



FFA Blue 365: Lesson 5

Respecting the Planet — Part 1

Created: 03/2019 by the National FFA Organization

The FFA Blue 365 lesson series is intended to bring innovative technology, science, research and entrepreneurship to the classroom. These lessons are designed to highlight the innovations and technologies transforming agriculture.

STUDENT LEARNING OBJECTIVES:

After completing these activities, students will ...

1. Describe the need to respect the planet.
2. Determine global, national and local issues related to respecting the planet.
3. Identify the challenges to respecting the planet at the local level.

TIME REQUIRED: 90 minutes

RESOURCES:

1. Video: The Daily Conversation (2017), "The Future of Farming and Agriculture," <https://www.youtube.com/watch?v=Qmla9NLFBvU>
2. Video: "Blue 365 — Chuck Benson" (2018), <https://vimeo.com/314092819>
3. Video: "Blue 365 — Rick Ekins" (2018), <https://vimeo.com/314082126>
4. Video: "Blue 365 — Dr. Lowell Midla" (2018), <https://vimeo.com/315701406>
5. Website: Environmental Protection Agency (EPA, 2016), "Carbon Footprint Calculator," <https://www3.epa.gov/carbon-footprint-calculator/>
6. Website: Environmental Protection Agency (EPA, 2018), <https://www.epa.gov/environmental-topics>
7. Website: *Earth.org*, "Top 15 Environmental Issues" (Robinson, 2025), <https://earth.org/the-biggest-environmental-problems-of-our-lifetime/>
8. Website: United States Environmental Protection Agency (EPA, 2017), "Environmental Issues," <https://www.epa.gov/environmental-topics>
9. Website: UC Davis (2019), "Agricultural Sustainability Institute," <https://asi.ucdavis.edu/programs/ucsarep/about/what-is-sustainable-agriculture>
10. Website: Unity College (2018), "Brainstorming Ways to Solve Environmental Problems," <https://online.unity.edu/ways-to-solve-environmental-problems/>
11. Website: Environmental Protection Agency (2017), "Recycle City," <https://www3.epa.gov/recyclecity/information.htm>
12. Website: Leave it Better (2019), "Farmers for America," <https://www.leaveitbetter.com/farmers-for-america>
13. Website: "Agriscience Fair," (National FFA Organization, 2018), [FFA.org/participate/awards/agriscience-fair/](https://ffa.org/participate/awards/agriscience-fair/)
14. AgExplorer (AgExplorer, 2018), AgExplorer.ffa.org
15. Infographic generation tools:
 - a. Piktochart (2018), <https://piktochart.com/formats/infographics/>
 - b. Canva (2018), <https://www.canva.com>

EQUIPMENT AND SUPPLIES NEEDED:

1. Internet access to play the videos in real time or embed them in a PowerPoint
2. A copy of the "What Is Respect?" worksheet for each student
3. A copy of the "Carbon Footprint" worksheet for each student
4. A copy of the "Respecting the Planet Globally" worksheet for each student
5. A copy of the "Respecting the Planet Nationally" worksheet for each student
6. A copy of the "Respecting the Planet Locally" worksheet for each student
7. Colored pens or markers
8. Blank paper

THIS QUICK LESSON PLAN WOULD WORK WELL AS AN:

1. Introduction to environmental science and respecting the planet.
2. Introduction to critical issues in agriculture.
3. Introduction to innovations in agriculture.
4. Introduction to technology in agriculture.

STUDENT ACTIVITY SHEETS

<https://ffa.box.com/s/dioi7fmi1gk19998ojudxrs0ddInte8v> (Word)

<https://ffa.box.com/s/6q20qky8lqg7uqm36ubp8643anleko07> (PDF)

THESE ACTIVITIES ARE ALIGNED TO THE FOLLOWING STANDARDS:

AFNR Performance Element

- CS.01. Analyze how issues, trends, technologies and public policies impact systems in the Agriculture, Food & Natural Resources Career Cluster
- CS.02. Evaluate the nature and scope of the Agriculture, Food & Natural Resources Career Cluster and the role of agriculture, food and natural resources (AFNR) in society and the economy.
- CS.05. Describe career opportunities and means to achieve those opportunities in each of the Agriculture, Food & Natural Resources career pathways.
- CS.06. Analyze the interaction among AFNR systems in the production, processing and management of food, fiber and fuel and the sustainable use of natural resources.
- ESS.03. Develop proposed solutions to environmental issues, problems and applications using scientific principles of meteorology, soil science, hydrology, microbiology, chemistry and ecology.

