

name: \_\_\_\_\_

date: \_\_\_\_\_

class: \_\_\_\_\_

Welcome, teachers, to your guide for successful student completion of the Plant Science Student-Led Assignment, a webquest designed to help your students become more aware of the science behind successful growth and development of plants. Your students will want to save a copy of this assignment to a cloud storage platform, flash drive or computer. They will follow your directions for submission of their assignment.

Before students begin this activity, they will need a computer with internet access and a writing utensil. Students will complete the assignment by visiting each of the linked items and answering the following questions.

### Activity 1: Learn about careers in the industry

Students watch [this video \(grownextgen.org/career-videos/video/biotechnology/\)](https://grownextgen.org/career-videos/video/biotechnology/) about a variety of careers in biotechnology utilizing knowledge in plant science.

1. What is one of the newest products developed by DuPont Pioneer?
  - Hybrid Corn Seed
  - Plenish Soybean Oil
  - Plenty Corn Oil
  - Plenish Cottonseed Oil
2. In what year did farmers in Ohio begin growing soybeans with high-oleic traits?
  - 2016
  - 2015
  - 2014
  - 2013
3. High Oleic Oils have more heart-healthy fats than other oils.
  - True
  - False
4. List two careers in agriculture suggested at the end of this video.

***Any of these are correct: Agronomist, Farmer, Grain Handler, Oil Processor, Food science, Seed Salesman, Researcher, Information Technology, Chef, Seed Scientist.***

### Extension activities

- Additionally, you can utilize [this discussion guide \(grownextgen.org/workspace/uploads/files/plant-systems-and-plant-science-careers-discussion-guide.pdf\)](https://grownextgen.org/workspace/uploads/files/plant-systems-and-plant-science-careers-discussion-guide.pdf) with your students for the Food Science course videos.
- Students complete [this activity \(grownextgen.org/workspace/uploads/files/afnr-plant-career-pathways.pdf\)](https://grownextgen.org/workspace/uploads/files/afnr-plant-career-pathways.pdf) to explore careers in this industry:

## Activity 2: Explore the industry

Students can complete the **“Modern Agricultural Practices” e-learning course** ([elearning.grownextgen.org/](http://elearning.grownextgen.org/)) to gain background knowledge about this topic. The course explores how farmers are continuously improving their agricultural practices in order to increase yield and be good stewards of resources like water, land and energy.

1. Record five things you learned from the e-learning course:

***Answers will vary.***

2. In what ways have new agricultural production practices helped us to prepare for feeding 9 billion people by 2050? Use specific examples from the e-learning course.

***Answers will vary.***

3. What would you tell a consumer about the industry after completing the e-learning course?

***Answers will vary.***

4. Did your opinion change about the plant science industry after completing the e-learning course? Why or why not? Be specific.

***Answers will vary.***

## Activity 3: Share your knowledge

In order to assess the information you learned from the previous activities, complete the activity below:

*You have just begun to explore aspects of the plant science sector of the agricultural industry. To determine how much you learned from this activity, you will design a “Public Service Announcement” to educate consumers about this sector of the agricultural industry. Examples of topics might include:*

- *Why agricultural practices in plant science are safe for consumers*
- *What is being done to feed the growing number of consumers*
- *Give information about biotechnology*
- *Talk about career opportunities in the field*

*To develop your announcement, utilize paper and art supplies to show knowledge you gained from this activity. You will be graded for neatness, accuracy of information, and creativity.*

## Activity 4: Optional hands-on activities

You can help students complete **additional activities** ([grownextgen.org/curriculum/unit/afnr-plant-systems/](http://grownextgen.org/curriculum/unit/afnr-plant-systems/)) to bring this information to life with you students using lessons from GNG.