Name: _____

Aligned to the following standards:
CS.02; CS.03, FFA.PL-A, FFA.PL-E, FFA.PL-F, FFA.PG-G, FFA.PG-I; FFA.PG-J, FFA.CS-M, FFA.CS-N, CCSS.RI.9-10.2, CCSS.RI.9-10.4, CCSS.WHST.9.10.4, CCSS.W.9-10.2, CCSS.W.9-10.4, CCSS.SL.9-10.2, AG2; AG3, CRP.02, CRP.03, CRP.04, CRP.07, CRP.08

Appendix 5: What's Up With Almond Girl Jenny?

Directions:

Read the article "What's Up With Almond Girl Jenny?" in the fall 2021 issue of *FFA New Horizons* and answer the following questions.

Part 1

What state is the family farm located in?
_____

Growing up on the family farm, what were some of Jenny's responsibilities? *Identify 4.*

What FFA chapter did she join in high school? _____

What was her SAE?
_____

What does she consider the "icing on the cake" for her FFA career?
_____

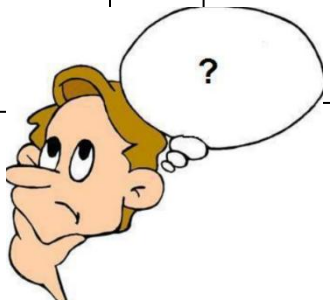
What is the title of her blog?

Why did she start a blog?

How does the blog help her farm today?

What advice does she feel she can offer to anyone? *Explain how she came to that conclusion.*

How can you apply her advice in your own life?



Name: _____

Directions:

Answer the following questions and complete the activities to learn about the growth cycle and requirements for almonds.

Part 2

Use this website, https://www.almonds.com/why-almonds/almond-lifecycle, to fill in the month/time period and a description of what occurs during that period in the chart below. Additionally, this website can be used to answer questions about the Agriculture, Food and Natural Resources (AFNR) Value Chain: FFA.org/value-chain-lessons/.

Month	What occurs during this time?
November to January	
Mid-February to Mid-March	
March to June	
July	
August to October	***What step is this in the AFNR Value Chain?***

What step is November to July in the AFNR Value Chain?

1. Draw the state that produces the most almond trees. Use this link to answer: https://www.fas.usda.gov/newsroom/cracking-open-new-markets-california-almonds

2. What happens to the almonds after harvest?

What step is this in the AFNR Value Chain?

Name: _____

3. Almond farmers have a zero-waste approach. Explain what this means.

4. What is the next step after harvest?

What step is this in the AFNR Value Chain?

5. After sizing, what happens next?

What step is this in the AFNR Value Chain?

Now that we have talked about production of almonds, let's discuss and learn about the growth requirements for almonds. Utilize this website to answer the questions below, https://www.gardeningknowhow.com/edible/nut-trees/almonds/growing-almond-nut-trees.htm.

6. List the conditions in which almond trees like to grow. *Identify 5 conditions.*

Name: _____

Directions:

Utilize these websites, https://www.almonds.com/why-almonds/health-and-nutrition/nutritional-value and https://www.healthline.com/health/balanced-diet to answer the following questions and complete the activities to learn about the nutritional aspects of almonds.

Part 3

Match the nutritional benefit with the amount per serving (1 oz).

A.	Protein	_____ 9 g
B.	Fiber	_____ 1 mg (4% daily rec. intake)
C.	Calcium	_____7.3 mg
D.	Iron	_____0.3 mg
E.	Vitamin E	_____ 210 mg
F.	Riboflavin	_____6 g
G.	Potassium	_____ 4 g
H.	Niacin	_____ 75 mg
I.	"Good" monounsaturated fats	_____1 mg

What is a balanced diet? How can almonds fit into a balanced diet?

Describe the nutritional benefit of each of the components as identified above utilizing websites such as https://medlineplus.gov/definitions/nutritiondefinitions.html.

Protein:

Fiber:

Calcium:

Iron:

Vitamin E:

Riboflavin:

Potassium:

Niacin:

"Good" monounsaturated fats:

Almonds contain 50% of the daily value for vitamin E. What does vitamin E help the body do?

