct Jobs 112,836 Direct Wages \$6.5 Billion Direct Impact \$35,711,306,400 The direct impact of the turkey industry. Supply Chain From farming to manufacturing, to trucking, and retailing, the turkey industry has a supplier and induced impact of \$61.7 Billion. Taxes \$7.5B \$2.43 Billion State \$5.07 Billion Federal www.TurkeyFeedsAmerica.org (Image can be found at http://www.eatturkey.com/content/our-people-and-our-birds.) 1. What impact does turkey production have in the U.S.? 2. How has turkey production impacted you?	Classroom, FFA, SAE															

82	Watch this video: https://youtu.be/O5EEGNK-q7g. 1. Create a flow chart to describe the production process of a broiler chicken.	Classroom, FFA, SAE																											
83	Watch this video: https://www.chickencheck.in/chicken-guarantees/. Using three to five sentences, describe the broiler chicken production process to someone who feels broiler chickens are produced inhumanely and inefficiently in crowded or caged conditions.	Classroom, FFA, SAE																											
84	As of 2017, which of the following states is number one in beef cattle production? - Colorado - Kansas Texas - Nebraska	Classroom, FFA, SAE																											
85	Approximately how long does it take beef to go from farm to fork? 1 to 2 years 2 to 3 years 3 to 4 years 4 to 5 years	Classroom, FFA, SAE																											
86	Watch this video: https://youtu.be/_FKJ5EKgmhU. Using three to five sentences, reflect on how antibiotics are selected, administered and regulated in the animal industry.	Classroom, FFA, SAE																											
87	Select one of the common myths from the animal production industry. Using two to three sentences, write a script to discuss this myth with a friend. https://www.meatinstitute.org/index.php?ht=a/GetDocumentAction/i/115211	Classroom, FFA, SAE																											
88	Putting Antibiotics into Perspective There are far more farm animals in the United States than people: 323 million people vs. 2.2 billion cows, pigs, turkeys and chickens¹ You may have heard that 80% of antibiotics in the United States are used in agriculture, but that statistic makes more sense when it's put into perspective! * Other species are also included in the 80% statistic like sheep, goats, fish and companion animals - dogs, cats and horses. They increase the number of animals but are not reflected on this chart. Since some farm animals are generally more massive than humans, they require a larger volume of antibiotics to treat, prevent and control disease.^{2,3} 195 lbs. 1,300 lbs. 283 lbs. <table border="1"> <thead> <tr> <th colspan="3">Most antibiotics are used only in animals or only in humans, not in both.⁴</th> </tr> <tr> <th>Use by Volume</th> <th>Humans</th> <th>Animals</th> </tr> </thead> <tbody> <tr> <td>Penicillins</td> <td>44%</td> <td>6%</td> </tr> <tr> <td>Cephalosporins</td> <td>15%</td> <td>1%</td> </tr> <tr> <td>Sulfas</td> <td>14%</td> <td>3%</td> </tr> <tr> <td>Quinolones</td> <td>9%</td> <td>Less than 1%</td> </tr> <tr> <td>Macrolides</td> <td>5%</td> <td>4%</td> </tr> <tr> <td>Tetracyclines</td> <td>4%</td> <td>41%</td> </tr> <tr> <td>Ionophores*</td> <td>0%</td> <td>30%</td> </tr> </tbody> </table> * Ionophores are never used in human medicine Antibiotics are used to treat, control and prevent illness in animals. Antibiotics are thoroughly tested and regulated and are used judiciously by farmers and veterinarians.⁵ FDA The FDA sets "withdrawal times" based on research to assure antibiotics have cleared an animal's system before it enters the food supply.⁶ USDA The USDA's Food Safety and Inspection Service routinely tests food to ensure it is free of antibiotic residues.⁷ Antibiotics that are medically important to humans must be administered under direct veterinary supervision.⁸ CDC The CDC is working to reduce antibiotic use in humans and says at least 36% of antibiotics prescribed in U.S. doctor's offices and emergency rooms are unnecessary.⁹ (Image can be found at https://www.ffa.org/SiteCollectionDocuments/Antibiotic%20infographic%20GMAPP%20Certified%20Updated%2012-06-17.pdf.) The general public has a negative view about the use of antibiotics in animal agriculture. Using the "Putting Antibiotics into Perspective" infographic, develop a one-minute elevator speech to share the truth about antibiotic usage in animals.	Most antibiotics are used only in animals or only in humans, not in both. ⁴			Use by Volume	Humans	Animals	Penicillins	44%	6%	Cephalosporins	15%	1%	Sulfas	14%	3%	Quinolones	9%	Less than 1%	Macrolides	5%	4%	Tetracyclines	4%	41%	Ionophores*	0%	30%	Classroom, FFA, SAE
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89	Using the Coalition for Safe Affordable Food state activity website (http://coalitionforsafeaffordablefood.org/state-action-center/), create a tweet that highlights a current event in your state.	Classroom, FFA, SAE
90	This scientist not only was awarded the Nobel Peace Prize for his work in addressing hunger globally, but he also developed the World Food Prize to recognize those individuals making an impact in the world of agriculture.  a. George Washington Carver b. John Deere c. Phillip Nelson d. Dr. Norman Borlaug	Classroom
91	Using the World Food Prize Laureates page, find a laureate of interest to you and write a two to three sentence blog post about their accomplishments and agricultural impact. https://www.worldfoodprize.org/index.cfm?nodeID=90971&audienceID=1	Classroom, FFA, SAE
92	Using two to three sentences, explain why and how you should advocate for hunger.  (Image can be found at http://alliancetoendhunger.org/aeH-playbook/.)	Classroom, FFA, SAE
93	Go to the Feeding America "Hunger is Closer than You Think" webpage (http://www.feedingamerica.org/hunger-in-america/) and select your state. Draw a picture that accurately represents what your state looks like regarding hunger. 	Classroom, FFA, SAE
94	Which of the following livestock species consumes the least amount of corn each year? a. Poultry b. Beef c. Pork d. Dairy	Classroom, FFA, SAE

95	Using the website https://www.ffanewhorizons.org/category/ag-101/career-pathways/ , select an agricultural career pathway and describe five skills necessary to be successful in that area of agriculture.	Classroom, FFA, SAE
96	Select a career focus area of interest to you (use AgExplorer.ffa.org) and create a tweet about that focus area.	Classroom, FFA, SAE
97	How do we know that young dairy calves are healthy? Why are they separated? Watch the video to find out and then journal a response. https://youtu.be/BLCo7pKQsxM	Classroom, FFA, SAE
98	Identify four ways animals are kept safe during cold winters. Why is this so important? https://youtu.be/dLzGHn-An2c	Classroom, FFA, SAE
99	What are the pros and cons of being a small animal veterinarian? https://youtu.be/8VV0owRAUAM	Classroom, FFA, SAE
100	How do we know if a horse is experiencing movement issues? Give two examples. https://youtu.be/zLilqxrSLYo	Classroom, FFA, SAE
101	What must be done in swine operations to ensure swine herd health? Give three examples. https://youtu.be/oKmRd6-cniI	Classroom, FFA, SAE
102	What can humans do to handle cattle humanely, safely and calmly? Give three examples. https://youtu.be/JawE6CLKHhc	Classroom, FFA, SAE
103	Watch the video available at https://youtu.be/xhtQf22GzJs and answer the following questions: (1) What is artificial insemination? (2) Why do farmers utilize artificial insemination?	Classroom, FFA, SAE
104	Watch the video available at https://youtu.be/fhnaoXacB8U and answer the following questions: (1) What behavioral characteristics indicate a cow is about to have a calf? (2) What is the gestation for a cow? (3) Why do farmers and/or vets like to be around when a new animal is born?	Classroom, FFA, SAE
105	Watch the video available at https://youtu.be/R3FvqnSItWc and identify five careers that can be found within the animal science industry.	Classroom, FFA, SAE
106	Watch the video available at https://youtu.be/MmCCrV1RI9Y and respond to the following questions: (1) What is a wildlife biologist? (2) What personality characteristics do you need to have to be successful in an animal biology career? Identify three characteristics.	Classroom, FFA, SAE
107	Compare and contrast animal welfare and animal rights.	Classroom, FFA, SAE



(Image can be found at <https://www.ffanewhorizons.org/2017/08/28/which-stem-career-is-right-for-you/>.)

1. Use the infographic to determine what STEM career is right for you.
2. Why do you think you ended up at this career? (Think about your personality and skills as you answer this question.)

Classroom, FFA, SAE

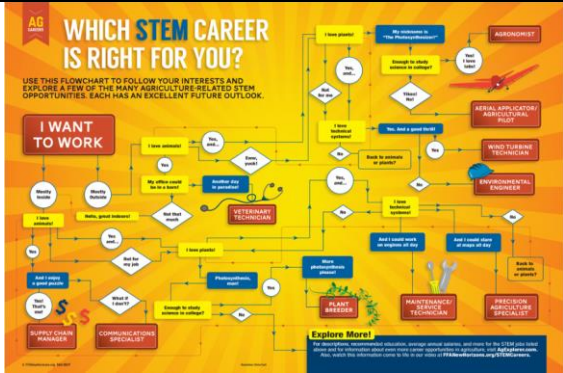
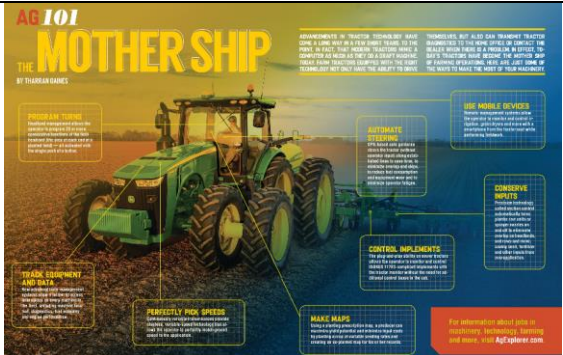
CAREERS AND SUPERVISED AGRICULTURAL EXPERIENCE (SAE) PROGRAMS

	Question	3-Component Model Category
1	Go to AgExplorer.com and complete the Career Finder.	Classroom, SAE, FFA
2	Video journaling – Watch a short video clip, reflect in writing and share out. (https://www.youtube.com/watch?v=sc4HxPxNrZ0)	Classroom, SAE, FFA
3	Video journaling – Watch a short video clip, reflect in writing and share out. (https://www.youtube.com/watch?v=2pXuAw1bSQo)	Classroom, SAE, FFA
4	Video journaling – Watch a short video clip, reflect in writing and share out. (https://www.youtube.com/watch?v=6xINyWPpB8)	Classroom, SAE, FFA
5	Which of the following is a term used in the forestry industry to describe the segment that works with maintenance and cultivation of trees? a. Vermiculture b. Silviculture c. Parasitology d. Viticulture	Classroom, SAE
6	What are the parts of the 3-Component Model for School-Based Agricultural Education? a. Animals, plants, foods b. Family, friends, agriculture c. Careers, classroom, SAE d. Classroom, SAE, FFA	FFA, Classroom, SAE
7	What does SAE stand for? a. Scientific Agricultural Exploration b. Supervised Agricultural Experience c. Standardized Agricultural Experience d. Supervised Agricultural Exploration	Classroom, SAE
8	Identify five skills you could gain by having a supervised agricultural experience (SAE) program. –Time management, responsibility, etc.	Classroom, SAE
9	Maggie raises chickens and sells the eggs to local customers. What type of supervised agricultural experience (SAE) program would this student have? –Poultry Entrepreneurship	Classroom, SAE
10	Brenden works at the local veterinarian clinic. He cleans kennels and answers phone calls. What type of supervised agricultural experience (SAE) would this student have? – Small Animal Placement	Classroom, SAE
11	Marlene has two soybean plots to determine which hybrid will yield the most product. What type of supervised agricultural experience (SAE) program would this student have? – Crop Production Research	Classroom, SAE
12	What is a supervised agricultural experience (SAE) proficiency award? a. More paperwork I have to complete b. A way to get recognition for my SAE c. The best way to document my SAE d. The only way for my advisor to grade my SAE	Classroom, SAE
13	Which of the following SAEs would a student excel at if they enjoy science, agriculture and finding answers to questions that have not yet been discovered? a. Exploratory b. Placement c. Entrepreneurship d. Research	Classroom, SAE

