



TEKS CORRELATIONS & SUGGESTED PACING GUIDE

Food Science



iCEV Agricultural Science Site

Meets 100% of TEKS

237 days of teaching material

Scope & Sequence	Lesson Title	TEKS	Days of Teaching
1	Scientific Procedures & Safety	2.A.i; 2.A.ii; 3.A.i; 3.A.ii; 3.B.i; 3.B.ii; 3.B.iii; 3.C.i; 3.C.ii; 3.C.iii; 3.C.iv; 3.C.v; 3.C.vi; 3.D.i; 3.E.i; 3.E.ii; 3.E.iii; 3.E.iv; 3.E.v; 3.E.vi; 3.E.vii; 3.E.viii; 3.E.ix; 3.E.x; 3.E.xi; 3.E.xii; 3.E.xiii; 3.E.xiv; 3.E.xv; 3.E.xvi; 3.E.xvii; 3.E.xviii; 3.E.xix; 3.E.xx; 3.E.xxi; 3.E.xxii; 3.F.i; 3.F.ii; 3.F.iii; 3.F.iv; 3.F.v; 3.F.vi; 3.F.vii; 3.F.viii; 3.F.ix; 3.F.x; 3.G.i; 3.G.ii; 3.G.iii; 3.G.iv; 3.H.i; 4.A.i; 4.A.ii; 4.A.iii; 4.A.iv; 4.A.v; 4.A.vi; 4.A.vii; 4.A.viii; 4.A.ix; 4.A.x; 4.A.xi; 4.A.xii; 4.A.xiii; 4.A.xiv; 4.A.xv; 4.B.i; 4.B.ii; 4.C.i; 4.C.ii; 4.D.i; 4.D.ii; 4.E.i; 4.F.i; 4.F.ii; 4.F.iii; 4.F.iv	8
2	Scientific Principles: Chemical Properties	5.A.i; 5.A.ii; 5.A.iii; 5.A.iv; 7.A.i; 7.A.ii; 7.A.iv; 7.C.i; 7.C.ii; 7.C.iii; 7.D.i; 7.D.ii; 10.A.i; 10.B.i; 10.C.i; 13.D.i	6
3	Scientific Principles: Solutions & Emulsions	7.A.iii; 7.B.i; 8.A.i; 8.A.ii; 8.B.i; 8.B.ii; 8.C.i; 8.D.i; 8.E.i; 8.F.i	3
4	Scientific Principles: Enzymes	9.A.i; 9.B.i; 9.C.i; 9.D.i	4
5	Acids & Bases in Food Science	5.A.i; 5.A.ii; 5.A.iii; 5.A.iv; 5.B.i; 5.B.ii; 5.B.iii	7
6	Chemical Processes in Food Science	10.A.i; 10.B.i; 10.C.i; 11.A.i; 11.A.ii; 11.B.i; 11.C.i; 11.D.i; 11.E.i; 14.E.i; 18.D.ii; 18.E.i; 18.F.i	6
7	The Science in Food Handling & Storage	6.A.i; 12.A.i; 12.B.i	8
8	The Science in Food Preservation	6.C.i; 18.E.i; 19.A.i; 19.B.i; 21.A.i; 21.B.i; 21.B.ii; 21.C.i; 21.C.ii; 21.D.i; 21.D.ii	4
9	Value Added & Specialty Products	10.A.i; 10.B.i; 10.C.i	5
10	Food Packaging Options & Guidelines	20.A.i; 20.B.i; 20.C.i; 20.D.i	4
11	Food Industry Safety	6.E.i	6
12	Sanitation & Safety Procedures in Food Production	6.E.i	9
13	Food Sanitation: Insects & Rodents	6.E.i	4
14	It's Alive!: Foodborne Illnesses	6.B.i; 6.C.i; 6.D.i	5
15	Principles of HACCP: Introduction	6.F.i	2
16	Principles of HACCP: Identifying Hazards in Food Processing	6.F.i	3
17	Principles of HACCP: Conducting a Hazard Analysis	6.F.i	3
18	Principles of HACCP: Identifying Critical Control Points	6.F.i	2
19	Principles of HACCP: Establishing & Monitoring Critical Limits & Implementing Corrective Actions	6.F.i	2
20	Principles of HACCP: Establishing Verification Procedures	6.F.i	2
21	Principles of HACCP: Recordkeeping	6.F.i	2
22	Principles of HACCP: Ground Beef HACCP Plan	6.F.i	2
23	Food & the Government	12.A.i; 12.B.i; 12.C.i	7
24	A Closer Look at Nutrition: Metabolism & Energy	13.A.i; 13.B.i; 13.C.i	6
25	Fundamental Plant Processes	14.A.i	7
26	A Closer Look at Nutrition: Carbohydrates	14.B.i; 14.C.i; 14.D.i; 14.D.ii; 14.F.i	6

