

Name: \_\_\_\_\_

# Online Module Student Journal

## Module 3: Sustainability in Agriculture

### Directions:

Complete the following questions as you follow along with the online module.

### Introduction

Complete the following questions BEFORE you start the online module.

1. Sustainability means having the ability to meet the needs of the present without compromising the needs of the future. What are three ways that agriculturists can do that?
2. How do you think agriculturists think about sustainability?

### Section 1: Sustainability Focus Areas

Complete the following questions after you complete Section 1 of the module.

1. Pick one of the focus areas from this section (climate change, water conservation, soil health, waste management) and explain, in your own words, why it is important to agriculture.  
*Respond in three or four sentences.*
2. Pick one of the focus areas from this section (climate change, water conservation, soil health, waste management) and explain, in your own words, why it is important to you as an individual.  
*Respond in three or four sentences.*
3. What are some other areas (in agriculture and your own life) where you believe sustainability matters?  
*List one or two for agriculture and one or two for your own life.*

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## Section 2: Agriculture's Sustainability Story

Complete the following questions after you complete Section 2 of the module.

1. Based on what you have learned in this section, describe how sustainable farming and ranching practices contribute to long-term environmental and societal benefits.  
*Respond in three or four sentences.*
2. Thinking back to the four focus areas you learned about in the previous section (climate change, water conservation, soil health, waste management), pick one and describe how it impacts agriculturists.  
*Respond in two or three sentences.*

## Section 3: Careers in Sustainability

Complete the following questions after you complete Section 3 of the module.

1. Which sustainability careers did you find most interesting during your time on AgExplorer? Why did they stand out to you?  
*Respond in three or four sentences.*
2. What additional research or steps could you now take to further explore the careers that interest you?  
*List two or three things.*
3. Why are careers in sustainability important for the future of the agriculture industry?  
*List two or three reasons.*

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# Module 3 Knowledge Check

## Directions:

Complete the following questions after you have concluded Module 3.

1. What is climate change defined as?
  - a. A temporary disruption in weather patterns
  - b. Significant change in climate parameters lasting for an extended period of time
  - c. Significant changes in atmospheric pressure over a period of time
  - d. All of the above could be considered climate change
2. What is the main goal for water conservation?
  - a. Increasing water waste
  - b. Decreasing water efficiency
  - c. Using water efficiently and avoiding waste
  - d. Finding more sources for water on the planet
3. Why is soil health considered an important area of focus?
  - a. Developers can only build on healthy soils
  - b. Land conservation is an important social and political issue
  - c. Healthy soils are the foundation of sustainable agriculture
  - d. Soil can never be rebuilt once it is gone
4. What does the “zero waste” concept aim to achieve?
  - a. Maximizing landfill use
  - b. Sending all waste for incineration
  - c. Recovering resources and sending no waste to landfills or incineration
  - d. Recovering all waste already in landfills and reusing it
5. Match each sustainable practice with the focus area it best aligns with.

|                          |                                             |
|--------------------------|---------------------------------------------|
| _____ Soil health        | a. Utilizing every part of a plant produced |
| _____ Water conservation | b. Planting cover crops                     |
| _____ Climate change     | c. Reducing fossil fuel emissions           |
| _____ Waste management   | d. Utilizing filter strips on farm fields   |
6. Match each sustainable practice with the focus area it best aligns with.

|                          |                                                          |
|--------------------------|----------------------------------------------------------|
| _____ Soil health        | a. Reduce greenhouse gas emissions                       |
| _____ Water conservation | b. No-till farming practices                             |
| _____ Climate change     | c. Planting drought-tolerant crops                       |
| _____ Waste management   | d. Using renewable energy resources on farms and ranches |
7. True or false: Nearly every pathway in the industry of agriculture overlaps with the field of sustainability.
  - a. True
  - b. False

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8. Match the sustainability careers below with the pathway they most closely match with.

\_\_\_\_\_ Conservation Officer

a. Environmental Service Systems

\_\_\_\_\_ Environmental Compliance Officer

b. Skilled Trade Systems

\_\_\_\_\_ Alternative Energy Specialist

c. Agribusiness Systems

\_\_\_\_\_ Sustainability Manager

d. Power, Structural and Technical Systems

\_\_\_\_\_ Wind Turbine Technician

e. Natural Resource Systems