

2023 Instructional Material Summer Review Institute
Review Team Appraisal of Title
Grades 7-12 Career and Technical Education

This appraisal form is provided for use by educators responsible for the selection of instructional materials for implementation with districts and charter schools across New Mexico to meet the need of their student populations.

[NMPED Adoption Information](#)

Text Title	Exploring Agriscience, 5E - Student Edition + MindTap 6-year Access	Publisher	Cengage Learning Inc.
SE ISBN	9781337426435	TE ISBN	
SW ISBN	9781305949836	Grade Level/Content	9-12 CTE

Core Instructional Material Designation (Core instructional material (CIM) is the comprehensive print and/or digital educational material, including basal material, which constitutes the necessary instructional components of a full academic course of study in those subjects for which the department has adopted content standards and benchmarks.)

Recommended
(90% and above)

**Recommended with
Reservations** (80-89%)

**Not Recommended and
Not Adopted**
(below 80%)

Total Score - The final score for the materials is averaged between the team of reviewers.

Average Score

81%

Cultural and Linguistic Relevance Recognition - Materials are reviewed for relevant criteria pertaining to the support for teachers and students in the material regarding cultural relevance and the inclusion of a culturally responsive lens. Those materials receiving a score of 85% or above on the CLR portion of the review are recognized as culturally and linguistically relevant.

CLR Recognized

Average Score

76%

FOCUS AREA 3 CULTURAL AND LINGUISTIC PERSPECTIVES AND RESPONSIVENESS:

Instructional materials represent a variety of cultural and linguistic perspectives and highlight diversity in culture and language through multiple perspectives.

Statements of appraisal and supporting evidence:

Instructional materials provide some linguistic perspective by providing an English and Spanish vocabulary glossary for students. The materials briefly mention global contributors to Agribusiness and have a couple of images that reflect that country. However, the overall textbook imagery does not fully represent an inclusive, diverse population to reflect various cultures and backgrounds. Some activities support student affirmation by having them interview community members and use their community and/or state as a means of data for an activity.

CTE Standards Review - Materials are reviewed for alignment with the state adopted content standards, benchmarks and performance standards.

Average Score
58%

OVERALL ALIGNMENT

Materials align with the CTE standards overall, including strands 1-10: Academic Foundations; Communications; Problem Solving and Critical Thinking; Information Technology Applications; Systems; Safety, Health, and Environmental Management; Leadership and Teamwork; Ethics and Legal Responsibilities; Employability and Career Development; and Technical Skills.

Statements of appraisal and supporting evidence:

The instructional materials provide students with a minimal foundation of introductory information on AgriSciences and its career options. The student workbook/lab manual is heavy on science, mathematics and problem solving labs and experiments. Each chapter provides bold vocabulary words, is easily divided into lesson topics and provides images to supplement text. Each chapter concludes with a brief summary, multiple choice review questions, discussion questions and student activity questions. The OL resources provide students with career readiness skills such as resumé building and using some computer functions. Students are not presented with opportunities to actually earn any certifications.

STRAND ALIGNMENT

Materials align with specific CTE content strands. (Optional)

Strand:	<i>Statements of appraisal and supporting evidence:</i>
Information Technology Applications	The materials do not sufficiently give students opportunities to create, integrate, manage or share digital information. There are no opportunities for students to create or use databases or spreadsheets. A few activities make use of word processors.
Safety, Health, and Environmental Management	The instructional materials provide limited safety management techniques. There is little evidence of OSHA regulations. The students are not required to create a safety plan. There is no opportunity for students to create a disaster preparedness plan.
Employability and Career Development	The Companion Site student resources thoroughly address employability and career development, positive work behaviors and problem solving difficult situations. Students develop a career plan and goals. They also write a resumé.
Choose CTE Content Strand (optional)	
Choose CTE Content Strand (optional)	

CCTC Standards Review - Materials are reviewed for alignment with the state adopted Common Career Technical Core Career Cluster and Career Pathway standards.

Average Score
96%

OVERALL ALIGNMENT

Materials align with the CCTC standards.

Statements of appraisal and supporting evidence:

The instructional materials provide an introductory scope of the AFNR pathway. They provide an overview of the world of agriculture and its history then moves onto summaries of both animal and plant science careers. The summaries provide possible careers and the pathways needed to become a professional. There are chapters on environmental science and the use of SAE projects in career development; the importance of sustainability practices in soil and water use is introduced in multiple chapters of study. The student workbook provides rigorous labs with hands on applications of science methods. Student labs are varied with applications in both plant and animal science.

CAREER CLUSTER

Materials align to the CCTC standards for the Career Cluster reviewed.