14	Identify five careers you could have in the Animal Systems Career Focus Area. – Examples: Veterinary science, parasitologist, carcass merchandiser, apiary worker/beekeeper, etc.	Classroom, FFA, SAE
15	Identify five careers you could have in the Agribusiness Systems Career Focus Area. – Examples: Accountant, communications specialist, grain elevator manager, event manager, etc.	Classroom, FFA, SAE
16	Identify five careers you could have in the Biotechnology Systems Career Focus Area. – Examples: Animal geneticist, biostatistician, embryologist, dispatcher, etc.	Classroom, FFA, SAE
17	Identify five careers you could have in the Environmental Systems Career Focus Area. – Examples: Climate change analyst, environmental engineer, formulation chemist, nematologist, etc.	Classroom, FFA, SAE
18	Identify five careers you could have in the Food Products and Processing Systems Career Focus Area. – Examples: Brand manager, extension agent, flavor technologist, graphic designer, food safety specialist, etc.	Classroom, FFA, SAE
19	Identify five careers you could have in the Natural Resource Systems Career Focus Area. – Examples: Arborist, conservationist, ecologist, forester, geologist, etc.	Classroom, FFA, SAE
20	Identify five careers you could have in the Plant Systems Career Focus Area. – Examples: Aerial applicator/Agricultural pilot, agronomist, crop advisor, formulation chemist, floral designer, etc.	Classroom, FFA, SAE
21	Identify five careers you could have in the Power, Structural and Technical Systems Career Focus Area. – Examples: Construction foreman, brand manager, electrical engineer, design engineer, hydraulic technician, etc.	Classroom, FFA, SAE
22	What is the difference between a bachelor's degree, a master's degree and a doctorate?	Classroom, FFA, SAE
23	What is your dream job and why?	Classroom, FFA, SAE
24	What is the purpose and role of the United States Department of Agriculture (USDA)? "To provide leadership on food, agriculture, natural resources, rural development, nutrition, and related issues based on public policy, the best available science, and effective management."	Classroom, FFA, SAE
25	What career area is the largest employer in the world? a. Medicine b. Manufacturing c. Education d. Agriculture	Classroom, FFA, SAE
26	Draw a picture of what the word <i>agriculture</i> means to you. You have five minutes to complete the drawing.	Classroom, FFA, SAE
27	Find a natural resources resource/publication (https://www.fs.usda.gov/naspf/resources-and-publications) of interest to you and determine the following: (1) What is the issue? (2) accomplishments/program status and (3) future direction. Be ready to share!	Classroom, FFA, SAE
28	What is the purpose and role of the U.S. Forest Service?	Classroom, FFA, SAE

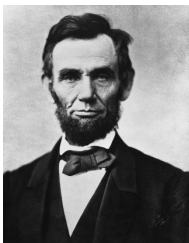
29	Watch this video: https://youtu.be/q7FuDeOpSUy . 1. What role does Zoetis play in the animal industry? 2. Why does Zoetis care so much?	Classroom, FFA, SAE
30	Watch the video available at https://youtu.be/wfILgW3LgIk and respond to the following questions: 1. What role does CSX Transportation play in the agriculture industry? 2. Identify two careers you could have through CSX Transportation.	Classroom, FFA, SAE
31	Watch the video available at https://youtu.be/h9KDUU6ZagQ and respond to the following questions 1. What role does Bayer play in the agriculture industry? 2. How does science help Bayer find solutions to feeding the growing population?	Classroom, FFA, SAE
32	1. What role does RFD TV: Rural America's Most Important Network play in communicating agriculture? 2. What career area would you be involved in if you worked for RFD TV? 	Classroom, FFA, SAE
33	Watch the video available at https://youtu.be/0PU6BkSMUoA and respond to the following questions: 1. What careers exist in agriculture that are not production based? 2. What role do America's farmers play in our economy?	Classroom, FFA, SAE
34	Watch the video available at https://youtu.be/B_WSLbw3ApA and respond to the following question: 1. What benefits are there to being employed in agriculture? Identify three.	Classroom, FFA, SAE
35	Watch the video available at https://youtu.be/FxMHI5Gr2Yg and respond to the following question: 1. What are scientists doing to help to feed a growing population?	Classroom, FFA, SAE
36	What relationship exists between science and agriculture? Give two examples to illustrate your response.	Classroom, FFA, SAE
37	What is the role of the Centers for Disease Control in our food supply? "They work with state and local health departments and other federal agencies to investigate foodborne outbreaks."	Classroom, FFA, SAE
38	Find an impactful member of the agricultural community from history. Create a Tweet about the impact that person has had in the agriculture industry.	Classroom, FFA, SAE
39	Read the following article and respond with six emojis that represent your thoughts/feelings about the material: https://newsela.com/read/eleman-san-francisco-hotel-rooftop-bees/id/41820	Classroom, FFA, SAE
40	Read the article "Cool Jobs: Linking animal health to human health," https://www.sciencenewsforstudents.org/article/cool-jobs-linking-animal-health-human-health . Identify five careers you could potentially have related to what is discussed in the article.	Classroom, FFA, SAE
41	Read the article "Fish get pooped living in polluted water," https://www.sciencenewsforstudents.org/article/fish-get-pooped-living-polluted-water . 1. Create a numbered lab procedure to outline the research study that was performed in this article. 2. What implications will this research have for the future of our natural resource systems?	Classroom, FFA, SAE

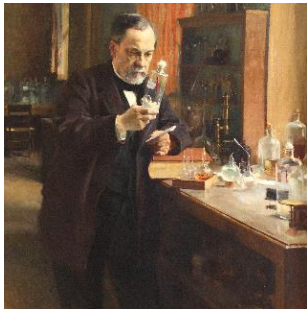
42	Read the article "New 'tattoo' could lead to drought-tolerant crops," https://www.sciencenewsforstudents.org/article/new-tattoo-could-lead-drought-tolerant-crops 1. Using three to five sentences, describe the impact this technology could have on addressing the growing food crisis in the world.	Classroom, FFA, SAE
43	Read the article "Robots will control everything you eat," https://www.sciencenewsforstudents.org/article/robots-will-control-everything-you-eat. 1. List three facts and three opinions you have regarding the utilization of robots in agriculture.	Classroom, FFA, SAE
44	Write a two-minute elevator speech about what agriculture is/means. This elevator speech should be written for a student at the elementary level that has never taken an agriculture class.	Classroom, FFA, SAE
45	Create an SAE idea card for your SAE or an SAE you are interested in pursuing. https://ffa.box.com/s/p1ldu8gc1vj83n0b0zfxu0b48n6drz32.	Classroom, FFA, SAE
46	Watch an SAE video found on the National FFA website (ffa.org/ffa-video-center). Identify five skills that you could learn from having an SAE.	Classroom, FFA, SAE
47	Watch the video "Day in the Life of a Disney Food Scientist" (http://u7.ift.org/Knowledge-Center/Learn-About-Food-Science/Day-In-The-Life/Disney-and-IFT.aspx). As you watch the video, create a flow chart that maps out the day of a Disney food scientist.	Classroom, FFA, SAE
48	Watch the video "Michele Perchonok: Food Scientist at NASA" (http://www.ift.org/knowledge-center/learn-about-food-science/day-in-the-life/michele-perchonok.aspx). What role does a food scientist play in developing foods and food packaging for astronauts?	Classroom, FFA, SAE
49	This scientist was not only awarded the Nobel Peace Prize for his work in addressing hunger globally, but he also developed the World Food Prize to recognize those individuals making an impact in the world of agriculture.  a. George Washington Carver b. John Deere c. Phillip Nelson d. Dr. Norman Borlaug	Classroom, SAE
50	Using the World Food Prize Laureates page, find a laureate of interest to you and write a two to three sentence blog post about their accomplishments and agricultural impact. https://www.worldfoodprize.org/index.cfm?nodeID=90971&audienceID=1	Classroom, SAE

51	Watch the video "Ag & Bio Engineering: Meeting the Needs of Humankind" (https://youtu.be/WM16bY0W8o8). 1. What does an agricultural and biological engineer do? 2. What impact do they have on the world and economy?	Classroom, FFA, SAE
52	Read "On the Record: Chris Johns" in <i>FFA New Horizons</i>: https://www.ffanewhorizons.org/2017/08/30/on-the-record-chris-johns/. Write a Facebook post about Chris John's experiences and how FFA helped him to find his passion.	Classroom, FFA, SAE
53	Read "On the Record: Easton Corbin" in <i>FFA New Horizons</i>: https://www.ffanewhorizons.org/2017/02/24/what-i-know-easton-corbin/. Write a Facebook post about Easton Corbin's experiences and how FFA helped him to find his passion.	Classroom, FFA, SAE
54	Read "On the Record: Ray Starling" in <i>FFA New Horizons</i>: https://www.ffanewhorizons.org/2017/03/14/qa-ray-starling-special-assistant-to-the-president/. Write a Facebook post about Ray Starling's experiences and how FFA helped him to find his passion.	Classroom, FFA, SAE
55	 (Image can be found at https://www.ffanewhorizons.org/2017/08/28/which-stem-career-is-right-for-you/.) 1. Use the infographic to determine STEM career is right for you. 2. Why do you think you ended up at this career? (Think about your personality and skills as you answer this question.)	Classroom, FFA, SAE
56	 (Image can be found at https://www.ffanewhorizons.org/2017/11/22/ag-101-the-mother-ship/.) 1. How has agricultural technology evolved over the years? 2. What impact does this change have on the agriculture industry's ability to feed a growing population?	Classroom, FFA, SAE

57	Using the website available at https://www.ffaewhorizons.org/category/ag-101/career-pathways/ , select an agricultural career pathway and describe five skills necessary to be successful in that area of agriculture.	Classroom, FFA, SAE
58	Take the Money Management Quiz: https://sorted.org.nz/tools/money-personality-quiz . 1. Do you think the results are accurate? 2. How can this insight into your money management help you in your SAE?	Classroom, SAE
59	Take this career quiz: https://www.goconstruct.org/personality-quiz/index.htm . 1. Which careers are you most suited for in construction? 2. Is this result accurate? 3. Why or why not?	Classroom, SAE
60	Select a career focus area of interest to you (use AgExplorer.com) and create a Tweet about that focus area.	Classroom, SAE
61	What are the pros and cons of being a small animal veterinarian? https://youtu.be/8VVOowRAUAM	Classroom, FFA, SAE
62	What can humans do to handle cattle humanely, safely and calmly? Give three examples. https://youtu.be/JawE6CLKHhc	Classroom, FFA, SAE
63	Watch the video available at https://youtu.be/xhtQf22GzJs and respond to the questions: 1. What is artificial insemination? 2. Why do farmers utilize artificial insemination?	Classroom, FFA, SAE
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65	Watch the video available at https://youtu.be/MmCCrV1RI9Y and respond to the questions: 1. What is a wildlife biologist? 2. What personality characteristics do you need to be successful in an animal biology career? Identify three characteristics.	Classroom, FFA, SAE
66	How many proficiency award areas exist? a. 23 b. 39 c. 47 d. 52	Classroom, SAE
67	Watch the video available at https://youtu.be/kVMEfoaLB5Y and respond to the following questions: 1. What skills do you need to be successful in an ag and turf technician career? 2. What education requirements exist for this type of career?	Classroom, FFA, SAE

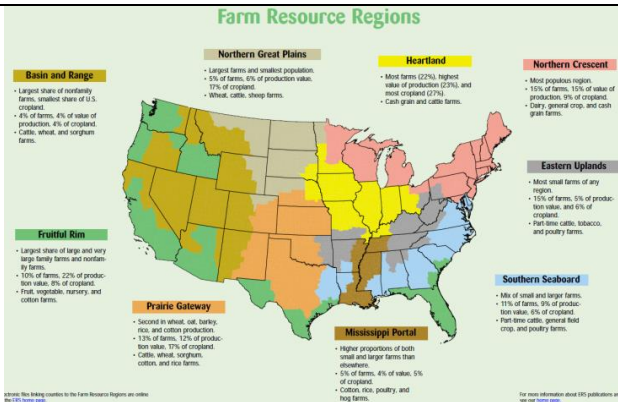
FOOD PRODUCTS AND PROCESSING SYSTEMS CAREER FOCUS AREA

	Question	3-Component Model Category
1	What kind of cheese is made backward? -EDAM cheese (made spelled backward)	Classroom
2	There are six eggs in the basket. Six people each take one of the eggs. How can it be that one egg is left in the basket? -The last person took the basket with the last egg still inside.	Classroom
3	Go to AgExplorer.com and complete the Career Finder.	Classroom, SAE, FFA
4	Video journaling – Watch a short video clip, reflect in writing and share out. (https://www.youtube.com/watch?v=sc4HxPxNrZ0)	Classroom, SAE, FFA
5	What are the five food groups now recognized by the government? What shape is used to show the portions for these food groups now? -Dairy, fruits, grains, proteins, vegetables -The food groups are displayed in the “MyPlate” graphic.	Classroom, FFA
6	Which U.S. president (pictured below) was responsible for establishing the United States Department of Agriculture (USDA)? a. Abraham Lincoln b. Thomas Jefferson c. Alexander Hamilton d. Woodrow Wilson 	Classroom
7	On average, how many times per year does the average American family consume pizza? a. 10 b. 20 c. 30 d. 40	Classroom
8	What are the parts of the 3-Component Model of School-Based Agricultural Education? a. Animals, plants, foods b. Family, friends, agriculture c. Careers, classroom, SAE d. Classroom, SAE, FFA	Classroom, FFA, SAE
9	Identify five careers you could have in the Food Products and Processing Systems Career Focus Area. – Examples: Brand manager, extension agent, flavor technologist, graphic designer, food safety specialist, etc.	Classroom, FFA, SAE
10	Identify five colleges/universities that offer agriculture-related degrees. – Purdue University, University of Illinois, Kansas State, Texas Tech, University of Maryland, etc.	Classroom, FFA, SAE
11	What is the purpose and role of the United States Department of Agriculture (USDA)? “To provide leadership on food, agriculture, natural resources, rural development, nutrition, and related issues based on public policy, the best available science, and effective management.”	Classroom, FFA, SAE
12	What career area is the largest employer in the world? a. Medicine b. Manufacturing c. Education d. Agriculture	Classroom, FFA, SAE