FFA Precept

- FFA.PL-A.Action: Assume responsibility and take the necessary steps to achieve the desired results, no matter what the goal or task at hand.
- FFA.PL-C.Vision: Visualize the future and how to get there.
- FFA.CS-M.Communication. Effectively interact with others in personal and professional settings.
- FFA.CS-N.Decision Making. Analyze a situation and execute an appropriate course of action.

Common Career Technical Core

- AG1. Analyze how issues, trends, technologies and public policies impact systems in the Agriculture, Food & Natural Resources Career Cluster.
- AG2. Evaluate the nature and scope of the Agriculture, Food & Natural Resources Career Cluster and the role of agriculture, food, and natural resources (AFNR) in society and the economy.
- AG5. Describe career opportunities and means to achieve those opportunities in each of the Agriculture, Food & Natural Resources Career Pathways.
- AG6. Analyze the interaction among AFNR systems in the production, processing, and management of food, fiber, and fuel and the sustainable use of natural resources.

NASDCTE

- AGC09.02. Select, research and examine critical aspects of career opportunities in one or more AFNR career pathways in order to gain an understanding of the breadth of occupations within this cluster.
- AGC10.03. Compare and contrast issues affecting the AFNR industry including biotechnology, employment, safety, environmental and animal welfare to demonstrate an understanding of the trends and issues important to careers in this industry.

Common Core – Reading: Informational Text

- CCSS.ELA-Literacy.RI.9-10.1. Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- CCSS.ELA-Literacy.RI.9-10.2. Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.
- CCSS.ELA-Literacy.RI.9-10.3. Analyze how the author unfolds an analysis or series of ideas or events, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them.

Common Core – Writing

- CCSS.ELA-Literacy.W.9-10.2. Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

Common Core – Speaking and Listening

- CCSS.ELA-Literacy.SL.9-10.2. Integrate multiple sources of information presented in diverse media or formats (e.g., visually, quantitatively, orally) evaluating the credibility and accuracy of each source.
- CCSS.ELA-Literacy.SL.9-10.4. Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.

Common Core – Science & Technical Subjects

- CCSS.ELA-Literacy.RST.9.10.7. Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.
- CCSS.ELA-Literacy.RST.9.10.8. Assess the extent to which the reasoning and evidence in a text support the author's claim or a recommendation for solving a scientific or technical problem.

Common Core – Literacy in Science & Technical Subjects: Writing

- CCSS.ELA-Literacy.WHST.9.10.6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.

Next Generation Science

- HS-ETS1-3. Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts.

Green/Sustainability Knowledge and Skill Statements

- AFNR Career Cluster, Statement 2. Analyze community practice or policy development related to sustainability in AFNR.

AFNR Career Ready Practices

- CRP.04. Communicate clearly, effectively, and with reason. Career-ready individuals communicate thoughts, ideas and action plans with clarity, whether using written, verbal and/or visual methods.
- CRP.05. Consider the environmental, social, and economic impact of decisions. Career-ready individuals understand the interrelated nature of their actions and regularly make decisions that positively impact and/or mitigate negative impact on other people, organizations and the environment.
- CRP.06. Demonstrate creativity and innovation. Career-ready individuals regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization.
- CRP.07. Employ valid and reliable research strategies. Career-ready individuals are discerning in accepting and using new information to make decisions, change practices or inform strategies.
- CRP.08. Utilize critical thinking to make sense of problems and persevere in solving them. Career-ready individuals readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem.