Name: _____

Now that we have learned about the nutritional facts, let's compare the different types of milks. Utilize this website, https://www.healthline.com/health/milk-almond-cow-soy-rice, to answer the questions below.

Type of Milk:	Nutritional Facts:

What is one fact that stood out to you?

Let's review! We have learned about the production, growth requirements, nutritional facts and different types of alternative milks. Complete the activities below to review what you have learned.

1. Summarize, in one sentence, the production timetable for producing almonds. _____

_____

2. Summarize, in one sentence, the methods for producing almonds. _____

_____

3. Create a hashtag to summarize the nutritional values of almonds. _____

4. Summarize, in one sentence, the growth requirements for almonds. _____

_____

Name: _____

Aligned to the following standards:
CS.02; CS.03, FFA.PL-A, FFA.PL-E, FFA.PL-F, FFA.PG-G, FFA.PG-I; FFA.PG-J, FFA.CS-M, FFA.CS-N, CCSS.RI.9-10.2, CCSS.RI.9-10.4, CCSS.WHST.9.10.4, CCSS.W.9-10.2, CCSS.W.9-10.4, CCSS.SL.9-10.2, AG2; AG3, CRP.02, CRP.03, CRP.04, CRP.07, CRP.08

KEY: What's Up With Almond Girl Jenny?

Directions:

Read the article, "What's Up With Almond Girl Jenny?" in the Fall 2021 issue of *FFA New Horizons* and answer the following questions.

Part 1

What state is the family farm located in?
California

What FFA chapter did she join in high school? Chico FFA Chapter

What was her SAE? Raising sheep and hogs

What is the title of her blog?
Almond Girl

How does the blog help her farm today?
It has become an essential part of the farm's marketing strategy.

What advice does she feels she can offer to anyone? *Explain how she came to that conclusion.*

Being open to new opportunities is the greatest piece of advice she feels she can offer to anyone.

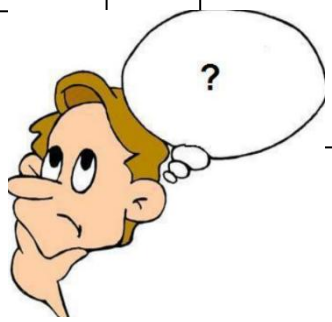
She had her mind set on what she was going to do after high school and college, but that isn't what she is doing now. She says that is OK, and it is OK to let life lead you down alternative paths. She goes on to say that it is OK to follow your heart because it might lead to bigger and greater success.

Growing up on the family farm, what were some of Jenny's responsibilities? *Identify 4.*
Checking irrigation pipes, painting walnut trees to prevent sunburn, managing pests and rodents, and taking care of odds and ends.

What does she consider the icing on the cake for her FFA career?
Receiving her American FFA Degree

Why did she start a blog?
To highlight and share what life on the farm looks like and who a farmer really is.

How can you apply her advice in your own life?
Answers will vary.



Name: _____

Directions:

Answer the following questions and complete the activities to learn about the growth cycle and requirements for almonds.

Part 2

Use this website, https://www.almonds.com/why-almonds/almond-lifecycle, to fill in the month/time period and a description of what occurs during that period in the chart below. Additionally, this website can be used to answer questions about the Agriculture, Food and Natural Resources (AFNR) Value Chain: FFA.org/value-chain-lessons/.

Month	What occurs during this time?
November to January	Almond trees go through a period of dormancy, losing their leaves. Orchard soils store up rainwater for the upcoming growing season, and the trees store nutrients and energy for next year's crop. Toward the end of dormancy, buds begin swelling on each tree's branches in preparation for bloom.
Mid-February to Mid-March	Almond tree buds burst into white and light-pink blooms. Beehives are brought into the orchards to help pollinate the crop.
March to June	Almond kernels mature and grow to full size, with the shell hardening around it, and both are protected by a fuzzy outer hull. Green almonds can be harvested during this time for various culinary uses.
July	Almond hulls split open, exposing the almond shell and allowing it and the kernel inside to dry. Shortly before harvest, the hulls turn a straw-yellow color and open completely.
August to October	Mechanical tree "shakers" harvest the crop by vigorously shaking it to the ground. Protected by their outer hulls and shells, the almonds then dry naturally in the warm sun for 7 to 10 days before being swept into rows by a "sweeper" machine. Next, a harvester or "pickup" machine drives over the rows, vacuuming the nuts up into a cart that brings them to the edge of the orchard for transport to the next stop on their journey. ***What step is this in the AFNR Value Chain?*** Supply Chain