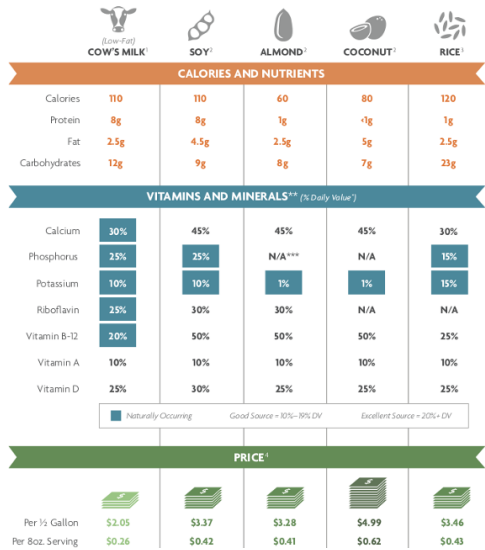
13	What is the minimum cooking temperature for poultry to ensure safety during consumption? a. 145° b. 150° c. 155° d. 160° e. 165°	Classroom, FFA, SAE
14	What is the minimum cooking temperature for pork to ensure safety during consumption? a. 145° b. 150° c. 155° d. 160° e. 165°	Classroom, FFA, SAE
15	What is the minimum cooking temperature for beef to ensure safety during consumption? a. 145° b. 150° c. 155° d. 160° e. 165°	Classroom, FFA, SAE
16	What country consumes more eggs per capita each year? a. Mexico b. USA c. France d. Portugal e. India	Classroom, FFA, SAE
17	How much protein does one eight-ounce glass of milk contain? a. 2 grams b. 4 grams c. 6 grams d. 8 grams e. 10 grams	Classroom, FFA, SAE
18	Hunger in America is a large concern. Approximately how many people in America are affected by hunger? a. 18 million b. 28 million c. 38 million d. 48 million e. 58 million	Classroom, FFA, SAE
19	When is National Pizza Day? a. January 10 b. February 9 c. April 21 d. May 6	Classroom
20	What well-known scientist (pictured here) discovered that when you heat liquids to high temperatures you can kill bacteria? HINT: This led to the process of pasteurization. a. Marie Curie b. Albert Einstein c. Fanny Farmer d. Louis Pasteur 	Classroom, FFA

21	Go to the Smash Your Food game and select two foods. Estimate their sugar, salt and oil composition. Then, "smash" the food to see how well you did. Record your results and be ready to share. (https://fit.webmd.com/teen/food/game/smash-your-food-game)	Classroom
22	Play the game Blastoff (https://www.fns.usda.gov/blastoff) and answer the following questions: 1. What did you select for breakfast, lunch, snack, dinner and activity? 2. Did you ever change your choices during the game? Why or why not? 3. What did you learn about food choice during this game?	Classroom
23	Complete a MyPlate food group nutrition quiz: https://www.choosemyplate.gov/quiz .	Classroom, FFA
24	You throw away the outside and cook the inside, then eat the outside and throw away the inside. What is it? -Corn on the cob	Classroom, FFA
25	What has to be broken before you can use it? -An egg	Classroom, FFA
26	Draw a picture of what the word <i>agriculture</i> means to you. You have five minutes to complete the drawing.	Classroom, FFA, SAE
27	The percent daily value recommendation on a Nutrition Facts Label is based on a _____ calorie diet. a. 1,000 b. 1,500 c. 2,000 d. 3,000	Classroom, FFA
28	In food science, labeling is an important component to keep food safe and allow the consumer to know how their food was processed and preserved. What is the name and purpose of the symbol shown here? a. Sunnol, sun drying b. Plantera, plant modification c. Pasteur, pasteurization d. Radura, irradiation	Classroom, FFA
29	Which of the following are considered "bad fats" in the everyday human diet? a. Monounsaturated b. Saturated c. Polyunsaturated d. Polarized	Classroom, FFA
30	What does USDA stand for? a. Unified States Department of Agriculture b. United Stated Department of Aquaculture c. United States Department of Agriculture d. Unknown Status for Domestic Agriculture	Classroom, FFA, SAE
31	Describe, in one to two sentences, the purpose and labeling requirements for this seal. -The USDA Organic seal means that the product meets the following USDA standards of an organic food product: (1) "produced without excluded methods," (2) "produced using allowed substances" and (3) "overseen by a USDA National Organic Program-authorized certifying agent."	Classroom, FFA, SAE

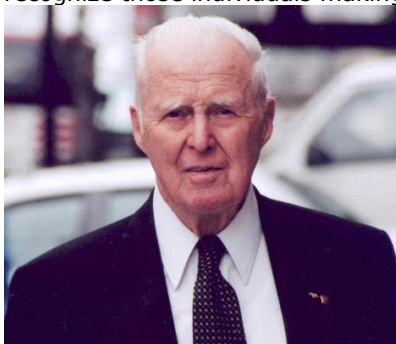


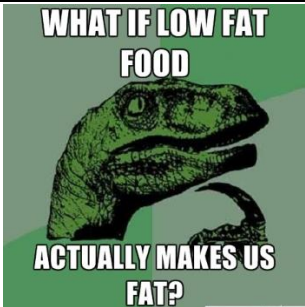
32	To make one pound of cheddar cheese, it requires approximately ____ pounds of milk. a. 8 b. 10 c. 22 d. 44	Classroom, FFA, SAE
33	According to the Food and Nutrition Board of the National Academy of Sciences, all people need at least ____ milligrams of calcium per day. a. 10 b. 100 c. 1,000 d. 1,000,000	Classroom, FFA
34	In 1984, President Ronald Reagan proclaimed a National Ice Cream Month. It has been celebrated annually every ____. a. June b. July c. August d. September	Classroom, FFA
35	Most dairy cows are milked two to three times per day. On average, a cow will produce ____ gallons of milk each day. a. 1 to 2 b. 8 to 9 c. 15 to 16 d. 20 to 21	Classroom, FFA, SAE
36	Which of the following flavors of ice cream is the most popular by sales volume? a. Raspberry b. Strawberry c. Vanilla d. Chocolate	Classroom, FFA, SAE
37	Farm Resource Regions  (Image can be found at https://www.ers.usda.gov/webdocs/publications/42298/32489_aib-760_002.pdf?v=42487.) What region do we live in, and what are some of our greatest commodities according to the map from the USDA?	
38	Utilizing the State Agricultural Facts map (https://www.agclassroom.org/teacher/ag_facts.cfm), identify and write down five interesting facts that you did not know about your state.	Classroom
39	Write a Tweet about how agriculture impacted you this weekend.	Classroom
40	Using Food-a-Pedia (https://www.supertracker.usda.gov/foodapedia.aspx), compare and contrast the nutrition facts of two foods you regularly consume.	Classroom

41	Watch the following video: https://youtu.be/h9KDUU6ZagQ. 1. What role does Bayer play in the agriculture industry? 2. How does science help Bayer find solutions to feed the growing population?	Classroom, FFA
42	Watch the following video: https://youtu.be/FxMHI5Gr2Yg. 1. What are scientists doing to help feed a growing population?	Classroom, FFA, SAE
43	What relationship exists between science and agriculture? Give two examples to illustrate your response.	Classroom, FFA, SAE
44	What is the purpose of a literature review in Agriscience research? - To support and show previously completed research that directly relates to your research.	Classroom, FFA, SAE
45	What is the purpose of the materials and methods section in an Agriscience report/research study? -To give readers a clear understanding of the process and materials required to complete the research. Materials and methods also allow the reader to know how to replicate the study.	Classroom, FFA, SAE
46	What is a hypothesis? Why is a hypothesis created when completing agricultural research? -A hypothesis is a brief statement of the anticipated results from a study being conducted. The hypothesis will be revisited in the results and conclusions section of the study write-up.	Classroom, FFA, SAE
47	What is the role/purpose of an abstract when writing an Agriscience research study? -The abstract is a brief summary of the purpose of the study, background information on the topic being studied, the materials/methods, the results and conclusions	Classroom, FFA, SAE
48	Head to the USDA website available at https://www.fsis.usda.gov/wps/portal/informational/aboutfsis/state-fact-sheets. Find your state and pull up the fact sheet. 1. What is the role of FSIS? 2. How many FSIS employees are in your state? 3. What agricultural commodity does your state excel in?	Classroom, FFA, SAE
49	What is the role of the Centers for Disease Control in our food supply? -"They work with state and local health departments and other federal agencies to investigate foodborne outbreaks."	Classroom, FFA, SAE
50	Which of the following are essential steps in maintaining safe food in your household? (CDC provided video: https://youtu.be/zE0ypKtFuWQ) a. Separate b. Clean c. Chill d. Cook e. All of the above	Classroom, FFA, SAE
51	Foodborne germs can infect our food when proper safety steps are not taken. Utilizing this website https://www.cdc.gov/foodsafety/symptoms.html, select a foodborne germ of interest. Design a billboard to advertise and inform the public about that foodborne germ.	Classroom, FFA, SAE

52	Which group of people are MOST "at-risk" to foodborne illnesses? a. Pregnant women b. Adults 65 years or older c. Children under the age of five d. People with diabetes, cancer or HIV/AIDS e. All of the above	Classroom, FFA, SAE
53	Which of the following foods caused the most illnesses between 2009 and 2015? a. Fish b. Dairy c. Chicken d. Vegetable row crops	Classroom, FFA, SAE
54	Find an impactful member of the agricultural community from history. Create a Tweet about the impact that person has had in the agriculture industry.	Classroom, FFA, SAE
55	Read the article "Climate Change Could Make Food Less Healthy," and write a three to five sentence response. https://www.sciencenewsforstudents.org/blog/analyze/analyze-climate-change-could-make-food-less-healthy	Classroom, FFA , SAE
56	Write a two-minute elevator speech about what agriculture is/means. This elevator speech should be written for a student at the elementary level that has never taken an agriculture class.	Classroom, FFA, SAE
57	1. What is your favorite after school snack? 2. Draw a flow chart to illustrate how that snack went from the farm to your plate.	Classroom, FFA, SAE
58	What's in your glass? Choices are great, but they can be overwhelming. This at-a-glance chart can help you understand what's in your 8-ounce glass of milk.  (Image can be found at https://www.nationaldairycouncil.org/content/2015/whats-in-your-glass.) You and a friend are at lunch when you open a bottle of chilled milk. Your friend is consuming chilled almond milk. Which drink is a healthier choice? Why?	Classroom, FFA
59	Why does swiss cheese have holes? a. A mouse nibbled through the cheese. b. Carbon dioxide bubbles formed in the cheese. c. Carbon monoxide bubbles formed in the cheese. d. Holes are essential to help with the curing process and add to the tangy flavor.	Classroom, FFA

60	The Farmer's Share Of The Retail Dollar Did you know that farmers and ranchers receive only 15.67 cents of every food dollar that consumers spend on food at home and away from home? According to USDA, off farm costs including marketing, processing, wholesaling, distribution and retailing account for more than 80 cents of every food dollar spent in the United States.  (Image can be found at https://nfu.org/.) Where does the money go when you purchase a food product at the store?	Classroom, FFA, SAE
61	 1. What impact does turkey production have in the U.S.? 2. How has turkey production impacted you?	Classroom, FFA, SAE
62	Using the Coalition for Safe Affordable Food state activity website (http://coalitionforsafeaffordablefood.org/state-action-center/), create a Tweet to highlight a current event in your state.	Classroom, FFA, SAE
63	Watch the video "World Without Food Science." (http://u7.ift.org/knowledge-center/learn-about-food-science/world-without-food-science.aspx) Write a list of five thoughts/reactions you experienced while watching the video.	Classroom, FFA, SAE
64	Watch the video "Day in the Life of a Disney Food Scientist." (http://u7.ift.org/Knowledge-Center/Learn-About-Food-Science/Day-In-The-Life/Disney-and-IFT.aspx) As you watch the video, create a flow chart that maps out the day of a Disney food scientist.	Classroom, FFA, SAE
65	Watch the video "Michele Perchonok: Food Scientist at NASA." (http://www.ift.org/knowledge-center/learn-about-food-science/day-in-the-life/michele-perchonok.aspx) What role does a food scientist play in developing foods and food packaging for astronauts?	Classroom, FFA, SAE

66	1. Why are we able to buy milk that does not have to be refrigerated? 2. What benefit does this technology serve for meeting the global food supply needs? Watch the video "Brian Thane: Food Packaging Professional" (http://www.ift.org/knowledge-center/learn-about-food-science/day-in-the-life/food-packaging-professional.aspx), and create a three to five sentence response to answer the questions listed above.	Classroom, FFA, SAE
67	This scientist not only was awarded the Nobel Peace Prize for his work in addressing hunger globally, but he also developed the World Food Prize to recognize those individuals making an impact in the world of agriculture.  a. George Washington Carver b. John Deere c. Phillip Nelson d. Dr. Norman Borlaug	Classroom
68	Using the World Food Prize Laureates page, find a laureate of interest to you and write a two to three sentence blog post about their accomplishments and agricultural impact. https://www.worldfoodprize.org/index.cfm?nodeID=90971&audienceID=1	Classroom, FFA, SAE
69	Using two to three sentences, explain why and how should you advocate for hunger.  (Image can be found at http://alliancetoendhunger.org/aeh-playbook/.)	Classroom, FFA, SAE