Statements of appraisal and supporting evidence:

The instructional materials provide an introductory overview of various careers throughout the agricultural industry. Students are presented with career information in all the systems; Agribusiness, Animal, Environmental, Food Products & Processing, Natural Resources, Plant and Power, Structural & Technical. Material activities have students identify different careers for the industry and research the qualifications/education needed as well as where and how they may advance their careers. The instructional material highlights the student career technical organization FFA and the career readiness benefits it provides. Student members of FFA are given opportunities to work toward earning their SAE (Supervised Agricultural Experience) awards in various categories.

CAREER PATHWAY(s)

Materials align to the CCTC standards for the Career Pathway reviewed.

Statements of appraisal and supporting evidence:

The instructional materials are properly aligned with the Food Products & Processing Systems Pathway, Natural Resources Systems Career Pathway, and the Plant Systems Career Pathway. Students apply principles of nutrition, microbiology, biology, chemistry, and human behavior in agriscience. The labs provide opportunities for students to develop and implement crop management techniques. The Plant Career Pathway is addressed in the materials covering topics such as soils, nursery production, landscape design, biotechnology, plant propagation, fruit and nut production, forestry, and many others.

CTE Content Review - Materials are reviewed against relevant criteria pertaining to the support for teachers and students in the specific content area reviewed.

Average Score

92%

FOCUS AREA 1 SEQUENCING AND ARTICULATION

Instructional materials show sequencing and articulation within and across grade bands and/or pathways.

Statements of appraisal and supporting evidence:

The instructional materials provide a list of chapter topics in the beginning of the textbook; however, they do not provide the teacher with a lesson/unit pacing timeline resource for each unit. The overall information reflects a vertical alignment in content. The lab activities in the student workbook support and build upon the lessons provided in the textbook.

FOCUS AREA 2 ENGAGING INSTRUCTION

Instructional materials are engaging for students.

Statements of appraisal and supporting evidence:

The materials provide multiple companion pieces to engage students in the objectives of the units of study. There are student activities in the workbook that provide hands on practices. These allow for student problem solving and integration of science methods. PowerPoints, interactive text, and online assessments are available in the online component. The topic of career readiness is taught in the text, student workbook and online companion site. The teacher online companion has a separate interactive soft-skills unit that can be assigned to students through the interactive Cengage application called Mindtap.

FOCUS AREA 3 CAREER DEVELOPMENT

Instructional materials provide career development information for students.

Statements of appraisal and supporting evidence:

The online materials provide students with career exploration. The student edition, student workbook, and the online materials require students to interview several professionals in the agriculture industry. The students develop a career plan including their professional development goals. The students also write a resumé. Various chapters provide students with a list of qualifications needed to pursue specific job titles as well as various degree plans.

FOCUS AREA 4 TECHNOLOGY

Instructional materials incorporate opportunities to use industry appropriate technology.

Statements of appraisal and supporting evidence:

The instructional materials incorporate some opportunities for students to actually use and demonstrate some industry tools, such as various hand tools, small engines within machinery as well as basic computer applications. Many activities ask for students to use the internet as a research tool. There are several chapters that discuss the use of various technologies that are used in AgriScience such as biotechnologies for breeding, crop management and food processing.

All Content Review - Materials are reviewed against relevant criteria pertaining to the support for teachers and students in the material regarding the progression of the standards, pacing, assessment, individual learners, and cultural and linguistic relevance and responsiveness.

CLR Recognition Average Score	Average Score
76%	76%

FOCUS AREA 1 RESOURCES AND SUPPORTS FOR TEACHERS AND STUDENTS:
Instructional materials provide teacher resources to support planning and supports for all students.
Statements of appraisal and supporting evidence:

The materials provide a list of lessons in the teacher and student edition. The teacher edition online companion provides downloadable lesson plans. These plans give estimated times for each topic; however, cross-referencing of standards is not there. There is opportunity for students to use digital tools through the online portion of the curriculum. Vocabulary is bolded within the textbook and glossaries are available in the book and online site. These glossaries are in English and Spanish. There are options for small and large group instruction. Student activities can be modified by the instructor. The online teacher edition can be modified to add or subtract units of study. The student online component provides students with the opportunity to highlight text and create vocabulary flash cards; a reader is available as well. Students can take notes in the online site, too. The resources do not directly address special student populations.

FOCUS AREA 2 ASSESSMENT
Instructional materials offer teachers a variety of assessment resources and tools to collect ongoing data about student progress related to the standards.
Statements of appraisal and supporting evidence:

The instructional materials offer several assessment resources, such as labs, discussion questions, multiple choice questions, true/false questions, and student learning activities. There are a few project-based learning assignments. The online resources provide an online gradebook that is visible to students.