Scope & Sequence	Lesson Title	TEKS	Days of Teaching
27	A Closer Look at Nutrition: Fats & Lipids	15.A.i; 15.A.ii; 15.B.i; 15.C.i; 15.D.i; 15.E.i; 15.F.i; 15.G.i; 15.G.ii	6
28	A Closer Look at Nutrition: Proteins & Amino Acids	16.A.i; 16.A.ii; 16.B.i; 16.C.i; 16.C.ii	6
29	A Closer Look at Nutrition: Vitamins, Minerals & Water	17.A.i; 17.A.ii; 17.B.i; 17.B.ii; 17.C.i; 18.A.i; 18.B.i; 18.C.i; 18.C.ii; 18.D.i	6
30	Introduction to Culinary Techniques & Methods	13.C.i; 16.D.i; 16.D.ii; 16.E.i; 18.F.i	10
31	Grains, Legumes & Pastas	18.D.ii; 18.E.i; 18.F.i	9
32	Environmental Issues in the Hospitality & Tourism Industry	2.B.i; 2.B.ii; 2.B.iii	7
33	Environmental Resources: Renewable & Non-Renewable Resources & Energy	2.B.i; 2.B.ii; 2.B.iii	6
34	Sustainability in the Food Service Industry	2.B.i; 2.B.ii; 2.B.iii	7
35	English Applications	English Language Proficiency Standards (ELPS)	8
36	Communication Styles	1.A.i; 1.A.ii	7
37	Skills for Real World Survival	1.A.i; 1.A.ii; 1.C.i; 1.D.i	13
38	Decision Making	1.E.i	4
39	Management of Energy, Money & Tasks	1.C.i	6
40	Employability Skills	1.A.i; 1.A.ii; 1.C.i; 1.D.i; 1.E.ii	5
41	Teamwork & Collaboration	1.B.i; 1.B.ii	5
42	Business Ethics	1.D.i	3
43	Ethics in Business	1.D.i	6

Correlations to the Texas Essential Knowledge and Skills (TEKS): Student/Teacher Material

Subject	Chapter 130. Texas Essential Knowledge and Skills for Career & Technical Education
Subchapter	Subchapter I. Hospitality and Tourism
Course	§130.256. Food Science (One Credit), Adopted 2015.
Publisher	CEV Multimedia, Ltd.
Program Title	iCEV Family & Consumer Sciences Site
Program ISBN	9781614592228
TEKS Coverage (%)	100.00%

(a) **General Requirements.** This course is recommended for students in Grades 11 and 12. Prerequisites: three units of science, including chemistry and biology. Recommended prerequisite: Principles of Hospitality and Tourism. Students must meet the 40% laboratory and fieldwork requirement. This course satisfies a high school science graduation requirement. Students shall be awarded one credit for successful completion of this course.

(b) Introduction.

- (1) Career and technical education instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions.
- (2) The Hospitality and Tourism Career Cluster focuses on the management, marketing, and operations of restaurants and other food/beverage services, lodging, attractions, recreation events, and travel-related services.
- (3) In Food Science students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Food Science is the study of the nature of foods, the causes of deterioration, the principles underlying food processing, and the improvement of foods for the consuming public.
- (4) Science, as defined by the National Academy of Sciences, is the "use of evidence to construct testable explanations and predictions of natural phenomena, as well as the knowledge generated through this process." This vast body of changing and increasing knowledge is described by physical, mathematical, and conceptual models. Students should know that some questions are outside the realm of science because they deal with phenomena that are not scientifically testable.
- (5) Scientific inquiry is the planned and deliberate investigation of the natural world. Scientific methods of investigation are experimental, descriptive, or comparative. The method chosen should be appropriate to the question being asked.
- (6) Scientific decision making is a way of answering questions about the natural world. Students should be able to distinguish between scientific decision-making methods (scientific methods) and ethical and social decisions that involve science (the application of scientific information).
- (7) A system is a collection of cycles, structures, and processes that interact. All systems have basic properties that can be described in space, time, energy, and matter. Change and constancy occur in systems as patterns and can be observed, measured, and modeled. These patterns help to make predictions that can be scientifically tested. Students should analyze a system in terms of its components and how these components relate to each other, to the whole, and to the external environment.
- (8) Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.
- (9) Statements that contain the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.

(c) Knowledge and Skills.