70	Is this true or not true? Why or why not?		Classroom
71	On the Feeding America "Hunger is Closer than you Think" website (http://www.feedingamerica.org/hunger-in-america/), select your state. Draw a picture that accurately represents what your state looks like regarding hunger.		Classroom, FFA, SAE
72	Which of the following should you NEVER do to bagels or any bread product if you want to maintain freshness? a. Freeze b. Refrigerate c. Let sit on the counter d. Set in the pantry		Classroom
73	How many U.S. states grow wheat? a. 22 b. 32 c. 42 d. 52		Classroom
74	Every state in the U.S. produces honey. Which state leads in honey production? a. California b. Florida c. Montana d. North Dakota		Classroom, FFA, SAE
75	Coffee is a popular choice for many Americans and can have some health benefits! Which of the following issues are decreased when a person is a long-term coffee drinker? a. Chron's Disease b. Arthritis c. Type II Diabetes d. Common cold		Classroom, FFA
76	Select a career focus area of interest to you (use AgExplorer.com) and create a Tweet about that focus area.		Classroom, FFA, SAE
77	Identify as many agriculture courses that are offered in your school as you can.		Classroom

INSPIRATIONAL QUOTES

	Question	3-Component Model Category
1	"Intelligence is the ability to adapt to change." –Stephen Hawking 1. What does this quote mean? 2. Do you agree with the quote? 3. Does this quote still hold relevance today?	Classroom, SAE, FFA
2	"It is better to fail in originality than to succeed in imitation." –Herman Melville 1. What does this quote mean? 2. How does this quote apply to you?	Classroom, FFA, SAE
3	"Stop chasing the money and start chasing the passion." –Tony Hsieh 1. What does this quote mean? 2. How does this quote apply to you?	Classroom, FFA, SAE
4	"The real test is not whether you avoid this failure, because you won't. It's whether you let it harden or shame you into inaction, or whether you learn from it; whether you choose to persevere." –Barack Obama 1. What does this quote mean? 2. How does this quote apply to you?	Classroom, FFA, SAE
5	"If you really want to do something, you'll find a way. If you don't, you'll find an excuse." –Jim Rohn 1. What does this quote mean? 2. How does this quote apply to you?	Classroom, FFA, SAE
6	"If your actions inspire others to dream more, learn more, do more and become more, you are a leader." –John Quincy Adams 1. What does this quote mean? 2. How does this quote apply to you?	Classroom, FFA, SAE
7	"If you do what you have always done, you'll get what you've always gotten." –Tony Robbins 1. What does this quote mean? 2. How does this quote apply to you?	Classroom, FFA, SAE
8	"I've missed more than 9,000 shots in my career. I've lost almost 300 games. Twenty-six times I've been trusted to take the game-winning shot and missed. I've failed over and over and over again in my life. And that is why I succeed." –Michael Jordan 1. What does this quote mean? 2. How does this quote apply to you?	Classroom, FFA, SAE
9	"You don't have to move mountains. You will change the world just by being a warm, kind-hearted human being." –Anita Krizzan 1. Explain what this quote means to you. 2. How are you going to take this quote and apply it in your life? Give an example.	Classroom, FFA, SAE
10	"There's no mountain I can't climb. There's no tower too high; no plane that I can't fly. What do I gotta do to get through to you, to show you there ain't nothing I can't take this chainsaw to." –Eminem 1. What does this quote mean to you? 2. How does this quote apply to you?	Classroom, FFA, SAE
11	"Be the change you want to see in the world." –Mahatma Ghandi 1. What does this quote mean to you? 2. How does this quote apply to you?	Classroom, FFA, SAE
12	"No one can make you feel inferior without your consent." –Eleanor Roosevelt 1. What does this quote mean? 2. What role could this quote play in your school?	Classroom, FFA, SAE

13	"I've learned that people will forget what you said, people will forget what you did, but people will never forget how you made them feel." –Maya Angelou 1. What does this quote mean? 2. What role could this quote play in your school?	Classroom, FFA, SAE
14	"We are all in the gutter, but some of us are looking at the stars." –Oscar Wilde 1. What does this quote mean? 2. How can you use this quote in your life?	Classroom, FFA, SAE
15	"I have not failed. I've just found 10,000 ways that won't work." –Thomas A. Edison 1. What does this quote mean? 2. How can you use this quote in your life?	Classroom, FFA, SAE
16	"It takes a great deal of bravery to stand up to our enemies, but just as much to stand up to our friends." –J.K. Rowling 1. What does this quote mean? 2. How does this quote apply to the current world around us?	Classroom, FFA, SAE
17	"If you can't explain it to a six-year-old, you don't understand it yourself." –Albert Einstein 1. What does this quote mean to you? 2. How can you apply this to all the tasks you have to complete every day?	Classroom, FFA, SAE
18	"It is impossible to live without failing at something, unless you live so cautiously that you might as well not have lived at all — in which case, you fail by default." –J.K. Rowling 1. What does this quote mean to you? 2. What truth does this quote have? Why?	Classroom, FFA, SAE
19	"Talent hits a target no one else can hit. Genius hits a target no one else can see." –Arthur Schopenhauer 1. What does this quote mean to you? 2. How can you apply this quote to your life?	Classroom, FFA, SAE
20	"We delight in the beauty of the butterfly, but rarely admit the changes it has gone through to achieve that beauty." –Maya Angelou 1. What does this quote mean to you? 2. How does this quote apply to your current life?	Classroom, FFA, SAE

LEADERSHIP AND FFA

	Question	3-Component Model Category
1	What are the parts of the 3-Component Model of School-Based Agricultural Education? a. Animals, plants, foods b. Family, friends, agriculture c. Careers, classroom, SAE d. Classroom, SAE, FFA	FFA, Classroom, SAE
2	In what year was the Future Farmers of America formed? a. 1926 b. 1928 c. 1930 d. 1932	FFA, Classroom
3	The FFA Creed is an important five-paragraph statement that exemplifies the values of the National FFA Organization. Who wrote the FFA Creed? a. Erwin Milton (E.M.) Tiffany b. Harry Oscar Sampson c. Henry C. Groseclose d. Dr. Charles Homer Lane	FFA, Classroom
4	Which organization was developed in 1935 to serve African American boys enrolled in vocational agriculture? a. Future Farmers of America b. New Farmers of America c. Next Generation of Farmers in America d. National Association of Agriculturalists	FFA, Classroom
5	In what year were females allowed membership in FFA? a. 1942 b. 1957 c. 1969 d. 1971	FFA, Classroom
6	Where was the first national convention held? a. Indianapolis, Ind. b. Kansas City, Mo. c. Louisville, Ky. d. Nashville, Tenn.	FFA, Classroom
7	If you could be any fruit, what fruit would you be and why?	FFA, Classroom
8	What is the FFA salute? a. The national anthem b. Premier leadership, personal growth, career success c. The Pledge of Allegiance d. A moment of silence	FFA, Classroom
9	What does the cross section of the ear of corn represent in the FFA emblem? a. Unity b. Freedom c. Knowledge d. Progress	FFA, Classroom
10	What does the eagle symbolize in the FFA emblem? a. Unity b. Freedom c. Knowledge d. Progress	FFA, Classroom

11	Which part of the FFA emblem represents "knowledge"? a. Ear of corn b. Plow c. Rising Sun d. Owl	FFA, Classroom
12	E. M. Tiffany wrote the FFA creed to represent the values of the FFA. Create your personal creed? How does this represent your values?	FFA, Classroom
13	What are the official colors of the FFA? a. National blue and corn gold b. Navy blue and colonial red c. Corn gold and sun orange d. Whimsical white and soybean green	FFA, Classroom
14	True or False: To receive your Greenhand degree you MUST have your Discovery degree. -False	FFA, Classroom
15	Identify three requirements you must meet to receive your Greenhand degree. -Active FFA member -Satisfactory SAE plans -Can explain the creed, motto, salute and mission -Can explain the emblem and colors -Can demonstrate knowledge of the Code of Ethics and proper jacket use -Can demonstrate understanding of the history, chapter constitution and POA -Has access to the FFA Manual and Student Handbook - Submit a written application for the degree	FFA, Classroom
16	What is the highest degree you can earn through the National FFA Organization? a. Greenhand degree b. Discovery degree c. State degree d. American degree	FFA, Classroom
17	How many medals can you have displayed on your FFA jacket at one time? a. One b. Two c. Three d. As many as you want	FFA, Classroom
18	What week is used each year to celebrate National FFA Week? a. First week of February b. The week of George Washington's birthday c. The week the National FFA Organization was created d. The National FFA Organization announces the date each year to match the Program of Activities.	FFA, Classroom
19	How many taps of the gavel calls an official FFA meeting to order? a. One b. Two c. Three d. Four	FFA, Classroom
20	When an official FFA meeting is in progress, who has the authority to break a tie during a vote? a. President b. Advisor c. Secretary d. Vice President	FFA, Classroom

21	FFA meetings proceed by using parliamentary law. Why? - Maintains a streamlined focus - Gives everyone a chance to participate - Allows majority to rule - Protect the rights of those in the minority All of the above	FFA, Classroom
22	What is the purpose of an amendment during an official FFA meeting? - A member does not agree with the main motion. - A member wants the main motion to fail. - A member was ignored during the meeting. A member would like to try to improve a main motion.	FFA, Classroom
23	Develop and write a proper main motion. -Example: (Be recognized) Mr./Mme. President, I move to donate \$300 to the local food pantry.	FFA, Classroom
24	Identify a leadership conference you could attend through the National FFA Organization and why you selected that conference. -212° -360° -Washington Leadership Conference (WLC) -New Century Farmer Conference	FFA, Classroom
25	Where is the National FFA Organization headquarters located? -Indianapolis, Ind.	FFA, Classroom
26	How many National FFA Officers are elected each year? Six - Seven - Eight - Nine	FFA, Classroom
27	What strategies could you employ as an FFA chapter to be more inclusive of all FFA members? Identify two. -Get to know each other. -Create a shared vision. -Define team roles. -Create a team identity. -Participate in team building activities. -Create a sense of ownership. -Practice good communication. -Always work to improve.	FFA, Classroom
28	Identify two ways you can advocate for agriculture. - Example: Utilize social media in a professional manner	FFA, Classroom
29	What is the purpose of participating in a career development event (CDE) or leadership development event (LDE)? - To win - To achieve local recognition - To get recognized by community leaders To apply skills and concepts learned within the classroom	FFA, Classroom
30	Identify three career development events (CDEs) that you can compete in through your chapter. -Agricultural communications, agricultural sales, agricultural technology and mechanical systems, agronomy, dairy cattle evaluation and management, environmental and natural resources, farm and agribusiness management, floriculture, food science and technology, forestry, horse evaluation, livestock evaluation, marketing plan, meats evaluation and technology, milk quality and products, nursery/landscape, poultry evaluation, veterinary science	FFA, Classroom

31	Identify three leadership development events (LDEs) that you can compete in through your chapter. -Agricultural issues forum, conduct of chapter meetings, creed speaking, employment skills, extemporaneous public speaking, parliamentary procedure, prepared public speaking	FFA, Classroom
32	In which career development event (CDE) do members work with a local agricultural company to select a product to promote? - Marketing plan CDE	FFA, Classroom
33	In which career development event (CDE) do members exhibit knowledge in working with large and small animals? - Veterinary science	FFA, Classroom
34	In which leadership development event (LDE) do members have the opportunity to think on their feet by writing and preparing a speech in a limited amount of time? - Extemporaneous public speaking	FFA, Classroom
35	In which career development event (CDE) would you like to participate? Why? -Answers will vary	FFA, Classroom
36	In which leadership development event (LDE) would you like to participate? Why? -Answers will vary	FFA, Classroom
37	I have a great community service project idea but no money to fund my project. What is my best option? a. Hope someone donates money b. Forget the project c. Ask for money from my school d. National FFA Living to Serve Grant	FFA, SAE, Classroom
38	What is the difference between a bachelor's degree, a master's degrees and a doctorate?	Classroom, FFA, SAE
39	How do you handle stress?	Classroom, FFA, SAE
40	List three of your greatest weaknesses, and explain how you are working through them.	Classroom, FFA, SAE
41	What is your dream job? Why?	Classroom, FFA, SAE
42	If you were an animal, what would you be and why?	Classroom, FFA, SAE
43	Identify five colleges/universities that offer agriculture-related degrees.	Classroom, FFA, SAE
44	Go through the "What Kind of Leader Are You?" flow chart available at https://azumazu.com/blog/leadership-and-managing/what-kind-of-leader-are-you/ . Identify what type of leader you are and explain why you think you are in that category.	Classroom, FFA, SAE
45	Agricultural communications practice editing: determine and correct the error in the following sentence, if any exists. "Wildfires have, unfortunately, proven once again to be <u>the west's natural disasters</u> ," Wayden said. "This is urgent business that requires an equally urgent and comprehensive response." - Capitalize West	Classroom, FFA, SAE
46	Agricultural communications practice editing: determine and correct the error in the following sentence, if any exists. Currently, states can receive hazard mitigation funding to lessen the effects of a future disaster only <u>after the President declares</u> a major disaster. - Don't capitalize president	Classroom, FFA, SAE