FOCUS AREA 3 CULTURAL AND LINGUISTIC PERSPECTIVES AND RESPONSIVENESS
Instructional materials represent a variety of cultural and linguistic perspectives and highlight diversity in culture and language through multiple perspectives.
Statements of appraisal and supporting evidence:

Instructional materials provide some linguistic perspective by providing an English and Spanish vocabulary glossary for students. The materials briefly mention global contributors to Agribusiness and have a couple of images that reflect that country. However, the overall textbook imagery does not fully represent an inclusive, diverse population to reflect various cultures and backgrounds. Some activities support student affirmation by having them interview community members and use their community and/or state as a means of data for an activity.

Reviewers' Professional Summary - These materials are reviewed by Level II and Level III educators from across New Mexico. The reviewers have brought their knowledge, experience and expertise into the review of these materials. They offer here their individual summary of the material as a whole.

Reviewer #: A-1

Background and experience:

My background and experience includes a BS in Agriculture with a focus on Horticulture, and an MA in Agricultural Extension and Education. I have endorsements in Agriculture, Science, and Vocational Education. For 23 years, I have taught Horticulture and Science in alternative high school settings, specializing in hands-on education and working with at-risk youth. I currently manage a 30' x 60' greenhouse and a school garden and facilitate dual-credit student education.

Professional summary of material:

The Cengage Exploring Agriscience textbook and accompanying resources are strong in the content of Agriscience. The student workbook provides consistent opportunities to apply science, math and English skills to lab exercises. The textbook provides end of chapter review assessments in the form of true/false questions, multiple choice, discussion questions and student learning activities. The online portion of the title is interactive, allowing students to create flashcards, highlight text and, if needed, use a reader. There are downloadable resources for students on Career Readiness. This resource is comprehensive in describing workplace interactions, positive work traits, goal creation and contains a segment on writing and interviewing for employment. This separate downloadable module has separate downloadable activities or assignments. There are downloadable PowerPoint presentations to go along with the text, also found at the companion site. The material meets many of the CTE Standards, but has deficiencies. The materials do not lead students through complete training or certification toward employment; students do not complete activities to interpret verbal and nonverbal cues; personal information management systems are not introduced for workplace efficiency; and the application of information technology tools is not taught. I liked the text and workbook, but the text does not seem to be written to the same level learner as the student workbook. The labs are challenging and might be difficult with large groups. I liked the plant science content and labs. I would recommend with reservations this instructional material for an introduction to agriscience course.

Reviewer #: 2

Background and experience:

I am a Level II CTE teacher with sixteen years of teaching experience. I have a Bachelor's of Occupational Education. I have twelve years of experience as CTE department chair. I hold several CTE certifications.

Professional summary of material:

The material provides a foundation of introductory curriculum on Agriscience. There is a strong emphasis on science and multiple lab opportunities for students in the student workbook. Both the online and the printed textbook provide students with an English/Spanish vocabulary glossary. However, the online resources are difficult to navigate. The standards are not vertically aligned throughout the resources. Options for differentiation for special populations are not provided. The instructional materials have students develop a comprehensive career plan with professional development goals. The students also prepare a resumé. If you are looking for a heavily science based curriculum with great lab options, I recommend with reservations Exploring Agriscience by Cengage Learning Inc.

Reviewer #: #3

Background and experience:

I have been a CTE ProStart (Culinary Arts/ Hospitality) Teacher for the last 9 years. I am a Level II Teacher. My background includes 18 years of restaurant industry experience in various positions, which include restaurant management and catering. I hold a BA in Business Management and Human Resources. I am a Certified Secondary Food Service Educator as well as a Certified Servsafe Instructor and Proctor.

Professional summary of material:

The Cengage Exploring AgriScience print materials, teacher and student online resources, student lab manual workbook and online career module provide a minimal foundation of introductory information on agriculture as a whole. The textbook provides vertically aligned content information, discussion questions, review questions, and activities. Many activities are low in rigor and focus on understanding rather than applying. The student lab manual workbook provides more rigorous activities/experiments that have an emphasis in science and math. The online career module provides basic information on seeking and maintaining a job, workplace relationships, and basic computer applications. The teacher and student online resources are somewhat difficult to navigate. The online student site provides language supports such as highlighting, a reader option and a flashcard creator. There are no teacher resources for lesson accommodations and/or alternatives for special learners. There are also no lesson plan resources with a clear outline of objectives and what standards are addressed in each lesson/unit. The overall textbook does not represent diverse ethnicities, cultures and backgrounds very well.