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(A) apply interpersonal communication skills in business and industry settings	(i) apply interpersonal communication skills in business settings	Student/Teacher	Narrative	9781614592228	Communication Styles	
			Student/Teacher	Activity	9781614592228	Project - Model Communication	Communication Styles
			Student/Teacher	Narrative	9781614592228	Employability Skills	
			Student/Teacher	Activity	9781614592228	Activity - Knots	Employability Skills
			Student/Teacher	Narrative	9781614592228	Skills for Real World Survival	
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(A) apply interpersonal communication skills in business and industry settings	(ii) apply interpersonal communication skills in industry settings	Student/Teacher	Narrative	9781614592228	Communication Styles	
			Student/Teacher	Activity	9781614592228	Project - Model Communication	Communication Styles
			Student/Teacher	Narrative	9781614592228	Employability Skills	
			Student/Teacher	Activity	9781614592228	Activity - Knots	Employability Skills
			Student/Teacher	Narrative	9781614592228	Skills for Real World Survival	
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(B) explain and recognize the value of collaboration within the workplace	(i) explain the value of collaboration within the workplace	Student/Teacher	Narrative	9781614592228	Teamwork & Collaboration	
			Student/Teacher	Activity	9781614592228	Activity- Team Roles; Activity- Words of Teamwork; Project-Work-Related Problem Solving	Teamwork & Collaboration

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(B) explain and recognize the value of collaboration within the workplace	(ii) recognize the value of collaboration within the workplace	Student/Teacher	Narrative	9781614592228	Teamwork & Collaboration	
			Student/Teacher	Activity	9781614592228	Activity- Team Roles; Activity- Words of Teamwork; Project- Work-Related Problem Solving	Teamwork & Collaboration
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(C) examine the importance of time management to succeed in the workforce	(i) examine the importance of time management to succeed in the workforce	Student/Teacher	Narrative	9781614592228	Employability Skills	
			Student/Teacher	Activity	9781614592228	Activity - Skills Flashcards	Employability Skills
			Student/Teacher	Narrative	9781614592228	Management of Energy, Money & Tasks	
			Student/Teacher	Activity	9781614592228	Project - Managing Tasks; Activity- Budget; Activity- Opportunity Costs; Project- Work-Life Balance	Management of Energy, Money & Tasks
			Student/Teacher	Narrative	9781614592228	Skills for Real World Survival	
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(D) identify work ethics/professionalism in a job setting	(i) identify work ethics/professionalism in a job setting	Student/Teacher	Narrative	9781614592228	Employability Skills	
			Student/Teacher	Activity	9781614592228	Activity - Skills Flashcards	Employability Skills
			Student/Teacher	Narrative	9781614592228	Management of Energy, Money & Tasks	
			Student/Teacher	Activity	9781614592228	Project - Managing Tasks; Activity- Budget; Activity- Opportunity Costs; Project- Work-Life Balance	Management of Energy, Money & Tasks
			Student/Teacher	Narrative	9781614592228	Skills for Real World Survival	
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(E) develop problem-solving and critical-thinking skills	(i) develop problem-solving skills	Student/Teacher	Narrative	9781614592228	Decision Making	
			Student/Teacher	Activity	9781614592228	Activity- Decision Making Process; Project- Decisions Made; Project- Future Decisions	Decision Making
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(E) develop problem-solving and critical-thinking skills	(ii) develop critical-thinking skills	Student/Teacher	Narrative	9781614592228	Employability Skills	
			Student/Teacher	Activity	9781614592228	Activity- Knots; Activity- KWL; Activity- Skills Flashcards; Project- Interview; Project- Personal Skills	Employability Skills
(2) The student, for at least 40% of instructional time, conducts laboratory and field investigations using safe, environmentally appropriate, and ethical practices. The student is expected to:	(A) demonstrate safe practices during laboratory and field investigations	(i) demonstrate safe practices during laboratory investigations	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety; Student Handout - Field Investigations	
			Student/Teacher	Activity	9781614592228	Activity - Field Investigations; Activity - Field Investigations Teacher Instruction Sheet	Scientific Procedures & Safety

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(2) The student, for at least 40% of instructional time, conducts laboratory and field investigations using safe, environmentally appropriate, and ethical practices. The student is expected to:	(A) demonstrate safe practices during laboratory and field investigations	(ii) demonstrate safe practices during field investigations	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety
(2) The student, for at least 40% of instructional time, conducts laboratory and field investigations using safe, environmentally appropriate, and ethical practices. The student is expected to:	(B) demonstrate an understanding of the use and conservation of resources and the proper disposal or recycling of materials	(i) demonstrate an understanding of the use of resources	Student/Teacher	Narrative	9781614592228	Environmental Issues in the Hospitality & Tourism Industry	
			Student/Teacher	Activity	9781614592228	Activity- Energy Star Equipment; Activity- Water Conservation Notice; Project- EcoDesign in Hospitality Architecture; Vocabulary Handout	Environmental Issues in the Hospitality & Tourism Industry
			Student/Teacher	Narrative	9781614592228	Sustainability in the Food Service Industry	
			Student/Teacher	Activity	9781614592228	Activity- Sustainable Food Glossary; Project- Green Dining Room; Project- Wise Water Use	Sustainability in the Food Service Industry
			Student/Teacher	Narrative	9781614592228	Environmental Resources: Renewable & Non-Renewable Resources & Energy; Activity- Resource Preservation Paper	Environmental Resources: Renewable & Non-Renewable Resources & Energy; PLEASE NOTE: Due to space limitations, the narrative and associated activity are listed on one line. Several lessons and corresponding activities satisfy this standard.