47	Agricultural communications practice editing: determine and correct the error in the following sentence, if any exists. However, unlike <u>huricanes</u> , floods or tornados, most wildfires do not receive a major disaster declaration. -Spelling	Classroom, FFA, SAE
48	Agricultural communications practice editing: determine and correct the error in the following sentence, if any exists. "I have seen firsthand the impact that catastrophic wildfires have on our <u>communities</u> ," Bennet said. " <u>Folks</u> impacted by wildfire need assistance long after the flames stop burning." -Correct	Classroom, FFA, SAE
49	Agricultural communications practice editing: determine and correct the error in the following sentence, if any exists. The IAFC said it would send some of <u>its members to congress</u> to publicly voice support for the legislation. -Capitalize Congress	Classroom, FFA, SAE
50	When selling a product to a potential customer it is important to ask questions to determine their needs and concerns. Provide two open-ended questions and two closed-ended questions that could be asked of a potential customer.	Classroom, FFA, SAE
51	When confronted by a dominating customer, it is a good sales technique to do which of the following? a. Let the customer do all the talking b. Present your information quickly c. Make them feel important by nodding in agreement d. All of the above	Classroom, FFA, SAE
52	Which of the following motions does not need to be seconded? a. Raise a question of privilege b. Recess c. Main motion d. Postpone indefinitely	Classroom, FFA
53	An FFA member who is speaking about a motion after they have been assigned the floor cannot be interrupted by a a. Point of order. b. Question of privilege. c. Parliamentary inquiry. d. Motion to amend.	Classroom, FFA
54	Draw a pig on a piece of paper. All the details are up to you. You have five minutes. -Pig Drawing Personality Test Results (based on drawing the pig in a certain way): Drawing is near the top of the paper = tendency to be positive/optimistic; Drawing is near the middle = tendency to be a realist; Drawing is near the bottom: tendency to be pessimistic, possible negative behaviors; Drawing is facing left = believes in tradition and being friendly, good at remembering dates; Drawing is facing right = innovative/active, can forget dates easily; Drawing is facing front = direct, does not avoid confrontations; Drawing has lots of details = analytical; Drawing has few details = emotional and focuses on the larger picture; Drawing has less than four legs showing = person is living through a major period of change; Drawing has four legs showing = secure and stick to ideals, stubborn; Pig's ear size = the bigger the ears the better listener the person is; Pig tail length= the longer the tail the more intelligent the person is.	Classroom, FFA
55	If you had to throw out all but one of your possessions, which one would you keep and why?	Classroom
56	What is the purpose of a career development event (CDE) and a leadership development event (LDE)?	Classroom, FFA

57	In which of the following leadership development events (LDE) do you research, prepare and practice a speech in a short period of time? a. Creed speaking b. Extemporaneous public speaking c. Prepared public speaking d. Talent	Classroom, FFA
58	What skills could/would you obtain from competing in the agricultural sales career development event (CDE)?	Classroom, FFA, SAE
59	In which career development event (CDE) do participants often create a floral arrangement? a. Nursery/landscape b. Horticulture c. Floriculture d. Forestry	Classroom, FFA
60	Find an impactful member of the agricultural community from history. Create a Tweet about the impact that person has had in the agriculture industry.	Classroom, FFA, SAE
61	Do you believe that someone can be a born leader? Why or why not? Provide an example.	Classroom, FFA, SAE
62	Write a two-minute elevator speech about what agriculture is/means. This elevator speech should be written for a student at the elementary level that has never taken an agriculture class.	Classroom, FFA, SAE
63	What does it mean to "lead by example"?	Classroom, FFA, SAE
64	Think about a time you were chosen to lead a group or a team. Describe how you felt and the process you went through to be a successful leader.	Classroom, FFA, SAE
65	1. What are three of your greatest strengths and three of your greatest weaknesses? 2. How does each contribute to your leadership style?	Classroom, FFA, SAE
66	Which of the following is NOT part of the FFA Code of Ethics? a. Dress neatly and appropriately b. Be courteous, honest and fair with others c. Conduct a supervised agricultural experience (SAE) program d. Participate in a career development or leadership development event	Classroom, FFA, SAE
67	Which of the following is NOT a position on the FFA officer team? a. President b. Sentinel c. Recorder d. Secretary	Classroom, FFA
68	What percentage of state FFA officers are female? a. 27% b. 41% c. 64% d. 72%	Classroom, FFA
69	What percentage of state FFA officers have, or plan to pursue, the highest FFA degree, the American FFA Degree? a. 52% b. 61% c. 87% d. 96%	Classroom, FFA, SAE

70	What percentage of state FFA officers live on farms? a. 45% b. 50% c. 60% d. 70%	Classroom, FFA, SAE
71	Which of the following is NOT a requirement to become a state FFA officer? a. State degree b. A minimum of two years of FFA membership c. Must have completed three years of agricultural education d. Must have an SAE -Students only need two years/360 hours of agricultural education courses.	Classroom, FFA, SAE
72	Which of the following is NOT a part of FFA Official Dress? a. FFA bow tie b. Black closed-toe shoes c. Official blue FFA jacket d. FFA scarf	Classroom, FFA
73	Which degree, or level of recognition, can you achieve in the seventh or eighth grade? a. Chapter b. State c. Greenhand d. Discovery	Classroom, FFA
74	Organize the different degree levels in order of when a member can receive them, starting with the first degree. Greenhand degree, State degree, Discovery degree, American degree, Chapter Degree (1) Discovery degree (2) Greenhand degree (3) Chapter degree (4) State degree (5) American degree	Classroom, FFA
75	Which of the following is NOT a part of the needed FFA official equipment? a. One gavel and block b. One official FFA flag c. One scrapbook d. Ten or more Official FFA Manuals -Seven or more Official FFA Manuals are needed	Classroom, FFA
76	Which of the following is not a part of an FFA Program of Activities (POA)? a. Advisor development b. Community development c. Chapter development d. Student development	Classroom, FFA, SAE
77	Which of the following is the name of the official FFA magazine sent to members? a. <i>Blue Jackets, Gold Standards</i> b. <i>Step Up, Stand Out</i> c. FFA New Horizons d. <i>The Rising Sun</i>	Classroom, FFA, SAE
78	1. During the FFA opening ceremony, who is stationed by the owl? a. President b. Secretary c. Vice President d. Advisor 2. Why is this person "so stationed"? -Represents knowledge and wisdom	Classroom, FFA, SAE

79	In what FFA contest do you develop a question, perform background research, perform an experiment and then report your results? a. Floriculture CDE b. Agriscience Fair c. Veterinary Science CDE d. Natural Resources CDE	Classroom, FFA, SAE
80	Which of the following is NOT a recognized Agriscience Fair category? a. Social science b. Plant systems c. Environmental services d. Global impact systems	Classroom, FFA, SAE
81	Read "On the Record: Chris Johns" in <i>FFA New Horizons</i> , https://www.ffanewhorizons.org/2017/08/30/on-the-record-chris-johns/ . Write a Facebook post about Chris John's experiences and how FFA helped him to find his passion.	Classroom, FFA, SAE
82	What country do the National FFA Officers travel to each year during their year of service? a. China b. Japan c. Africa d. New Zealand	Classroom, FFA, SAE
83	In the official FFA opening ceremony, the reporter speaks about the national organization "reaching from the state of Alaska to Puerto Rico and from the state of Maine to Hawaii." However, in 2017, it was recommended that Puerto Rico be changed to which location to be more inclusive of all membership? a. Virgin Islands b. Bermuda c. San Bernadino d. Croatia	Classroom, FFA, SAE
84	Approximately how many miles does a national FFA officer travel during his or her year of service? a. 30,000 b. 50,000 c. 80,000 d. 100,000	Classroom, FFA, SAE
85	In what year was the blue corduroy jacket approved as the official jacket of the National FFA? a. 1917 b. 1929 c. 1930 d. 1933	Classroom, FFA, SAE
86	How many proficiency award areas exist? a. 23 b. 39 c. 47 d. 52	Classroom, FFA, SAE
87	What act established vocational agriculture courses? a. Groseclose Act b. Smith-Hughes Act c. Tiffany Act d. Roosevelt Act	Classroom, FFA
88	Approximately how many days do National FFA Officers spend on the road? a. 100 b. 275 c. 300 d. 345	Classroom, FFA, SAE

89	Approximately how many plane rides do National FFA Officers take during their year of service? a. 25 b. 50 c. 75 d. 100	Classroom, FFA, SAE
90	Approximately how many workshops do National FFA Officers give during their year of service? a. 20 b. 40 c. 60 d. 80	Classroom, FFA, SAE
91	Approximately how many speaking engagements will National FFA Officers participate in during their year of service? a. 15 b. 45 c. 87 d. 110	Classroom, FFA
92	Approximately how many FFA members does one national FFA officer have the opportunity to impact during his or her year of service? a. 1 out of 6 members b. 1 out of 34 members c. 1 out of 53 members d. 1 out of 101 members	Classroom, FFA
93	How many states, collectively, will the National FFA Officers have the opportunity to visit during their year of service? a. 23 b. 37 c. 41 d. 52	Classroom, FFA
94	How many jackets does each national FFA officer receive during their year of service? a. 2 b. 4 c. 6 d. 8	Classroom, FFA
95	When are National FFA Officers elected? a. During their state convention b. During WLC c. During National FFA Week d. During National FFA Convention	Classroom, FFA, SAE
96	Read "On the Record: Easton Corbin" in <i>FFA New Horizons</i> , https://www.ffanewhorizons.org/2017/02/24/what-i-know-easton-corbin/ . Write a Facebook post about Easton Corbin's experiences and how FFA helped him to find his passion.	Classroom, FFA, SAE
97	Read "On the Record: Ray Starling" in <i>FFA New Horizons</i> , https://www.ffanewhorizons.org/2017/03/14/qa-ray-starling-special-assistant-to-the-president/ . Write a Facebook post about Ray Starling's experiences and how FFA helped him to find his passion.	Classroom, FFA, SAE
98	Give two examples of questions you should be prepared to ask during or after a job interview.	Classroom, FFA

99	What is your favorite activity that your FFA chapter does each year? Why?	FFA
100	If you could change the FFA Creed, what would you change and why?	Classroom, FFA
101	Do you consider yourself a leader? Why or why not?	Classroom, FFA, SAE
102	Identify three key components of a good leader.	Classroom, FFA, SAE
103	Identify a great leader in your life and explain why you see them as a leader.	Classroom, FFA, SAE
104	What FFA officer is stationed by the emblem of Washington? a. President b. Vice President c. Reporter d. Treasurer	Classroom, FFA
105	What FFA officer is stationed by the rising sun? a. President b. Vice President c. Reporter d. Treasurer	Classroom, FFA
106	What FFA officer is responsible for keeping the room comfortable during FFA meetings? a. President b. Sentinel c. Secretary d. Treasurer	Classroom, FFA
107	What FFA officer is responsible for keeping the minutes of all FFA meetings? a. President b. Sentinel c. Secretary d. Treasurer	Classroom, FFA
108	Finish the statement: "An FFA member is ..."	Classroom, FFA
109	Finish the statement: "When I grow up I want to be a(n) ..." Explain your answer.	Classroom, FFA, SAE
110	What is the FFA mission? a. The national anthem b. Premier leadership, personal growth, career success c. The Pledge of Allegiance d. A moment of silence	Classroom, FFA
111	Identify five components of FFA Official Dress. Official FFA jacket zipped to the top Black slacks and black socks/nylons or black skirt and black nylons White collared blouse or shirt Official FFA tie or scarf Black dress shoes with closed heel and toe	Classroom, FFA
112	Identify three qualities of a good interview. Examples: Early, dressed appropriately, etc.	Classroom, FFA, SAE
113	Identify three attire components you should NEVER wear to a job interview. Examples: Short skirt, shirts with words, heavy perfume, etc.	Classroom, FFA, SAE

114	Who is your role model and why?	Classroom, FFA, SAE
115	Who is your mentor and why?	Classroom, FFA, SAE
116	Take the following personality quiz to see which animal you most closely identify with: https://kids.nationalgeographic.com/games/quizzes/which-pet/ . 1. Do you think that the quiz was accurate? 2. Why or why not? Write a minimum of two sentences.	Classroom, FFA, SAE
117	Complete the following quiz: https://well.blogs.nytimes.com/2015/03/26/take-the-habit-personality-quiz/ . 1. Do you think the results are accurate? 2. Why or why not?	Classroom, FFA, SAE
118	Take the money management quiz: https://sorted.org.nz/tools/money-personality-quiz . 1. Do you think the results are accurate? 2. How can this insight into your money management skills help you in your SAE?	Classroom, SAE
119	Take this career quiz: https://www.goconstruct.org/personality-quiz/index.htm . 1. Which careers are you most suited for in construction? 2. Is this result accurate? 3. Why or why not?	Classroom, SAE
120	Take the following color quiz: https://365tests.com/personality-tests/free-color-personality-test/ . 1. Do you think the results are accurate? 2. Why or why not? 3. How will knowing this about your personality help you to become a better leader?	Classroom, FFA, SAE
121	What percentage of state FFA officers take a leave of absence from school during their year of service? a. 10% b. 20% c. 30% d. 40%	Classroom, FFA
122	Approximately how many state FFA Officers are there across the country? a. 100 b. 275 c. 375 d. 400	Classroom, FFA
123	How many state FFA officers are selected each year to travel abroad? a. 20 b. 50 c. 75 d. 105	Classroom, FFA
124	Approximately how many students are a part of the National FFA Organization? a. 350,000 b. 550,000 c. 650,000 d. 750,000	Classroom, FFA