What step is November to July in the AFNR Value Chain?
Production

Name: _____

1. Draw the state that produces the most almond trees? Use this link to answer: https://www.fas.usda.gov/newsroom/cracking-open-new-markets-california-almonds

California

2. What happens to the almonds after harvest?
After harvest, almonds go to a huller/sheller facility where the kernels pass through a roller to remove the hull, shell and any debris from the orchard, such as sticks and rocks.

What step is this in the AFNR Value Chain? This step is part of the supply chain.

3. Almond farmers have a zero-waste approach. Explain what this means.

Everything that is grown is used. Almond shells are used as livestock bedding, and hulls are valuable dairy feed. There is research underway exploring new potential uses in the areas of recycled plastics, fuel and regenerative agriculture.

4. What is the next step after harvest? The processor for sizing, where the almond kernels drop into separate bins according to size.

What step is this in the AFNR Value Chain? This step is part of the supply chain.

5. After sizing, what happens next?
The almonds are kept in controlled storage conditions to maintain quality until they're either shipped or further processed into a variety of different almond forms for diverse culinary uses.

What step is this in the AFNR Value Chain? End product

Name: _____

Now that we have talked about production of almonds, let's discuss and learn about the growth requirements for almonds. Utilize this website to answer the questions below, https://www.gardeningknowhow.com/edible/nut-trees/almonds/growing-almond-nut-trees.htm.

1. List the conditions in which almond trees like to grow. *Identify 5 conditions.*

- They don't tolerate overly wet soil and are susceptible to spring frost.
- They thrive in mild, wet winters and hot, dry summers in full sun.
- Very few varieties of almond trees are self-fertile and will therefore need cross pollination.
- Should be planted in deep, fertile and well-draining sandy loam soil
- Should be planted 19 to 26 feet apart and irrigated despite the fact that the trees are drought tolerant. Nitrogen and organic fertilizer will aid in growth.

Name: _____

Directions:

Utilize these websites, https://www.almonds.com/why-almonbeneds/health-and-nutrition/nutritional-value and https://www.healthline.com/health/balanced-diet to answer the following questions and complete the activities to learn about the nutritional aspects of almonds.

Part 3

Match the nutritional benefit with the amount per serving (1 oz).

A.	Protein	I 9 g
B.	Fiber	D 1 mg (4% daily rec. intake)
C.	Calcium	E 7.3 mg
D.	Iron	F 0.3 mg
E.	Vitamin E	G 210 mg
F.	Riboflavin	A 6 g
G.	Potassium	B 4 g
H.	Niacin	C 75 mg
I.	"Good" monounsaturated fats	D 1 mg

Almonds contain 50% of the daily value for vitamin E. What does vitamin E help the body do?

It helps protect cells from the damaging effects of free radicals, caused by pollution, UV rays from the sun, cigarette smoke and other environmental and intrinsic factors.

What is a balanced diet? How can almonds fit into a balanced diet?
A balanced diet gives your body the nutrients it needs to function correctly. To get the nutrition you need, most of your daily calories should come from fruits, vegetables, whole grains, legumes, nuts and lean proteins. Answers will vary regarding how almonds may fit into a balanced diet.

Describe the nutritional benefit of each of the components as identified above utilizing websites such as https://medlineplus.gov/definitions/nutritiondefinitions.html.

Protein: Helps build and maintain bones, muscles and skin

Fiber: Makes you feel full faster and stay full for a longer time, which can help control your weight

Calcium: Helps maintain strong bones

Iron: Essential element for blood production

Vitamin E: Helps maintain healthy skin and eyes and strengthen the body's natural defense against illness and infection (immune system)

Riboflavin: Also known as Vitamin B2 and is one of eight B vitamins; helps the body to convert food (carbohydrates) into fuel (glucose) which is used to produce energy; helps metabolize fats and protein

Potassium: Type of electrolyte. It helps your nerves to function and muscles to contract. It helps your heartbeat stay regular.