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(2) The student, for at least 40% of instructional time, conducts laboratory and field investigations using safe, environmentally appropriate, and ethical practices. The student is expected to:	(B) demonstrate an understanding of the use and conservation of resources and the proper disposal or recycling of materials	(ii) demonstrate an understanding of the conservation of resources	Student/Teacher	Narrative	9781614592228	Environmental Issues in the Hospitality & Tourism Industry	
			Student/Teacher	Activity	9781614592228	Activity- Energy Star Equipment; Activity- Water Conservation Notice; Project- EcoDesign in Hospitality Architecture; Vocabulary Handout	Environmental Issues in the Hospitality & Tourism Industry
			Student/Teacher	Narrative	9781614592228	Sustainability in the Food Service Industry	
			Student/Teacher	Activity	9781614592228	Activity- Sustainable Food Glossary; Project- Green Dining Room; Project- Wise Water Use	Sustainability in the Food Service Industry
			Student/Teacher	Narrative	9781614592228	Environmental Resources: Renewable & Non-Renewable Resources & Energy; Activity- Resource Preservation Paper	Environmental Resources: Renewable & Non-Renewable Resources & Energy; PLEASE NOTE: Due to space limitations, the narrative and associated activity are listed on one line. Several lessons and corresponding activities satisfy this standard.
(2) The student, for at least 40% of instructional time, conducts laboratory and field investigations using safe, environmentally appropriate, and ethical practices. The student is expected to:	(B) demonstrate an understanding of the use and conservation of resources and the proper disposal or recycling of materials	(iii) demonstrate an understanding of the proper disposal or recycling of materials	Student/Teacher	Narrative	9781614592228	Environmental Issues in the Hospitality & Tourism Industry	
			Student/Teacher	Activity	9781614592228	Activity- Energy Star Equipment; Activity- Water Conservation Notice; Project- EcoDesign in Hospitality Architecture; Vocabulary Handout	Environmental Issues in the Hospitality & Tourism Industry
			Student/Teacher	Narrative	9781614592228	Sustainability in the Food Service Industry	
			Student/Teacher	Activity	9781614592228	Activity- Sustainable Food Glossary; Project- Green Dining Room; Project- Wise Water Use	Sustainability in the Food Service Industry
			Student/Teacher	Narrative	9781614592228	Environmental Resources: Renewable & Non-Renewable Resources & Energy; Activity- Resource Preservation Paper	Environmental Resources: Renewable & Non-Renewable Resources & Energy; PLEASE NOTE: Due to space limitations, the narrative and associated activity are listed on one line. Several lessons and corresponding activities satisfy this standard.
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(A) know the definition of science and understand that it has limitations, as specified in subsection (b)(4) of this section	(i) know the definition of science, as specified in subsection (b)(4) [above]	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(A) know the definition of science and understand that it has limitations, as specified in subsection (b)(4) of this section	(ii) understand that [science] has limitations, as specified in subsection (b)(4) [above]	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(B) know that hypotheses are tentative and testable statements that must be capable of being supported or not supported by observational evidence. Hypotheses of durable explanatory power that have been tested over a wide variety of conditions are incorporated into theories	(i) know that hypotheses are tentative statements that must be capable of being supported or not supported by observational evidence	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(B) know that hypotheses are tentative and testable statements that must be capable of being supported or not supported by observational evidence. Hypotheses of durable explanatory power that have been tested over a wide variety of conditions are incorporated into theories	(ii) know that hypotheses are testable statements that must be capable of being supported or not supported by observational evidence	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(B) know that hypotheses are tentative and testable statements that must be capable of being supported or not supported by observational evidence. Hypotheses of durable explanatory power that have been tested over a wide variety of conditions are incorporated into theories	(iii) [know that] hypotheses of durable explanatory power which have been tested over a wide variety of conditions are incorporated into theories	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(C) know scientific theories are based on natural and physical phenomena and are capable of being tested by multiple independent researchers. Unlike hypotheses, scientific theories are well-established and highly-reliable explanations, but they may be subject to change as new areas of science and new technologies are developed	(i) know [that] scientific theories are based on natural and physical phenomena	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(C) know scientific theories are based on natural and physical phenomena and are capable of being tested by multiple independent researchers. Unlike hypotheses, scientific theories are well-established and highly-reliable explanations, but they may be subject to change as new areas of science and new technologies are developed	(ii) know [that] scientific theories are capable of being tested by multiple independent researchers	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(C) know scientific theories are based on natural and physical phenomena and are capable of being tested by multiple independent researchers. Unlike hypotheses, scientific theories are well-established and highly-reliable explanations, but they may be subject to change as new areas of science and new technologies are developed	(iii) [know that] unlike hypotheses, scientific theories are well-established explanations	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(C) know scientific theories are based on natural and physical phenomena and are capable of being tested by multiple independent researchers. Unlike hypotheses, scientific theories are well-established and highly-reliable explanations, but they may be subject to change as new areas of science and new technologies are developed	(iv) [know that], unlike hypotheses, scientific theories are highly-reliable explanations	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(C) know scientific theories are based on natural and physical phenomena and are capable of being tested by multiple independent researchers. Unlike hypotheses, scientific theories are well-established and highly-reliable explanations, but they may be subject to change as new areas of science and new technologies are developed	(v) [know that] scientific theories may be subject to change as new areas of science are developed	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(C) know scientific theories are based on natural and physical phenomena and are capable of being tested by multiple independent researchers. Unlike hypotheses, scientific theories are well-established and highly-reliable explanations, but they may be subject to change as new areas of science and new technologies are developed	(vi) [know that] scientific theories may be subject to change as new technologies are developed	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(D) distinguish between scientific hypotheses and scientific theories	(i) distinguish between scientific hypotheses and scientific theories	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity - Hypothesis or Theory	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology	(i) plan descriptive investigations, including asking questions	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology	(ii) plan descriptive investigations, including selecting equipment	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology	(iii) plan descriptive investigations, including selecting technology	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology	(iv) implement descriptive investigations, including asking questions	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology	(v) implement descriptive investigations, including selecting equipment	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology	(vi) implement descriptive investigations, including selecting technology	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology	(vii) plan comparative investigations, including asking questions	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology	(viii) plan comparative investigations, including formulating testable hypotheses	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology	(ix) plan comparative investigations, including selecting equipment	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology	(x) plan comparative investigations, including selecting technology	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology	(xi) implement comparative investigations, including asking questions	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology	(xii) implement comparative investigations, including formulating testable hypotheses	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology	(xiii) implement comparative investigations, including selecting equipment	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology	(xiv) implement comparative investigations, including selecting technology	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology	(xv) plan experimental investigations, including asking questions	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology	(xvi) plan experimental investigations, including formulating testable hypotheses	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology	(xvii) plan experimental investigations, including selecting equipment	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology	(xviii) plan experimental investigations, including selecting technology	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology	(xix) implement experimental investigations, including asking questions	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology	(xx) implement experimental investigations, including formulating testable hypotheses	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology	(xxi) implement experimental investigations, including selecting equipment	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology	(xxii) implement experimental investigations, including selecting technology	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(i) collect qualitative data with accuracy using tools	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Project- Mini Science Fair	Scientific Procedures & Safety