Partnership for 21st Century Skills

- Communication
- Critical Thinking and Problem Solving
- Global Awareness
- Information, Communications, and Technology Literacy
- Think Creatively

LESSON PLAN:

1. *Bell Ringer:* Agriculturists are well suited to be the primary caretakers of the planet, and the need for caretakers is critical. Because the food and fiber industries rely on the efficiency and sufficiency of the world's natural resources, it is vital for the agriculture industry to ensure individuals are equipped with the skills needed to best respect the planet.
 - a. Using the "What Is Respect?" worksheet, define and illustrate what respecting the planet means to you. Think creatively. In what ways can you and your peers, family and teachers help respect the planet?
 - i. Questions included in the worksheet:
 1. Define what respecting the planet means to you.
 2. Illustrate what respecting the planet means to you.
 - ii. Share definitions and illustrations with the class and/or display them in the classroom.
 - b. Think about challenges facing our ability to respect the planet, and discuss how taking steps to support a more sustainable agriculture industry could influence the future.
2. *Introduction:* To understand the impact of challenges facing the planet, we must first understand our individual impact on the environment.
 - a. Examining our carbon footprint is one way to assess our individual impact on the planet.
 - i. Visit the Environmental Protection Agency's (EPA, 2016) "Carbon Footprint Calculator." The URL is <https://www3.epa.gov/carbon-footprint-calculator/>.
 - ii. Estimate your household's average monthly usage of home energy, transportation and waste.
 1. To gain the most accurate information, ask your head of household for your household's average figures for each section.
 - iii. Complete the "Carbon Footprint" worksheet.
 1. After reviewing your report, adjust the figures in the sections to reduce your emissions and note the changes it makes on your overall scores.
 2. Questions included in the worksheet:
 - a. What is your total estimated pounds of CO2 emitted per year? You may need to

- estimate your household's figures or double-check figures with your current head of household to get the most accurate numbers.
 - b. After reviewing your report, what steps could you take to reduce your carbon emission's impact?
 - iv. Discuss your findings with a partner. What surprised you the most? Did any of the findings not surprise you? Why?
- b. One step to respecting the planet is awareness of key issues. Therefore, we need to investigate challenges facing the earth at the global, national and local levels.

3. *Part 1 — Respecting the Planet Globally*

- a. Understanding which challenges the earth faces across the globe gives a broad perspective to how to best respect the planet from an international perspective.
- b. Visit the Website: *Earth.org*, "Top 15 Environmental Issues" (Robinson, 2025) website available at, <https://earth.org/the-biggest-environmental-problems-of-our-lifetime/>
 - 1. Another resource that goes more in-depth on these issues is the United States Environmental Protection Agency's (EPA; 2017) "Environmental Issues" website. The URL is <https://www.epa.gov/environmental-topics>.
 - ii. Review the list of issues facing the globe in the next 10 years.
 - iii. Consider which challenges are most relevant to your passions and/or future careers.
 - iv. Complete and discuss the "Respecting the Planet Globally" worksheet.
 - 1. Questions included in the worksheet:
 - a. After reviewing the list of key issues facing the world, what three issues stood out the most to you? Why?
 - b. Select one issue that stands out to you the most. Research some key statistics about that issue and list its global impact below. Be mindful of which articles or websites you are viewing. Is the website using accurate information to describe the issue? If not, continue researching until you find a website that uses scientific research to describe the issue.
 - c. What can agriculturists do to address the challenge you selected? Think creatively. How can producers or consumers make lifestyle changes to help address the challenge you highlighted?
 - v. Not only do areas around the world face environmental challenges, but respecting the planet also plays a unique role at the national level.

4. *Part 2 — Respecting the Planet Nationally*

- a. Agriculturists are the primary stewards of the land. However, the agriculture industry faces several challenges in order to successfully and efficiently feed the world.
- b. The United States faces unique challenges to respecting the planet, but they all revolve around analyzing how to strengthen and prepare American agriculture to be more efficient and sustainable in production.
 - i. Watch "The Future of Farming and Agriculture" video by The Daily Conversation (2017). The URL is <https://www.youtube.com/watch?v=Qmla9NLFbVU>.
 - 1. If YouTube is not available, visit the UC Davis (2019) website.
 - ii. Visit UC Davis' (2019) "Agricultural Sustainability Institute" website, available at <https://asi.ucdavis.edu/programs/ucsarep/about/what-is-sustainable-agriculture>.
 - iii. Consider the various innovative ideas, practices and technologies you saw in the video and on the website. In what ways can American agriculturists improve and strengthen the way they steward the land?
 - iv. Complete and discuss the "Respecting the Planet Nationally" worksheet.
 - 1. Questions included in the worksheet:
 - a. After watching the video and reviewing the content on the website, what agricultural innovations and ideas stood out as being the most valuable to American agriculture? Why?
 - b. Define *sustainable agriculture*. What can be done to support sustainable production agriculture in the United States? Visit UC Davis' (2019) "Agricultural Sustainability Institute" website for resources to support your answer.
 - c. What solutions can American agriculturists implement to better respect the planet in these areas: conservation, water usage, energy usage and wildlife habitat?
 - v. Viewing the world's and the nation's challenges can seem daunting, but managing the issues is possible by starting at the local level.