125	Approximately how many FFA chapters are there in the United States? a. 3,000 b. 4,500 c. 6,700 d. 8,500	Classroom, FFA
126	In which National FFA event do members compete by excelling in their job interview skills? a. Livestock evaluation b. Creed speaking c. Extemporaneous public speaking d. Employment skills	Classroom, FFA
127	Approximately how much money is awarded through the National FFA Scholarship Program each year? a. \$576,000 b. \$1.2 million c. \$2.7 million d. \$3.2 million	FFA
128	Once you graduate high school, how can you still be involved in FFA? a. Receive scholarships b. Be a part of an alumni chapter c. Donate time, money or resources d. All of the above	FFA
129	Watch the video available at https://youtu.be/hKEnU35R4uo , and respond to the following questions: (1) What is diversity and inclusion? (2) What does diversity and inclusion look like at your school and how can you improve it?	Classroom, FFA, SAE

NATURAL RESOURCE AND ENVIRONMENTAL SERVICES SYSTEMS CAREER FOCUS AREA

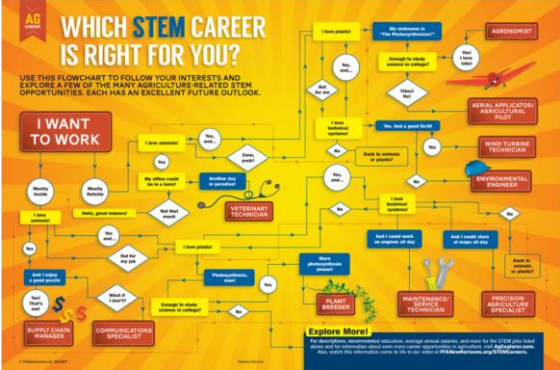
	Question	3-Component Model Category
1	Go to AgExplorer.com and complete the Career Finder.	Classroom, SAE, FFA
2	Video journaling – Watch a short video clip, reflect in writing and share out. (https://www.youtube.com/watch?v=sc4HxPxNrZ0)	Classroom, SAE, FFA
3	Video journaling – Watch a short video clip, reflect in writing and share out. (https://www.youtube.com/watch?v=2pXuAw1bSQo)	Classroom, SAE, FFA
4	Video journaling – Watch a short video clip, reflect in writing and share out. (https://www.youtube.com/watch?v=6xINyWPpB8)	Classroom, SAE, FFA
5	How many people does one U.S. farm feed? a. 56 people b. 165 people c. 202 people d. 233 people	Classroom
6	Which state has the most farms? a. Missouri b. Iowa c. Oklahoma d. Texas	Classroom
7	True or False — The majority of farms in the U.S. are owned by corporations. Explain your answer in one to two sentences.	Classroom
8	What state has the largest number of aquaculture farms? a. California b. North Carolina c. Louisiana d. Florida e. Mississippi	Classroom
9	Approximately how much of the U.S. is covered in trees? a. 1/8 b. 1/4 c. 1/3 d. 2/3	Classroom
10	Which of the following is a term used in the forestry industry to describe the segment that works with maintenance and cultivation of trees? e. Vermiculture f. Silviculture g. Parasitology h. Viticulture	Classroom, SAE
11	Develop a list of everyday items that are produced from animal and plant byproducts. You have two minutes. Manufacturing: adhesives, lubricants, solvents Construction: lumber, paint, brushes, tar paper, tool handles Personal Care Items: shampoo, soap, cosmetics, lotions, toothpaste Healthcare: pharmaceuticals, surgical sutures, X-ray film, latex gloves Transportation: biofuels, lubricants, antifreeze, tires, upholstery Sports: uniforms, baseball bats, leather equipment Printing: ink, paper Education: crayons, textbooks, chalk, desks, pencils Entertainment: strings for musical instruments	Classroom

12	Biodiesel is a fuel source created from which common agricultural commodity? a. Corn b. Soybeans c. Wheat d. Sorghum	Classroom
13	In what year did John Deere begin manufacturing the steel plow? a. 1791 b. 1802 c. 1837 d. 1868	Classroom
14	Identify five careers you could have in the Biotechnology Systems Career Focus Area. -Examples: Animal geneticist, biostatistician, embryologist, dispatcher, etc.	FFA, SAE, Classroom
15	Identify five careers you could have in the Environmental Services Systems Career Focus Area. -Examples: Climate change analyst, environmental engineer, formulation chemist, nematologist, etc.	FFA, SAE, Classroom
16	Identify five careers you could have in the Natural Resource Systems Career Focus Area. -Examples: Arborist, conservationist, ecologist, forester, geologist, etc.	FFA, SAE, Classroom
17	Which U.S. President (pictured here) was known as a conservationist for his work with the National Parks system? a. George Washington b. Abraham Lincoln c. John F. Kennedy d. Teddy Roosevelt 	Classroom
18	Which U.S. President (pictured here) is known for proposing and beginning the Environmental Protection Agency (EPA)? a. George Washington b. Abraham Lincoln c. John F. Kennedy d. Richard Nixon 	Classroom
19	What career area is the largest employer in the world? a. Medicine b. Manufacturing c. Education d. Agriculture	Classroom, FFA, SAE
20	What type of tree can you carry in your hand? -A palm	Classroom, FFA
21	You throw away the outside and cook the inside, then eat the outside and throw away the inside. What is it? -Corn on the cob	Classroom, FFA
22	Draw a picture of what the word <i>agriculture</i> means to you. You have five minutes to complete the drawing.	Classroom, FFA, SAE

23	 Write down five words that come to mind when you look at this picture.	Classroom, FFA, SAE
24	One acre contains how many square feet? a. 34,650 b. 43,560 c. 43,600 d. 36,350	Classroom, FFA, SAE
25	The study of insects and their relationship with the forest is called ____. a. Dendrology b. Forest pathology c. Forest hydrology d. Forest entomology	Classroom, FFA, SAE
26	Which of the following is the MOST significant reason species have become threatened or endangered? a. Controlled as pests b. Pesticides c. Illegal killing d. Landscape alteration	Classroom, FFA, SAE
27	 (Image can be found at https://www.ers.usda.gov/webdocs/publications/42298/32489_aib-760_002.pdf?v=42487). What region do we live in, and what are some of our greatest commodities according to the map from the USDA?	Classroom
28	Utilizing the State Agricultural Facts map (https://www.agclassroom.org/teacher/ag_facts.cfm), identify and write down five interesting facts that you did not know about your state.	Classroom
29	Write a Tweet about how agriculture impacted you this weekend.	Classroom
30	Find a natural resources resource/publication (https://www.fs.usda.gov/naspf/resources-and-publications) of interest to you and determine the following: (1) What is the issue? (2) accomplishments/program status and (3) future direction. Be ready to share!	Classroom, FFA, SAE

31	What is the purpose and role of the U.S. Forest Service?	Classroom, FFA, SAE
32	Watch the following video: https://youtu.be/B_WSLbw3ApA . What benefits are there to being employed in agriculture? Identify three.	Classroom, FFA, SAE
33	What relationship exists between science and agriculture? Give two examples to illustrate your response.	Classroom, FFA, SAE
34	What is the purpose of a literature review in agriscience research? -To support and show previously completed research that directly relates to your research.	Classroom, FFA, SAE
35	What is the purpose of the materials and methods section in an agriscience report/research study? -To give readers a clear understanding of the process and materials required to complete the research. Materials and methods also allow the reader to know how to replicate the study.	Classroom, FFA, SAE
36	What is a hypothesis? Why is a hypothesis created when completing agricultural research? -A hypothesis is a brief statement of the anticipated results from a study being conducted. The hypothesis will be revisited in the results and conclusions section of the study write-up.	Classroom, FFA, SAE
37	What is the role/purpose of an abstract when writing an agriscience research study? -The abstract is a brief summary of the purpose of the study, background information of the topic being studied, the materials/methods, the results and conclusions.	Classroom, FFA, SAE
38	Find an impactful member of the agricultural community from history. Create a Tweet about the impact that person has had in the agriculture industry.	Classroom, FFA, SAE
39	Read the article "Climate Change Could Make Food Less Healthy," and write a three to five sentence response. https://www.sciencenewsforstudents.org/blog/analyze/analyze-climate-change-could-make-food-less-healthy	Classroom, FFA, SAE
40	Read the article "Fish get pooped living in polluted water," https://www.sciencenewsforstudents.org/article/fish-get-pooped-living-polluted-water . 1.Create a numbered lab procedure to outline the research study that was performed in this article. 2.What implications will this research have for the future of our natural resource systems?	Classroom, FFA, SAE
41	Write a two-minute elevator speech about what agriculture is/means. This elevator speech should be written for a student at the elementary level that has never taken an agriculture class.	Classroom, FFA, SAE

42	 (Image can be found at http://www.fao.org/resources/infographics/infographics-details/en/c/852816/.) 1. What role do forests play in the need for energy across the world? 2. Why do we need to maintain and improve our forest lands?	Classroom, FFA, SAE
43	The role of this governmental agency is to protect the health of humans and the environment. a. USDA b. EPA c. FSIS d. CDC	Classroom, FFA, SAE
44	This scientist not only was awarded the Nobel Peace Prize for his work in addressing hunger globally, but he also developed the World Food Prize to recognize those individuals making an impact in the world of agriculture.  a. George Washington Carver b. John Deere c. Phillip Nelson d. Dr. Norman Borlaug	Classroom
45	Using the World Food Prize Laureates page, find a laureate of interest to you and write a two to three sentence blog post about their accomplishments and agricultural impact. https://www.worldfoodprize.org/index.cfm?nodeID=90971&audienceID=1	Classroom, FFA, SAE
46	How many U.S. states grow wheat? a. 22 d. 32 c. 42 d. 52	Classroom

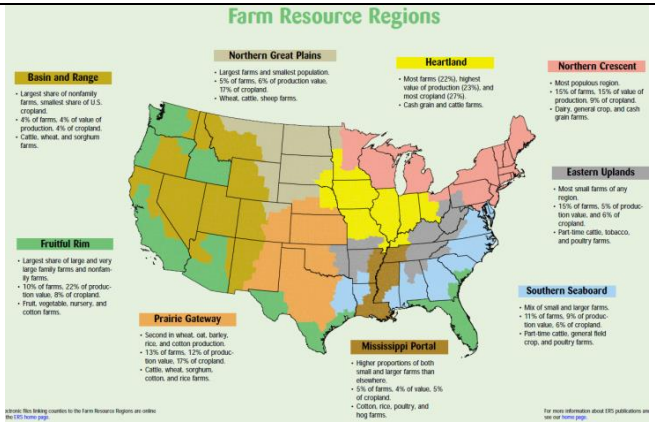
47	Every state in the U.S. produces honey. Which state leads in honey production? a. California b. Florida c. Montana d. North Dakota	Classroom, FFA, SAE
48	 (Image can be found at https://www.ffanewhorizons.org/2017/08/28/which-stem-career-is-right-for-you/.) 1. Use the infographic above to determine what STEM career is right for you. 2. Why do you think you ended up at this career? (Think about your personality and skills as you answer this question.)	Classroom, FFA, SAE
49	Using this website, https://www.ffanewhorizons.org/category/ag-101/career-pathways/ , select an agricultural career pathway and describe five skills necessary to be successful in that area of agriculture.	Classroom, FFA, SAE
50	Select a career focus area of interest to you (use AgExplorer.com) and create a Tweet about that focus area.	Classroom, FFA, SAE
51	Identify as many agriculture courses that are offered in your school as you can.	Classroom
52	How will agriculture look in the year 2050 given the rate at which technology progresses?	Classroom
53	Watch the video available at https://youtu.be/MmCCrV1RI9Y and respond to the following questions: (1) What is a wildlife biologist? (2) What personality characteristics do you need to have to be successful in an animal biology career? Identify three characteristics.	Classroom, FFA, SAE
54	What goes around and around the wood but never goes into the wood? -The bark on a tree	Classroom
55	 (Image can be found at https://nfu.org/.) Where does the money go when you purchase a food product at the store?	Classroom, FFA, SAE