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(ii) collect quantitative data with accuracy using tools	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(iii) organize qualitative data with accuracy using tools	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(iv) organize quantitative data with accuracy using tools	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Project- Mini Science Fair	Scientific Procedures & Safety

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(v) make measurements with accuracy using tools	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(vi) collect qualitative data with precision using tools	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(vii) collect quantitative data with precision using tools	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety: Student Handout - Collecting Data	
			Student/Teacher	Activity	9781614592228	Project- Mini Science Fair	Scientific Procedures & Safety

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(viii) organize qualitative data with precision using tools	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety: Student Handout - Collecting Data	
			Student/Teacher	Activity	9781614592228	Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(ix) organize quantitative data with precision using tools	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety: Student Handout - Collecting Data	
			Student/Teacher	Activity	9781614592228	Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(x) make measurements with precision using tools	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety: Student Handout - Collecting Data	
			Student/Teacher	Activity	9781614592228	Project- Mini Science Fair	Scientific Procedures & Safety

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(G) analyze, evaluate, make inferences, and predict trends from data	(i) analyze data	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(G) analyze, evaluate, make inferences, and predict trends from data	(ii) evaluate data	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(G) analyze, evaluate, make inferences, and predict trends from data	(iii) make inferences from data	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Dress for Lab Safety Success; Activity- Dress for Lab Safety Success Teacher Instruction Sheet; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Lab Cleaning; Activity- Lab Cleaning Answer Key	Scientific Procedures & Safety
			Student/Teacher	Activity	9781614592228	Activity- Microscope Diagram; Activity- Microscope Diagram Answer Key; Activity- Microscope Lab; Activity- Microscope Lab Answer Key; Activity- Safety Poster; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair	Scientific Procedures & Safety