5. *Part 3 — Respecting the Planet Locally*

- a. Direct impact to respecting the planet starts with getting involved and invested at the local level. However, the environmental issues vary by region.
 - i. Visit Unity College's (2018) "Brainstorming Ways to Solve Environmental Problems" website, available at <https://online.unity.edu/ways-to-solve-environmental-problems/>.

- ii. Complete and discuss the "Respecting the Planet Locally" worksheet.
 1. Questions included in the worksheet:
 - a. Review the map of American agricultural commodities (Taxomita.com, 2017). What type of agriculture is most prominent in your state?
 - b. Using the EPA website, <https://www.epa.gov/environmental-topics>, identify the three environmental concerns you think impact your state's agricultural production the most.
 - c. Using Unity College's (2018) "Brainstorming Ways to Solve Environmental Problems" website (<https://online.unity.edu/ways-to-solve-environmental-problems/>), list three strategies in agriculture to lessen environmental impact in your state.
6. **Follow-up:** Compare and contrast one challenge or issue to respecting the planet across the three selected regions (global, state and local) in a brief two- to three-minute oral presentation to the class. Students should clearly detail the extent of the challenge or issue as well as pitch a solution to address the selected challenge at one of the levels.
 - a. If time permits, encourage students to use visual aids and/or technology to share their findings.
7. **Leveling Up:**
 - a. "Agriscience Fair Project":
 - i. Read the overview and rules for the National FFA Organization's (2018) Agriscience Fair at [FFA.org/participate/awards/agriscience-fair/](https://www.ffa.org/participate/awards/agriscience-fair/).
 - ii. Identify a need within one of the six agriscience fair categories: animal systems; environmental service/natural resource systems; food products and processing systems; plant systems; power, structural and technical systems; and social science.
 - iii. Using the key elements of respecting the planet as a framework, the National FFA Agriscience Fair handbook and online resources, prepare an agriscience fair project to investigate the identified need.
 - b. "Careers Guest Speaker":
 - i. Identify what types of careers relate to respecting the planet. What types of careers support the mission of sustainable agriculture and innovative ideas to help the environment?
 1. Visit AgExplorer ([AgExplorer.ffa.org](https://www.agexplorer.ffa.org)) and review the career focus areas for ideas of types of careers to choose from.
 - ii. As a class, select someone from the community who has a career that contributes to respecting the planet. Ask the individual to speak to the class to share details about his or her career.
 1. It might be helpful to refer this task to a class committee to select a speaker.
 - iii. Encourage students to research the speaker's bio and business/company/school and prepare two to three questions for the speaker prior to his or her arrival.
 - c. "Elementary School" Presentation:
 - i. Visit the "Recycle City" (Environmental Protection Agency, 2017) website. The URL is <https://www3.epa.gov/recyclecity/information.htm>.
 - ii. Using the resources for teaching elementary students, prepare a presentation to help elementary students understand the impact of recycling and what products are recycled.
 - d. "Farmers for America" Screencast:
 - i. Visit the "Farmers for America" (2019) screencast and trailer narrated by Mike Rowe. The URL is <https://www.leaveitbetter.com/farmers-for-america>.
 - ii. In what ways can your chapter deliver a campaign to help the community get to know your agriculturists or your FFA members?
 1. Develop a social media strategy to share your local message.
 - e. "Four Stages of Innovation" Model:
 - i. Using the "Blue 365: Four Stages of Innovation" lesson plan, have students apply the four stages of innovation model to one of the challenges related to respecting the planet.
 - ii. In what ways could the four stages help raise awareness of the issue?
 - f. "Global, National and Local" Infographic:
 - i. Using the information students researched about respecting the planet at the global, national and local levels, have students create an infographic using two to three statistics at each level.
 1. Students can use blank paper with colored pens or markers for their infographics, or they can use an online infographic generator:
 - a. Piktochart — <https://piktochart.com/formats/infographics/>
 - b. Canva — <https://www.canva.com>
 - g. "Living to Serve" Platform:
 - i. Encourage students to look through available grants for service plans related to respecting the planet. Try to make the connection to local needs and local issues. See links below:
 1. Hunger Health and Nutrition: Living to Serve Grants from National FFA: [FFA.org/livingtoserve/grants/](https://www.ffa.org/livingtoserve/grants/).
 2. Planning Guide: <https://ffa.app.box.com/s/9969na39x2qdv70olfadu3dj1uxae6m>
 - h. "School or Community Service" Project:

