

**NM** Public Education Department

# SCIENCE OF FOOD PRODUCTS AND FOOD PROCESSING

END-OF-COURSE EXAM | GRADE 9-12 | YEAR 17-18

ASSESSMENT BLUEPRINT

# Purpose Statement

## Science of Food Products and Food Processing

The Science of Food Products and Food Processing End-of-Course Exam is designed to measure student proficiency of the standards and performance elements aligned to the Common Career Technical Core Standards ([https://cte.careertech.org/sites/default/files/CCTC\\_Standards\\_Formatted\\_2014.pdf](https://cte.careertech.org/sites/default/files/CCTC_Standards_Formatted_2014.pdf)). This course-level exam is provided to all students who have completed Science of Food Products and Food Processing.

**This exam can be given for the following STARS course code:**

0173 - Science of Food Products and Food Processing

Intended as a final exam for the course, this is a summative exam covering a wide range of content, skills, and applications. Scores are reported to the teacher, school, district, and state levels for the purposes of student grades, curriculum review, and NMTeach summative reports.

### **New Mexico State University College of Agriculture, Consumer and Environmental Sciences**

This blueprint was developed and piloted in 2016 by the New Mexico State University's (NMSU) Secondary Agriculture Education Office (<http://aces.nmsu.edu/>) in partnership with New Mexico agriculture educators. NMSU uses test items with consent from MYCaert, Inc. (<http://www.mycaert.com>). MyCaert has given copyright permissions to the New Mexico Public Education Department (NMPED).

### **Sample Questions**

The NMPED has released sample items (prior test exam questions in the test bank) for each performance element. Due to a limited item bank, only five, EOC specific, sample questions have been provided on the blueprint. The depth of knowledge (DOK) level has also been identified for each sample question.

## Blueprint Table—Science of Food Products and Food Processing

REPORTING CATEGORY	STANDARD	PERFORMANCE ELEMENT
<b>Food Products &amp; Processing Systems</b>	<b>AG-FD.1</b>	<p><b>Performance Element:</b> Develop and implement procedures to ensure safety, sanitation and quality in food product and processing facilities.</p> <p><b>Sample Question:</b> What is integrated pest management (IPM)?</p> <p>A. IPM is the process of rotating chemical use to limit resistance. B. IPM is the use of multiple methods to control pests. * C. IPM is the use of no-till farming to control pests. D. IPM is considered an organic means of pest control.</p> <p>DOK 1</p>
	<b>AG-FD.2</b>	<p><b>Performance Element:</b> Apply principles of nutrition, biology, microbiology, chemistry and human behavior to the development of food products.</p> <p><b>Sample Question:</b> Which food process involves the growth of beneficial microorganisms as a part of the product development?</p> <p>A. dehydration B. fermentation * C. freeze drying D. rehydration</p> <p>DOK 1</p>
	<b>AG-FD.3</b>	<p><b>Performance Element:</b> Select and process food products for storage, distribution and consumption.</p> <p><b>Sample Question:</b></p>

REPORTING CATEGORY	STANDARD	PERFORMANCE ELEMENT
		<p>Which of the following is the complete destruction of all microorganisms?</p> <p>A. sterilization *</p> <p>B. freeze drying</p> <p>C. irradiation</p> <p>D. pasteurization</p> <p>DOK 1</p>
	<b>AG-FD.4</b>	<p><b>Performance Element:</b> Explain the scope of the food industry and the historical and current developments of food products and processing.</p> <p><b>Sample Question:</b> Consumers recognize that production agriculture provides food and fiber for survival, but tend to forget the third basic need produced by the agriculture industry. What is that third basic need?</p> <p>A. shelter *</p> <p>B. grain</p> <p>C. meat</p> <p>D. milk</p> <p>DOK 1</p>
<b>Agribusiness Systems</b>	<b>AG-BIZ.1</b>	<p><b>Performance Element:</b> Apply management planning principles in AFNR businesses.</p> <p><b>Sample Question:</b> What is the primary component of a food promotion campaign?</p> <p>A. advertising *</p> <p>B. sales meetings</p> <p>C. package design</p> <p>D. sensory testing</p> <p>DOK 1</p>

REPORTING CATEGORY	STANDARD	PERFORMANCE ELEMENT
	<b>AG-BIZ.4</b>	<b>Performance Element:</b> Develop a business plan for an AFNR business.

<b>Science of Food Products and Food Processing EoC Reporting Category Alignment Framework</b>					
<b>Reporting Category</b>	<b>Standard</b>	<b>DOK (Count by DOK)</b>			<b>Grand Total</b>
		<b>1</b>	<b>2</b>	<b>3</b>	
Food Products & Processing Systems	AG-FD.1	2	5	7	14
	AG-FD.2	8	7	1	16
	AG-FD.3	4	2		6
	AG-FD.4	2	9		11
Agribusiness Systems	AG-BIZ.1	2	5		7
	AG-BIZ.4		1		1
<b>Total</b>		<b>18</b>	<b>29</b>	<b>8</b>	<b>55</b>