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(G) analyze, evaluate, make inferences, and predict trends from data	(iv) predict trends from data	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project-Mini Science Fair; Vocabulary Handout	Scientific Procedures & Safety
(3) The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(H) communicate valid conclusions supported by the data through methods such as lab reports, labeled drawings, graphic organizers, journals, summaries, oral reports, and technology-based reports	(i) communicate valid conclusions supported by the data through methods	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project-Mini Science Fair; Vocabulary Handout	Scientific Procedures & Safety
(4) The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(i) in all fields of science, analyze scientific explanations by using empirical evidence	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project-Mini Science Fair; Vocabulary Handout	Scientific Procedures & Safety
(4) The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(ii) in all fields of science, analyze scientific explanations by using logical reasoning	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project-Mini Science Fair; Vocabulary Handout	Scientific Procedures & Safety

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(4) The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(iii) in all fields of science, analyze scientific explanations by using experimental testing	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project-Mini Science Fair; Vocabulary Handout	Scientific Procedures & Safety
(4) The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(iv) in all fields of science, analyze scientific explanations by using observational testing	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project-Mini Science Fair; Vocabulary Handout	Scientific Procedures & Safety
(4) The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(v) in all fields of science, analyze scientific explanations, including examining all sides of scientific evidence of those scientific explanations	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project-Mini Science Fair; Vocabulary Handout	Scientific Procedures & Safety

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(4) The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(vi) in all fields of science, evaluate scientific explanations by using empirical evidence	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project-Mini Science Fair; Vocabulary Handout	Scientific Procedures & Safety
(4) The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(vii) in all fields of science, evaluate scientific explanations by using logical reasoning	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project-Mini Science Fair; Vocabulary Handout	Scientific Procedures & Safety
(4) The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(viii) in all fields of science, evaluate scientific explanations by using experimental testing	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project-Mini Science Fair; Vocabulary Handout	Scientific Procedures & Safety

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(4) The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(ix) in all fields of science, evaluate scientific explanations by using observational testing	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project-Mini Science Fair; Vocabulary Handout	Scientific Procedures & Safety
(4) The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(x) in all fields of science, evaluate scientific explanations, including examining all sides of scientific explanations	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project-Mini Science Fair; Vocabulary Handout	Scientific Procedures & Safety
(4) The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(xi) in all fields of science, critique scientific explanations by using empirical evidence	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project-Mini Science Fair; Vocabulary Handout	Scientific Procedures & Safety

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(4) The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(xii) in all fields of science, critique scientific explanations by using logical reasoning	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Impact of Research; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Activity- Water Taste Test; Project- Biographies in Science; Project- Biographies in Science Teacher Instruction Sheet; Project- Great Discoveries in Science	Scientific Procedures & Safety
(4) The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(xiii) in all fields of science, critique scientific explanations by using experimental testing	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Impact of Research; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Activity- Water Taste Test; Project- Biographies in Science; Project- Biographies in Science Teacher Instruction Sheet; Project- Great Discoveries in Science	Scientific Procedures & Safety
(4) The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(xiv) in all fields of science, critique scientific explanations by using observational testing	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair; Vocabulary Handout	Scientific Procedures & Safety

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(4) The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(xv) in all fields of science, critique scientific explanations, including examining all sides of scientific evidence of those scientific explanations	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair; Vocabulary Handout	Scientific Procedures & Safety
(4) The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(B) communicate and apply scientific information extracted from various sources such as current events, news reports, published journal articles, and marketing materials	(i) communicate scientific information extracted from various sources	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Impact of Research; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Activity- Water Taste Test; Project- Biographies in Science; Project- Biographies in Science Teacher Instruction Sheet; Project- Great Discoveries in Science	Scientific Procedures & Safety
(4) The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(B) communicate and apply scientific information extracted from various sources such as current events, news reports, published journal articles, and marketing materials	(ii) apply scientific information extracted from various sources	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Impact of Research; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Activity- Water Taste Test; Project- Biographies in Science; Project- Biographies in Science Teacher Instruction Sheet; Project- Great Discoveries in Science	Scientific Procedures & Safety
(4) The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(C) draw inferences based on data related to promotional materials for products and services	(i) draw inferences based on data related to promotional materials for products	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair; Vocabulary Handout	Scientific Procedures & Safety