- i. Identify a need on the school campus or in the community related to respecting the planet.
 - ii. Organize a community or school drive to help address that need in the local community.
- i. "Ted Talk" Oral Presentations:
 - i. Watch the "Blue 365" (2018) video from Chuck Benson with BASF on "When Common Milkweed Isn't so Common," available at <https://vimeo.com/314092819>.
 - ii. Watch the "Blue 365" (2018) video from Rick Ekins with FMC on "Saving Water, Fuel, Labor and Time," available at <https://vimeo.com/314082126>.
 - iii. Watch the "Blue 365" (2018) video from Dr. Lowell Midla with Merck Animal Health on "Innovation in the Animal Health Industry," available at <https://vimeo.com/315701406>.
 - 1. Using techniques and points from your selected speaker, develop a 12- to 15-minute Ted Talk-style oral presentation to deliver to the class about an issue related to respecting the planet.
 - a. If possible, set your classroom up around a center stage to allow students to speak as if they were giving a real Ted Talk.
- j. "Written Report":
 - i. Watch the "Blue 365" (2018) video from Chuck Benson with BASF on "When Common Milkweed Isn't so Common," available at <https://vimeo.com/314092819>.
 - ii. Watch the "Blue 365" (2018) video from Rick Ekins with FMC on "Saving Water, Fuel, Labor and Time," available at <https://vimeo.com/314082126>.
 - iii. Watch the "Blue 365" (2018) video from Dr. Lowell Midla with Merck Animal Health on "Innovation in the Animal Health Industry," available at <https://vimeo.com/315701406>.
 - 1. Using techniques and points from your selected speaker, prepare an eight- to 10-page written report analyzing opportunities to increase how we feed the world in the future. Students should be sure to highlight the following:
 - a. What is respecting the planet?
 - b. What challenges does the world currently face in terms of respecting the planet?
 - c. What can be done to increase respect for the planet in the future?

8. Exit Ticket: Identify three careers associated with addressing the environmental challenges you have identified.

With a partner, discuss which environmental challenge are you the most passionate about addressing. If you could create any career or job to address that challenge and respect the planet, what would it be? Maybe the career already exists. Visit AgExplorer (AgExplorer.ffa.org) and review the career focus areas.

Discuss your created or selected career idea with a partner. Briefly share your partner's selected challenge and career choice with the class. Make sure to understand why he or she selected that passion and topic to share with the class.

NAME: _____

Aligned to the following standards:
CS.01; CS.02; CS.05; CS.06; ESS.03; FFA.PL-A; FFA.PL-C; FFA.CS.M; FFA.CS-N; AG1;
AG2; AG5; AG6; AGC09.02; AGC10.03; CCSS.ELA.RI.9-10.1; CCSS.ELA.RI.9-10.2;
CCSS.ELA.RI.9-10.3; CCSS.ELA.W.9-10.2; CCSS.ELA.SL.9-10.2; CCSS.ELA.SL.9-10.4;
CCSS.ELA.RST. 9-10.7; CCSS.ELA.RST.9.10.8; CCSS.ELA.WHST.9.10.6; HS-ETS1-3;
AFNR Career Cluster, Statement 2; CRP.04; CRP.05; CRP.06; CRP.07; CRP.08

What Is Respect?

DIRECTIONS:

Agriculturists are well suited to be the primary caretakers of the planet, and the need for caretakers is critical. Because the food and fiber industries rely on the efficiency and sufficiency of the world’s natural resources, it is vital for the agriculture industry to ensure individuals are equipped with the skills needed to best respect the planet.