PLANT SYSTEMS CAREER FOCUS AREA

	Question	3-Component Model Category
1	If a red house is made from red bricks, a blue house is made from blue bricks, a pink house is made from pink bricks, and a black house is made from black bricks, what is a green house made of? —Greenhouses are made of glass or other transparent material.	Classroom
2	Go to AgExplorer.ffa.org and complete the Career Finder.	Classroom, SAE, FFA
3	Video journaling – Watch a short video clip, reflect in writing and share out. (https://www.youtube.com/watch?v=sc4HxPxNrZ0)	Classroom, SAE, FFA
4	Video journaling – Watch a short video clip, reflect in writing and share out. (https://www.youtube.com/watch?v=2pXuAw1bSQo)	Classroom, SAE, FFA
5	Video journaling – Watch a short video clip, reflect in writing and share out. (https://www.youtube.com/watch?v=6xINyWPpB8)	Classroom, SAE, FFA
6	How many people does one U.S. farm feed? a. 56 people b. 165 people c. 202 people d. 233 people	Classroom
7	Which state has the most farms? a. Missouri b. Iowa c. Oklahoma d. Texas	Classroom
8	True or False — The majority of farms in the U.S. are owned by corporations. Explain your answer in one to two sentences.	Classroom
9	Approximately how much of the U.S. is covered in trees? a. 1/8 b. 1/4 c. 1/3 d. 2/3	Classroom
10	Which of the following is a term used in the forestry industry to describe the segment that works with maintenance and cultivation of trees? a. Vermiculture b. Silviculture c. Parasitology d. Viticulture	Classroom, SAE
11	Develop a list of everyday items that are produced from animal and plant byproducts. You have two minutes. Manufacturing: adhesives, lubricants, solvents Construction: lumber, paint, brushes, tar paper, tool handles Personal Care Items: shampoo, soap, cosmetics, lotions, toothpaste Healthcare: pharmaceuticals, surgical sutures, X-ray film, latex gloves Transportation: biofuels, lubricants, antifreeze, tires, upholstery Sports: uniforms, baseball bats, leather equipment Printing: ink, paper Education: crayons, textbooks, chalk, desks, pencils Entertainment: strings for musical instruments	Classroom

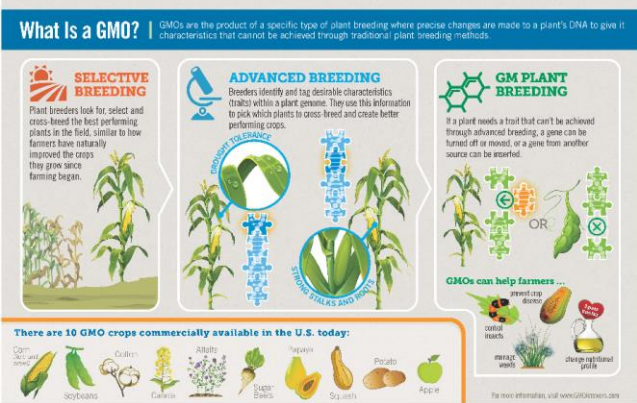
12	Biodiesel is a fuel source created from which common agricultural commodity? - Corn Soybeans - Wheat - Sorghum	Classroom
13	In what year did John Deere begin manufacturing the steel plow? 1791 1802 1837 1868	Classroom
14	Identify five careers you could have in the Plant Systems Career Focus Area. –Examples: Aerial applicator/agricultural pilot, agronomist, crop advisor, formulation chemist, floral designer, etc.	FFA, SAE, Classroom
15	Which U.S. President (pictured here) was known as a conservationist for his work with the National Parks system? - George Washington - Abraham Lincoln - John F. Kennedy Teddy Roosevelt 	Classroom
16	Unscramble the basic plant terminology: wrelfo _____ emts _____ afle _____ ootr _____ rthuiltroeic _____ flower stem leaf root horticulture	Classroom, FFA, SAE
17	Identify five colleges/universities that offer agriculture-related degrees. - Purdue University, University of Illinois, Kansas State, Texas Tech, University of Maryland, etc.	Classroom, FFA, SAE
18	Which of the following is not a grain? - Corn Soybeans - Wheat - Sorghum	Classroom, FFA, SAE
19	What career area is the largest employer in the world? - Medicine - Manufacturing - Education Agriculture	Classroom, FFA, SAE
20	Pictured below, and known for his research with alternative agricultural crops (e.g., sweet potatoes, soybeans, peanuts), this scientist persevered and made a lasting impact on the agriculture industry. - Langston Hughes - Martin Luther King Jr. - Booker T. Washington George Washington Carver 	Classroom, FFA, SAE

21	Cotton is an important commodity to American agriculture. What scientist (pictured below) is responsible for developing the cotton gin to increase the ability to process cotton?  a. Eli Whitney b. Thomas Jefferson c. Norman Borlaug d. John Deere	Classroom, FFA, SAE
22	What type of tree can you carry in your hand? -A palm	Classroom, FFA
23	What goes around and around the wood but never goes into the wood? -The bark on a tree	Classroom, FFA
24	You throw away the outside and cook the inside, then eat the outside and throw away the inside. What is it? -Corn on the cob	Classroom, FFA
25	Draw a picture of what the word <i>agriculture</i> means to you. You have five minutes to complete the drawing.	Classroom, FFA, SAE
26	 Write down five words that come to mind when you look at this picture.	Classroom, FFA, SAE
27	 Write down five words that come to mind when you look at this picture.	Classroom, FFA, SAE
28	What does USDA stand for? a. Unified States Department of Agriculture b. United State Department of Aquaculture c. United States Department of Agriculture d. Unknown Status for Domestic Agriculture	Classroom, FFA, SAE

29	Using one to two sentences, explain the purpose and labeling requirements for this seal. -The USDA Organic seal means that the product meets the following USDA standards of an organic food product: (1) "produced without excluded methods," (2) "produced using allowed substances" and (3) "overseen by a USDA National Organic Program-authorized certifying agent."		Classroom, FFA, SAE
30	The country that is the leading exporter of cut flowers to the United States floral industry is: - Holland - Ecuador - Mexico Columbia		Classroom, FFA, SAE
31	Botanical names are written in - English. Latin. - Greek. - German.		Classroom, FFA, SAE
32	_____ is the single most important element to keep flowers fresh after delivery from a supplier. - Air/ventilation Water - Light - Cool temperatures		Classroom, FFA, SAE
33	One acre contains how many square feet? 34,650 43,560 43,600 36,350		Classroom, FFA, SAE
34	The study of insects and their relationship with the forest is called _____. - Dendrology - Forest pathology - Forest hydrology Forest entomology		Classroom, FFA, SAE
35	 (Image can be found at https://www.ers.usda.gov/webdocs/publications/42298/32489_aib-760_002.pdf?v=42487.) What region do we live in, and what are some of our greatest commodities according to the map from the USDA?		Classroom

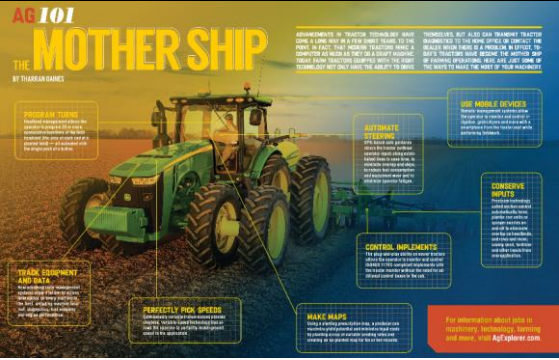
36	Utilizing the State Agricultural Facts map (https://www.agclassroom.org/teacher/ag_facts.cfm), identify and write down five interesting facts that you did not know about your state.	Classroom
37	Write a Tweet about how agriculture impacted you this weekend.	Classroom
38	Watch the video available at https://youtu.be/h9KDUU6ZaqQ , and respond to the following questions: 1. What role does Bayer play in the agriculture industry? 2. How does science help Bayer find solutions for feeding the growing population?	Classroom, FFA, SAE
39	1. What role does RFDTV: Rural America's Most Important Network play in communicating agriculture? 2. What career area would you be involved in if you worked for RFDTV? 	Classroom, FFA, SAE
40	Watch the video available at https://youtu.be/XVbOOMCjktA , and respond to the following questions: 1. Why is growing plants in space important? 2. Why is figuring out how to grow plants in space challenging?	Classroom, FFA, SAE
41	Watch the video available at https://youtu.be/FxMHI5Gr2Yg , and respond to the following question: 1. What are scientists doing to help feed a growing population?	Classroom, FFA, SAE
42	What relationship exists between science and agriculture? Give two examples to illustrate your response.	
43	What is the purpose of a literature review in agriscience research? -To support and show previously completed research that directly relates to your research	Classroom, FFA, SAE
44	What is the purpose of the materials and methods section in an agriscience report/research study? -To give readers a clear understanding of the process and materials required to complete the research. Materials and methods also allow the reader to know how to replicate the study.	Classroom, FFA, SAE
45	What is a hypothesis? Why is a hypothesis created when completing agricultural research? -A hypothesis is a brief statement of the anticipated results from a study being conducted. The hypothesis will be revisited in the results and conclusions section of the study write-up.	Classroom, FFA, SAE
46	What is the role/purpose of an abstract when writing an agriscience research study? -The abstract is a brief summary of the purpose of the study, background information of the topic being studied, the materials/methods, the results and conclusions.	Classroom, FFA, SAE
47	In which career development event (CDE) do participants often create a floral arrangement? a. Nursery/landscape b. Horticulture c. Floriculture d. Forestry	Classroom, FFA
48	Find an impactful member of the agricultural community from history. Create a Tweet about the impact that person has had in the agriculture industry.	Classroom, FFA, SAE

49	Read the following article and respond with six emojis that represent your thoughts/feelings about the material: https://newsela.com/read/elem-san-francisco-hotel-rooftop-bees/id/41820 .	Classroom, FFA, SAE
50	Read the article "Fish get pooped living in polluted water," https://www.sciencenewsforstudents.org/article/fish-get-pooped-living-polluted-water . 1. Create a numbered lab procedure to outline the research study that was performed in this article. 2. What implications will this research have for the future of our natural resource systems?	Classroom, FFA, SAE
51	Read the article "New 'tattoo' could lead to drought-tolerant crops," https://www.sciencenewsforstudents.org/article/new-tattoo-could-lead-drought-tolerant-crops . 1. Using three to five sentences, describe the impact this technology could have on addressing the growing food crisis in the world.	Classroom, FFA, SAE
52	Read the article "Robots will control everything you eat," https://www.sciencenewsforstudents.org/article/robots-will-control-everything-you-eat . 1. List three facts and three opinions you have regarding the utilization of robots in agriculture.	Classroom, FFA, SAE
53	Write a two-minute elevator speech about what agriculture is/means. This elevator speech should be written for a student at the elementary level that has never taken an agriculture class.	Classroom, FFA, SAE
54	 (Image can be found at http://www.fao.org/resources/infographics/infographics-details/en/c/1107110/.) From the infographic, select one of the five benefits of school gardens, and explain, using two to five sentences, why this benefit would be the greatest for YOUR school and program.	Classroom, FFA, SAE

55	 (Image can be found at https://gmoanswers.com/gmo-basics.) Use the infographic "What is a GMO" to explain what a GMO is. Imagine you are writing this explanation to a friend; use two to five sentences.	Classroom, FFA, SAE
56	This scientist not only was awarded the Nobel Peace Prize for his work in addressing hunger globally, but he also developed the World Food Prize to recognize those individuals making an impact in the world of agriculture.  - George Washington Carver - John Deere - Phillip Nelson Dr. Norman Borlaug	Classroom
57	Using the World Food Prize Laureates page, find a laureate of interest to you and write a two to three sentence blog post about their accomplishments and agricultural impact. https://www.worldfoodprize.org/index.cfm?nodeID=90971&audienceID=1	Classroom, FFA, SAE
58	Using two to three sentences, explain why and how you should advocate for hunger.  (Image can be found at http://alliancetoendhunger.org/aeh-playbook/.)	Classroom, FFA, SAE

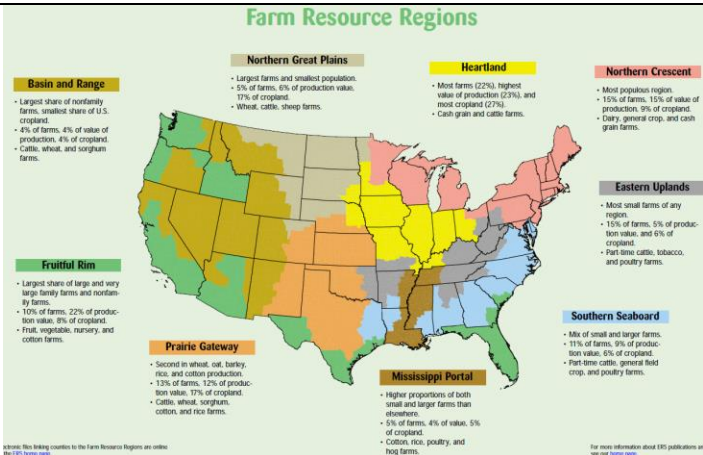
59	Go to the Feeding America "Hunger is Closer than You Think" website (http://www.feedingamerica.org/hunger-in-america/) and select your state. Draw a picture that accurately represents what your state looks like regarding hunger. 	Classroom
60	How many U.S. states grow wheat? 22 32 42 52	Classroom, FFA, SAE
61	Every state in U.S. produces honey. Which state leads in honey production? - California - Florida - Montana North Dakota	Classroom, FFA, SAE
62	New crop protection products go through many steps before being approved for use in the industry. Approximately how long does the process from concept development to approval take? 2 years 7 years 11 years 13 years	Classroom
63	What country consumes the most coffee in the world? - Brazil - Columbia - England United States	Classroom, FFA, SAE
64	Which state is the leader in total corn production? - Nebraska Iowa - Illinois - Minnesota	Classroom, FFA, SAE
65	Which country consumes the most corn? - China United States - European Union - Brazil	Classroom, FFA, SAE
66	Which of the following grain commodities also goes by the name "milo"? - Corn - Soybean - Alfalfa Sorghum	Classroom, FFA, SAE
67	Ethanol is a fuel made from what grain commodity? Corn - Soybeans - Wheat - Coffee	Classroom, FFA, SAE