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(4) The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(C) draw inferences based on data related to promotional materials for products and services	(ii) draw inferences based on data related to promotional materials for services	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Designing an Experiment; Activity- Designing an Experiment Answer Key; Activity- Experimental Design Paper Airplane; Activity- Experimental Design Paper Airplane Answer Key; Activity- Impact of Research; Activity- Understanding Controlled Experiments; Activity- Understanding Controlled Experiments Answer Key; Project- Mini Science Fair; Vocabulary Handout	Scientific Procedures & Safety
(4) The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(D) evaluate the impact of scientific research on society and the environment	(i) evaluate the impact of scientific research on society	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Impact of Research	Scientific Procedures & Safety
(4) The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(D) evaluate the impact of scientific research on society and the environment	(ii) evaluate the impact of scientific research on the environment	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity- Impact of Research	Scientific Procedures & Safety
(4) The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(E) evaluate models according to their limitations in representing biological objects or events	(i) evaluate models according to their limitations in representing biological objects or events	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Activity - Scientific Models	Scientific Procedures & Safety
(4) The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(F) research and describe the history of biology and contributions of scientists	(i) research the history of biology	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Vocabulary Handout; Activity- Science History Timeline	Scientific Procedures & Safety
(4) The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(F) research and describe the history of biology and contributions of scientists	(ii) research the contributions of scientists	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Project- Biographies in Science; Project- Biographies in Science Teacher Instruction Sheet; Project- Great Discoveries in Science	Scientific Procedures & Safety
(4) The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(F) research and describe the history of biology and contributions of scientists	(iii) describe the history of biology	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Vocabulary Handout; Activity- Science History Timeline	Scientific Procedures & Safety

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(4) The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(F) research and describe the history of biology and contributions of scientists	(iv) describe the contributions of scientists	Student/Teacher	Narrative	9781614592228	Scientific Procedures & Safety	
			Student/Teacher	Activity	9781614592228	Project- Biographies in Science; Project- Biographies in Science Teacher Instruction Sheet; Project- Great Discoveries in Science	Scientific Procedures & Safety
(5) The student analyzes the role of acids and bases in the food sciences. The student is expected to:	(A) evaluate physical and chemical properties of acids and bases	(i) evaluate physical properties of acids	Student/Teacher	Narrative	9781614592228	Acids & Bases in Food Science	
			Student/Teacher	Activity	9781614592228	Project- Acid or Base; Project- Industry Investigation	Acids & Bases in Food Science
			Student/Teacher	Narrative	9781614592228	Scientific Principles: Chemical Properties	
(5) The student analyzes the role of acids and bases in the food sciences. The student is expected to:	(A) evaluate physical and chemical properties of acids and bases	(ii) evaluate physical properties of bases	Student/Teacher	Narrative	9781614592228	Acids & Bases in Food Science	
			Student/Teacher	Activity	9781614592228	Project- Acid or Base; Project- Industry Investigation	Acids & Bases in Food Science
			Student/Teacher	Narrative	9781614592228	Scientific Principles: Chemical Properties	
(5) The student analyzes the role of acids and bases in the food sciences. The student is expected to:	(A) evaluate physical and chemical properties of acids and bases	(iii) evaluate chemical properties of acids	Student/Teacher	Narrative	9781614592228	Acids & Bases in Food Science	
			Student/Teacher	Activity	9781614592228	Activity- Baking Soda & Vinegar; Project- Acid or Base; Project- Industry Investigation	Acids & Bases in Food Science
			Student/Teacher	Narrative	9781614592228	Scientific Principles: Chemical Properties	
(5) The student analyzes the role of acids and bases in the food sciences. The student is expected to:	(A) evaluate physical and chemical properties of acids and bases	(iv) evaluate chemical properties of bases	Student/Teacher	Narrative	9781614592228	Acids & Bases in Food Science	
			Student/Teacher	Activity	9781614592228	Activity- Baking Soda & Vinegar; Project- Acid or Base; Project- Industry Investigation	Acids & Bases in Food Science
			Student/Teacher	Narrative	9781614592228	Scientific Principles: Chemical Properties	
(5) The student analyzes the role of acids and bases in the food sciences. The student is expected to:	(B) analyze the relationship of pH to the properties, safety, and freshness of food	(i) analyze the relationship of pH to the properties of food	Student/Teacher	Narrative	9781614592228	Acids & Bases in Food Science	
			Student/Teacher	Activity	9781614592228	Activity- Natural pH Indicators; Activity- Red Cabbage Juice & pH; Activity- The pH of a Diet; Project- Acid or Base; Project- Industry Investigation; Student Handout- pH & Food	Acids & Bases in Food Science
(5) The student analyzes the role of acids and bases in the food sciences. The student is expected to:	(B) analyze the relationship of pH to the properties, safety, and freshness of food	(ii) analyze the relationship of pH to the safety of food	Student/Teacher	Narrative	9781614592228	Acids & Bases in Food Science	
			Student/Teacher	Activity	9781614592228	Activity- Natural pH Indicators; Activity- Red Cabbage Juice & pH; Activity- The pH of a Diet; Project- Acid or Base; Project- Industry Investigation; Student Handout- pH & Food	Acids & Bases in Food Science