Define and **illustrate** what respecting the planet means to you. Think creatively. Consider what challenges face the world and what it might look like if people (you, your peers, family, teachers, etc.) took steps to address them.

Define what *respecting the planet* means to you: _____

Illustrate what *respecting the planet* means to you:

NAME: _____

Aligned to the following standards:
CS.01; CS.02; CS.05; CS.06; ESS.03; FFA.PL-A; FFA.PL-C; FFA.CS.M; FFA.CS-N; AG1;
AG2; AG5; AG6; AGC09.02; AGC10.03; CCSS.ELA.RI.9-10.1; CCSS.ELA.RI.9-10.2;
CCSS.ELA.RI.9-10.3; CCSS.ELA.W.9-10.2; CCSS.ELA.SL.9-10.2; CCSS.ELA.SL.9-10.4;
CCSS.ELA.RST.9-10.7; CCSS.ELA.RST.9.10.8; CCSS.ELA.WHST.9.10.6; HS-ETS1-3;
AFNR Career Cluster, Statement 2; CRP.04; CRP.05; CRP.06; CRP.07; CRP.08

Carbon Footprint

DIRECTIONS:

To understand the impact of challenges facing the planet, we must first understand our individual impact on the environment. Examining our carbon footprint is one way to assess our individual impact on the planet.

Complete the following:

- Visit the Environmental Protection Agency's (EPA; 2016) "Carbon Footprint Calculator" website. The URL is <https://www3.epa.gov/carbon-footprint-calculator/>.
- Estimate your household's average monthly usage of home energy, transportation and waste.
 - a. To gain the most accurate information, ask your head of household for your household's average figures for each section.
- Complete the following questions about your carbon footprint.
 - a. After reviewing your report, adjust the figures in the sections to reduce your emissions and note the changes it makes on your overall scores.

What is your total estimated pounds of CO₂ emitted per year? You may need to estimate your household's figures or double-check figures with your current head of household to get the most accurate numbers.



Home Energy: _____



Transportation: _____



Waste: _____

After reviewing your report, what steps could you take to reduce your carbon emission's impact?



What surprised you the most? Did any of the findings not surprise you? Why?

NAME: _____

Aligned to the following standards:
CS.01; CS.02; CS.05; CS.06; ESS.03; FFA.PL-A; FFA.PL-C; FFA.CS.M; FFA.CS-N; AG1;
AG2; AG5; AG6; AGC09.02; AGC10.03; CCSS.ELA.RI.9-10.1; CCSS.ELA.RI.9-10.2;
CCSS.ELA.RI.9-10.3; CCSS.ELA.W.9-10.2; CCSS.ELA.SL.9-10.2; CCSS.ELA.SL.9-10.4;
CCSS.ELA.RST.9-10.7; CCSS.ELA.RST.9.10.8; CCSS.ELA.WHST.9.10.6; HS-ETS1-3;
AFNR Career Cluster, Statement 2; CRP.04; CRP.05; CRP.06; CRP.07; CRP.08

Respecting the Planet Globally

DIRECTIONS:

Understanding which challenges the earth faces across the globe gives a broad perspective to how to best respect the planet from an international perspective.

Complete the following:

- Visit the Website: *Earth.org*, "Top 15 Environmental Issues" (Robinson, 2025) website, available at, <https://earth.org/the-biggest-environmental-problems-of-our-lifetime/>
 - a. Another resource that explains these issues more in-depth is the United States Environmental Protection Agency's (EPA, 2017) "Environmental Issues" website. The URL is <https://www.epa.gov/environmental-topics>.
- Review the list of issues facing the globe in the next 10 years.
- Consider which challenges are most relevant to your passions and/or future career.
- Complete and discuss the "Respecting the Planet Globally" questions below.

After reviewing the list of key issues facing the world, what three issues stood out the most to you? Why?



Select one issue that stands out the most. Research and list four key statistics about your selected issue and list its global impact below. Note: Be mindful of which articles or websites you are viewing. Is the website using accurate information to describe the issue? If not, continue researching until you find a website that uses scientific research to describe the issue.

What can agriculturists do to address the challenge you selected? Think creatively. How can producers or consumers make lifestyle changes to help address the challenge you highlighted?

