

name: _____

date: _____

class: _____

Welcome, teachers, to your guide for successful student completion of the Food Science Student-led Assignment, a webquest designed to help your students become more aware of the science behind successful food product development. 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](https://grownextgen.org/career-videos/video/food-science/) (grownextgen.org/career-videos/video/food-science/) about a variety of careers in food science at T. Marzetti's in Columbus, OH. After watching, students will answer the following questions:

1. What are the areas of the food science industry you can get involved with?

Food retail, ag production, chemistry, safety, consumer affairs

2. What does the "QA" Department do?

Tests to ensure the quality of products produced

3. What does the Regulation Department do?

Deals with labels and claims made on food products

4. What percent increase will jobs in this area have between 2010-2020?

10%

Activity 2: Explore the industry

Complete the “**Food Science and Technology**” e-learning course (elearning.grownextgen.org) to improve your background knowledge about this topic. This course walks you through the basics of the food industry, including food labels, soybean use in food products, and the impact of food on our health. After completing the e-learning course, answer the following questions:

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

Answers will vary.

2. In what ways has the growing population of the world impacted the Food Science industry?

Answers will vary.

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

Answers will vary.

4. Did your opinion change about food science/food products completing the e-learning course? Why or why not? Be specific.

Answers will vary.

Activity 3: Share your knowledge

Students complete the activity below to explore careers in this industry and the varying levels of education required, from a high school diploma to a graduate school degree. Students will select a specific career to explore and create a poster. For students’ successful completion, you would want to have the chart referred to in the assignment either printed out or drawn on a white board. You also want to have suggested resources for students to utilize in their project. grownextgen.org could be one of those resources, as well as ohiomeansjobs.com.

Student activity: Complete the activity below to explore, in more detail, careers in this industry and the varying levels of education required, from a high school diploma to a graduate school degree. As a part of the assignment, you will select a specific career to explore. Create an 8½" × 11" poster to share with your classmates.

1. Research one of the careers related to food sciences. Include aspects of the career such as salary, education, general description, job outlook, etc.

- Flavor Chemist
- Food Biotechnologist
- Food Chemist
- Food Engineer
- Food Ingredient Sales
- Food Inspector
- Food Microbiologist
- Food Product Developer
- Food Safety Inspector
- Food Technologist
- Food Toxicologist
- Laboratory Director
- Market Researcher
- Meat Scientist
- Natural Products Researcher
- Packaging Specialist
- Public Health Official
- Quality Assurance Manager
- Sensory Evaluation Expert
- Sensory Scientist
- Technical Sales Representative

2. Record your information on a poster. (Use the rubric to be sure you have included all aspects required.) Include: *description, salary, educational requirements/skills needed, occupational outlook, and an example of a task that person might do.*
3. Present your findings and research to the class Think of categories you could use to rate these careers. (i.e. salary range, level of education required, amount of creativity involved, etc.)

Here is the rubric with which your instructor will score your assignment:

	4	3	2	1
Required elements for career poster	The poster includes all required elements as well as additional information.	All required elements are included on the poster.	All but 1 of the required elements are included on the poster.	Several required elements were missing.
Labels	All items of importance on the poster are clearly labeled with labels that can be read from at least 3 ft. away.	Almost all items of importance on the poster are clearly labeled with labels that can be read from at least 3 ft. away.	Many items of importance on the poster are clearly labeled with labels that can be read from at least 3 ft. away.	Labels are too small to view or no important views were labeled.
Graphics: relevance	All graphics are related to the topic and make it easier to understand. All borrowed graphics have a source citation.	All graphics are related to the topic and most make it easier to understand.	All graphics relate to the topic. One or two borrowed graphics have a source citation.	Graphics do not relate to the topic or several borrowed graphics do not have a source citation.
Attractiveness	The poster is exceptionally attractive in terms of design, layout, and neatness.	The poster is attractive in terms of design, layout, and neatness.	The poster is acceptably attractive though it may be a bit messy.	The poster is distractingly messy or very poorly designed. It is not attractive.
Grammar	There are no grammatical/mechanical mistakes on the poster.	There are 1–2 grammatical/mechanical mistakes on the poster.	There are 3–4 grammatical/mechanical mistakes on the poster.	There are more than 4 grammatical/mechanical mistakes on the poster.