Niacin: It is a B vitamin that is used by your body to turn food into energy. It helps keep your nervous system, digestive system and skin healthy.

"Good" monounsaturated fats: It can help lower your LDL (bad) cholesterol level. Cholesterol is a soft, waxy substance that can cause clogged or blocked arteries.

Name: _____

Now that we have learned about the nutritional facts, let's compare the different types of milks. Utilize this website, https://www.healthline.com/health/milk-almond-cow-soy-rice, to answer the questions below.

Type of Milk:	Facts:
Cow's Milk (whole milk)	Has the highest fat content of all types of milk. One cup contains: 150 calories, 12 grams of carbs, 8 grams of fat and 8 grams of protein. Pros of cow's milk: whole milk can provide essential proteins; extra calories from fats, and vitamins and minerals; lactose-free versions are widely available. Cons of cow's milk: high in calories; many people are intolerant to lactose (a sugar); some have ethical concerns.
Almond Milk	Made from ground almonds and filtered water. May contain starches and thickeners to improve consistency and shelf life. Typically, lower in calories than other milks (as long as it's unsweetened). It is free of saturated fat and is naturally lactose-free. Per cup, it has 30 to 60 calories, 1 gram of carbs, 3 grams of fat and 1 gram of protein. Pros of almond milk: low in calories; good source of calcium, vitamin A and vitamin D; it is vegan; naturally lactose-free. Cons of almond milk: not a good source of protein; may contain carrageenan, which may cause digestive issues in some people; there are some environmental concerns about the amount of water used to cultivate almonds.
Soy Milk	Soy milk is made from soybeans and filtered water. May contain thickeners to improve consistency and shelf life. One cup of unsweetened soy milk has about 80 to 100 calories, 4 grams of carbs, 4 grams of fat and 7 grams of protein. Soy milk is naturally free of cholesterol and low in saturated fat. It contains no lactose. It is a good source of protein, calcium and potassium. Pros of soy milk: good source of potassium; it contains as much protein as cow's milk; contains very little saturated fat. Cons of soy milk: soy is a common allergen; most of the soy produced in the U.S. comes from genetically modified plants, which is a concern to some
Rice Milk	Rice milk is made from milled rice and water. May contains additives to improve consistency and shelf stability. Least likely of all milk products to cause allergies. Rice milk contains 120 calories, 22 grams of carbs, 2 grams of fat and little protein. FDA recommends not relying solely on rice and rice products, especially for infants, children and pregnant women. Pros of rice milk: least allergenic of milk alternatives; it can be fortified to be a good source of calcium, vitamin A and D; it is naturally sweeter than other milk alternatives. Cons of rice milk: high in carbs; not a good source of protein; eating too much of a rice product may pose a health risk for infants and children due to inorganic arsenic levels
Coconut Milk	Coconut milk is made from filtered water and coconut cream, which is made from grated mature coconut flesh. May contain added thickeners and other ingredients. Coconut milk contains more fat than the other milk alternatives. Each cup of unsweetened coconut milk

Name: _____

	contains about 50 calories, 2 grams of carbs, 5 grams of fat and 0 grams of protein. It doesn't naturally contain calcium, vitamin A or vitamin D. Pros of coconut milk: safe for most people with nut allergies; can be fortified to be a good source of calcium, vitamin A and vitamin D. Cons of coconut milk: not a good source of protein; may contain carrageenan, which may cause digestive issues in some people

What is one fact that stood out to you?

Let's review! We have learned about the production, growth requirements, nutritional facts and different types of alternative milks. Complete the activities below to review what you have learned. Answers will vary for Numbers 1 to 4.

1. Summarize, in one sentence, the production timetable for producing almonds.

2. Summarize, in one sentence, the methods for producing almonds.

3. Create a hashtag to summarize the nutritional values of almonds.

4. Summarize, in one sentence, the growth requirements for almonds.