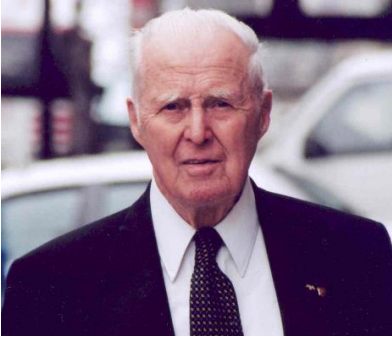
68	Identify the following plant:  a. African violet b. Dumbcane c. Aloe plant d. Snake plant	Classroom, FFA, SAE
69	Identify the following plant:  a. African violet b. Dumbcane c. Aloe plant d. Snake plant	Classroom, FFA, SAE
70	Identify the following tool:  a. Propagation mat b. Shade fabric c. Polyethylene film d. Peat moss	Classroom, FFA, SAE
71	Identify the following tool:  a. Peat moss b. PVC pipe cutter c. Anvil blade pruners d. Bypass pruners	Classroom, FFA, SAE

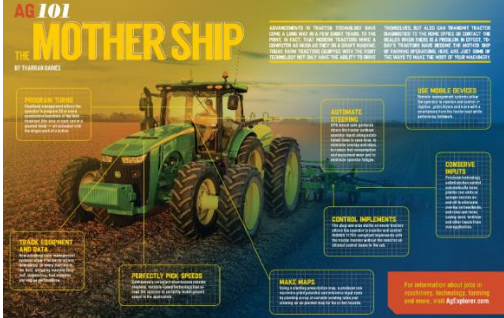
72	 (Image can be found at https://www.ffaewhorizons.org/2017/08/28/which-stem-career-is-right-for-you/.) 1. Use the infographic to determine what STEM career is right for you. 2. Why do you think you ended up at this career? (Think about your personality and skills as you answer this question.)	Classroom, FFA, SAE
73	 (Image can be found at https://www.ffaewhorizons.org/2017/11/22/ag-101-the-mother-ship/.) 1. How has agricultural technology evolved over the years? 2. What impact does this change have on agriculture's ability to feed a growing population?	Classroom, FFA, SAE
74	Select a career focus area of interest to you (use AgExplorer.ffa.org) and create a Tweet about that the focus area.	Classroom, FFA, SAE
75	Identify as many agriculture courses that are offered in your school as you can.	Classroom
76	 (Image can be found at https://nfu.org/.) Where does the money go when you purchase a food product at the store?	Classroom, FFA, SAE

POWER, STRUCTURAL AND TECHNICAL SYSTEMS CAREER FOCUS AREA

	Question	3-Component Model Category
1	Go to AgExplorer.com and complete the Career Finder.	Classroom, SAE, FFA
2	Video journaling – Watch a short video clip, reflect in writing and share out. (https://www.youtube.com/watch?v=sc4HxPxNrZ0)	Classroom, SAE, FFA
3	Biodiesel is a fuel source created from which common agricultural commodity? a. Corn b. Soybeans c. Wheat d. Sorghum	Classroom
4	In what year did John Deere begin manufacturing the steel plow? a. 1791 b. 1802 c. 1837 d. 1868	Classroom
5	In what year was barbed wire invented and utilized for livestock? a. 1791 b. 1802 c. 1837 d. 1867	Classroom
6	What are the parts of the 3-Component model of School-Based Agricultural Education? a. Animals, plants, foods b. Family, friends, agriculture c. Careers, classroom, SAE d. Classroom, SAE, FFA	FFA, Classroom, SAE
7	Identify two ways you can advocate for agriculture. – Example: Utilize social media in a professional manner.	FFA, Classroom
8	Identify five careers you could have in the Power, Structural and Technical Systems Career Focus Area. – Example: Construction foreman, brand manager, electrical engineer, design engineer, hydraulic technician, etc.	FFA, SAE, Classroom
9	Identify five colleges/universities that offer agriculture-related degrees. – Purdue University, University of Illinois, Kansas State, Texas Tech, University of Maryland, etc.	Classroom, FFA, SAE
10	Cotton is an important commodity to American agriculture. What scientist (pictured here) is responsible for developing the cotton gin to increase the ability to process cotton?  a. Eli Whitney b. Thomas Jefferson c. Norman Borlaug d. John Deere	Classroom, FFA, SAE
11	If an electric train is traveling south, which way is the smoke blowing? – There is no smoke if the train is electric.	Classroom, FFA

12	In a one-story pink house, there was a pink person, a pink cat, a pink fish, a pink computer, a pink chair, a pink table, a pink telephone, a pink shower — everything was pink! What color were the stairs? -It is a one-story house, which means there aren't any stairs.	Classroom, FFA
13	Which weighs more, a pound of feathers or a pound of bricks? -Neither, they both weigh one pound	Classroom, FFA
14	Draw a picture of what the word <i>agriculture</i> means to you. You have five minutes to complete the drawing.	Classroom, FFA, SAE
15	Steel angle iron is sold for \$1.46 per linear foot, steel rod is sold for \$0.94 per linear foot and steel pipe is sold for \$2.76 per linear foot. If 35.5 feet of angle iron, 12 feet of rod and 100 inches of pipe are purchased, and 7 percent taxes are paid with the purchase, what is the approximate total price for the metal? a. \$78.14 b. \$86.11 c. \$92.14 d. \$100.11 35.5' x \$1.46/ft = \$51.83 12' x \$0.94/ft = \$11.28 100" / 12" x \$2.76/ft = \$23 Total = \$86.11 \$86.11 x 1.07tax = \$92.14	Classroom, FFA, SAE
16	 (Image can be found at https://www.ers.usda.gov/webdocs/publications/42298/32489_aib-760_002.pdf?v=42487.) What region do we live in, and what are some of our greatest commodities according to the map from the USDA?	Classroom
17	Utilizing the State Agricultural Facts map (https://www.agclassroom.org/teacher/ag_facts.cfm), identify and write down five interesting facts that you did not know about your state.	Classroom
18	Write a Tweet about how agriculture impacted you this weekend.	Classroom
19	Watch the following video: https://youtu.be/wfILqW3LqIk . 1. What role does CSX Transportation play in the agriculture industry? 2. Identify two careers you could have through CSX Transportation.	Classroom, FFA, SAE
20	Watch the following video: https://youtu.be/0PU6BkSMUoA . 1. What careers exist in agriculture that are not production based? 2. What role do America's farmers play in our economy?	Classroom
21	Watch the following video: https://youtu.be/B_WSLbw3ApA .	Classroom, FFA, SAE

	1. What benefits are there to being employed in agriculture? Identify three.	
22	Find an impactful member of the agricultural community from history. Create a Tweet about the impact that person has had in the agriculture industry.	Classroom, FFA, SAE
23	Read the article "Robots will control everything you eat," https://www.sciencenewsforstudents.org/article/robots-will-control-everything-you-eat . List three facts and three opinions you have regarding the utilization of robots in agriculture.	Classroom, FFA, SAE
24	Write a two-minute elevator speech about what agriculture is/means. This elevator speech should be written for a student at the elementary level that has never taken an agriculture class.	Classroom, FFA, SAE
25	This scientist not only was awarded the Nobel Peace Prize for his work in addressing hunger globally, but he also developed the World Food Prize to recognize those individuals making an impact in the world of Agriculture.  a. George Washington Carver b. John Deere c. Phillip Nelson d. Dr. Norman Borlaug	Classroom
26	Using the World Food Prize Laureates page, find a laureate of interest to you and write a two to three sentence blog post about their accomplishments and agricultural impact. https://www.worldfoodprize.org/index.cfm?nodeID=90971&audienceID=1	Classroom, FFA, SAE
27	Watch the video "Ag & Bio Engineering: Meeting the Needs of Humankind" (https://youtu.be/WM16bY0W8o8). 1. What does an agricultural and biological engineer do? 2. What impact do they have on the world and economy?	Classroom, FFA, SAE
28	 (Image can be found at https://www.ffaewhorizons.org/2017/08/28/which-stem-career-is-right-for-you/.) 1. Use the infographic above to determine what STEM career is right for you. 2. Why do you think you ended up at this career? (Think about your personality and skills as you answer this question.)	Classroom, FFA, SAE

29	 (Image can be found at https://www.ffaewhorizons.org/2017/11/22/ag-101-the-mother-ship/.) 1. How has agricultural technology evolved over the years? 2. What impact does this change have on agriculture's ability to feed a growing population?	Classroom, FFA, SAE
30	Go to the website https://www.ffaewhorizons.org/category/ag-101/career-pathways/ , select an agricultural career pathway and describe five skills necessary to be successful in that area of agriculture.	Classroom, FFA, SAE
31	Select a career focus area of interest to you (use AgExplorer.ffa.org) and create a Tweet about that focus area.	Classroom, FFA, SAE
32	Identify as many agriculture courses that are offered in your school as you can.	Classroom
33	How will agriculture look in the year 2050 given the rate at which technology progresses?	Classroom
34	Watch the video available at https://youtu.be/kVMEfoaLB5Y , and respond to the following questions: 1. What skills do you need to be successful in an ag and turf technician career? 2. What education requirements exist for this type of career?	Classroom, FFA, SAE
35	If each outlet on an electrical circuit theoretically uses 1.5 amperes, approximately how many outlets may safely be installed on a circuit meant to carry a maximum of 20 amperes? a. 10 outlets b. 13 outlets c. 18 outlets d. 20 outlets Outlets = 20 amps ÷ 1.5 amps/outlet = 13.33 outlets	Classroom, FFA, SAE
36	You are applying for a fuel tax rebate. The amount of fuel road tax is 32 cents per gallon. If the refund is 50 percent of this amount, what is the refund for 8,000 gallons of fuel? a. \$1,280 b. \$2,560 c. \$3,840 d. \$5,120 \$0.16 x 8,000 = \$1,280	Classroom, FFA, SAE
37	A skid steer was purchased five years ago for \$44,600 and has an estimated 10-year life. If the accumulated depreciation is \$23,400, what is the current book value? a. \$21,200 b. \$23,400 c. \$28,600 d. \$44,600 \$44,600 - \$23,400 = \$21,200	Classroom, FFA, SAE

38	Assume convenience outlets will be placed a maximum of 20 feet apart along the outside walls in the farm machinery shed. If the shed is rectangular, measuring 60 feet by 225 feet, what is the minimum number of convenience outlets required for this installation? a. 29 b. 27 c. 15 d. 14 $225 + 225 + 60 + 60 = 570\text{ft} \rightarrow 570\text{ft}/20\text{ft} = 28.5$	
39	What is another name for "stick" welding? a. Gas metal arc welding b. Tungsten inert gas welding c. Shielded metal arc welding d. Flux core arc welding	Classroom, FFA, SAE
40	What is the approximate temperature of the arc in shielded metal arc welding? a. 1250 to 1850 degrees Fahrenheit b. 2000 to 3500 degrees Fahrenheit c. 4000 to 5500 degrees Fahrenheit d. 6500 to 7000 degrees Fahrenheit	Classroom, FFA, SAE
41	What is the name of the mix of base metal and filler rod that remains after a weld is complete? a. Slag b. Bead c. Crater d. Electrode	Classroom, FFA, SAE
42	How many board feet are 15 pieces of 1" x 4" lumbers that are 8 feet long (use nominal not actual measurements). a. 15 b. 40 c. 60 d. 66 $(1\text{in.} \times 4\text{in.} \times 8\text{ft})/12 \times 15 = 39.99$	Classroom, FFA, SAE
43	A total of 478.5 feet of steel rod is used to construct a hay feeding rack, and the rod weighs 0.658 pounds per foot of length. If the filler metal from welding adds an additional 2.8 pounds to the overall weight, what is the approximate total weight of the hay feeding rack? a. 224 lbs. b. 273 lbs. c. 318 lbs. d. 329 lbs. $[(478.5 \text{ ft}) \times (0.68 \text{ lbs./ft})] + 2.8 \text{ lbs.} = 328.18 \text{ lbs.}$	Classroom, FFA, SAE

Name: _____
Week of: _____

Period: _____
Class: _____

BELL RINGER ACTIVITY

Monday, _____ Question: Answer:	Tuesday, _____ Question: Answer:
Wednesday, _____ Question: Answer:	Thursday, _____ Question: Answer:
Friday, _____ Question: Answer:	

EXIT TICKETS

Week of _____

Monday, _____ Question: Answer:	Tuesday, _____ Question: Answer:
Wednesday, _____ Question: Answer:	Thursday, _____ Question: Answer:
Friday, _____ Question: Answer:	Summarize the learning objectives for the week.

**Worksheet modified from a resource created by Chasten Bear – Indianapolis Classical Schools, Indianapolis, Ind.*