NAME: _____

Aligned to the following standards:

CS.01; CS.02; CS.05; CS.06; ESS.03; FFA.PL-A; FFA.PL-C; FFA.CS.M; FFA.CS-N; AG1; AG2; AG5; AG6; AGC09.02; AGC10.03; CCSS.ELA.RI.9-10.1; CCSS.ELA.RI.9-10.2; CCSS.ELA.RI.9-10.3; CCSS.ELA.W.9-10.2; CCSS.ELA.SL.9-10.2; CCSS.ELA.SL.9-10.4; CCSS.ELA.RST.9-10.7; CCSS.ELA.RST.9.10.8; CCSS.ELA.WHST.9.10.6; HS-ETS1-3; AFNR Career Cluster, Statement 2; CRP.04; CRP.05; CRP.06; CRP.07; CRP.08

Respecting the Planet Nationally

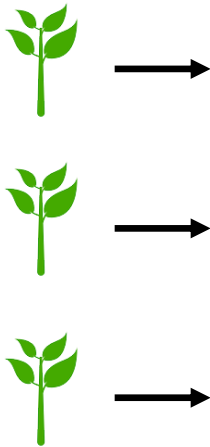
DIRECTIONS:

Agriculturists are the primary stewards of the land. However, the agriculture industry faces several challenges to be able to successfully and efficiently feed the world. The United States faces unique challenges to respecting the planet, but they all revolve around analyzing how to strengthen and prepare American agriculture to be more efficient and sustainable in production.

Complete the following:

- Watch "The Future of Farming and Agriculture" video by The Daily Conversation (2017). The URL is <https://www.youtube.com/watch?v=Qmla9NLFBvU>.
 - a. If YouTube is not available, move to the next bullet point.
- Visit UC Davis' (2019) "Agricultural Sustainability Institute" website, available at <https://asi.ucdavis.edu/programs/ucsarep/about/what-is-sustainable-agriculture>.
- Consider the various innovative ideas, practices and technologies you saw in the video and on the website. In what ways can American agriculturists improve and strengthen the way they steward the land?
- Complete and discuss the "Respecting the Planet Nationally" questions below.

After watching the video and reviewing the content on the website, what agricultural innovations and ideas stood out as being the most valuable to American agriculture? Why?



Define *sustainable agriculture*. What can be done to support sustainable production agriculture in the United States? Visit UC Davis' (2019) "Agricultural Sustainability Institute" website for resources to support your answer.

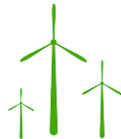
What solutions can American agriculturists implement to better respect the planet in the areas below? (Record your answers below the images for each area.)



Conservation:



Water Usage:



Energy Usage:



Wildlife Habitat

NAME: _____

Aligned to the following standards:

CS.01; CS.02; CS.05; CS.06; ESS.03; FFA.PL-A; FFA.PL-C; FFA.CS.M; FFA.CS-N; AG1; AG2; AG5; AG6; AGC09.02; AGC10.03; CCSS.ELA.RI.9-10.1; CCSS.ELA.RI.9-10.2; CCSS.ELA.RI.9-10.3; CCSS.ELA.W.9-10.2; CCSS.ELA.SL.9-10.2; CCSS.ELA.SL.9-10.4; CCSS.ELA.RST.9-10.7; CCSS.ELA.RST.9.10.8; CCSS.ELA.WHST.9.10.6; HS-ETS1-3; AFNR Career Cluster, Statement 2; CRP.04; CRP.05; CRP.06; CRP.07; CRP.08

Respecting the Planet Locally

DIRECTIONS:

Direct impact to respecting the planet starts with getting involved and invested at the local level. However, the environmental issues vary based on the part of the country in which you live.

Review the map of American agricultural commodities (Taxomita.com, 2017).



In your opinion, what type of agriculture is most prominent in your state?

Using the EPA website, <https://www.epa.gov/environmental-topics>, identify three environmental concerns you think impact your state's agricultural production the most.

Using Unity College's (2018) "Brainstorming Ways to Solve Environmental Problems" website (<https://online.unity.edu/ways-to-solve-environmental-problems/>), list three strategies in agriculture to lessen environmental impact in your state.

1)

2)

3)