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(5) The student analyzes the role of acids and bases in the food sciences. The student is expected to:	(B) analyze the relationship of pH to the properties, safety, and freshness of food	(iii) analyze the relationship of pH to the freshness of food	Student/Teacher	Narrative	9781614592228	Acids & Bases in Food Science	
			Student/Teacher	Activity	9781614592228	Activity- Natural pH Indicators; Activity- Red Cabbage Juice & pH; Activity- The pH of a Diet; Project- Acid or Base; Project- Industry Investigation; Student Handout- pH & Food	Acids & Bases in Food Science
(6) The student evaluates the principles of microbiology and food safety practices. The student is expected to:	(A) investigate the properties of microorganisms that cause food spoilage	(i) investigate the properties of microorganisms that cause food spoilage	Student/Teacher	Narrative	9781614592228	The Science in Food Handling & Storage	
			Student/Teacher	Activity	9781614592228	Project - Food Spoilage Microorganism Profile	The Science in Food Handling & Storage
			Student/Teacher	Narrative	9781614592228	The Science in Food Preservation	
(6) The student evaluates the principles of microbiology and food safety practices. The student is expected to:	(B) compare food intoxication and food infection	(i) compare food intoxication and food infection	Student/Teacher	Narrative	9781614592228	It's Alive!: Foodborne Illnesses	
			Student/Teacher	Activity	9781614592228	Activity- Food Infection vs Food Intoxication; Project- Food Poisoning Prevention PSA; Project- Foodborne Illness Poster; Vocabulary Handout	It's Alive!: Foodborne Illnesses
(6) The student evaluates the principles of microbiology and food safety practices. The student is expected to:	(C) examine methods to destroy or inactivate harmful pathogens in foods	(i) examine methods to destroy or inactivate harmful pathogens in foods	Student/Teacher	Narrative	9781614592228	It's Alive!: Foodborne Illnesses	
			Student/Teacher	Activity	9781614592228	Activity- Food Safety Thermometer	It's Alive!: Foodborne Illnesses
			Student/Teacher	Narrative	9781614592228	The Science in Food Preservation	
			Student/Teacher	Activity	9781614592228	Activity- Food Dehydration Investigation; Activity- Food Irradiation Debate; Project- Commercial Canning; Project- Industry Insight	The Science in Food Preservation
(6) The student evaluates the principles of microbiology and food safety practices. The student is expected to:	(D) compare beneficial and harmful microorganisms	(i) compare beneficial and harmful microorganisms	Student/Teacher	Narrative	9781614592228	It's Alive!: Foodborne Illnesses	
			Student/Teacher	Activity	9781614592228	Project- Bacteria Investigation; Vocabulary Handout	It's Alive!: Foodborne Illnesses
(6) The student evaluates the principles of microbiology and food safety practices. The student is expected to:	(E) analyze sanitary food-handling practices	(i) analyze sanitary food-handling practices	Student/Teacher	Narrative	9781614592228	Food Industry Safety	
			Student/Teacher	Activity	9781614592228	Activity- Safety Poster; Project- Foodborne Illnesses	Food Industry Safety
			Student/Teacher	Narrative	9781614592228	Food Sanitation: Insects & Rodents	
			Student/Teacher	Activity	9781614592228	Activity- Sanitizers & Cleaners Reference Sheet; Activity- Sanitizers & Cleaners Reference Sheet Answer Key; Project- The Cost of Pest Control	Food Sanitation: Insects & Rodents
			Student/Teacher	Narrative	9781614592228	Sanitation & Safety Procedures in Food Production; Activity- Right to Know; Activity- Sanitation Terms; Activity- Sanitation Terms Answer Key; Activity- Scheduled Cleaning; Activity- Scheduled Cleaning Teacher Instruction Sheet; Project- Developing a Cleaning Schedule; Project- MSDS Challenge; Vocabulary Handout	Sanitation & Safety Procedures in Food Production: PLEASE NOTE: Due to space limitations, the narrative and associated activity are listed on one line. Several lessons and corresponding activities satisfy this standard.

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(6) The student evaluates the principles of microbiology and food safety practices. The student is expected to:	(F) prepare for a state or national food manager's sanitation certification or alternative credential within the field of food science technology	(i) prepare for a state or national food manager's sanitation certification or alternative credential within the field of food science technology	Student/Teacher	Narrative	9781614592228	Principles of HACCP: Introduction	
			Student/Teacher	Activity	9781614592228	Activity- HACCP Applications; Project- HACCP Flow Diagram; Project- HACCP Flow Diagram Answer Key	Principles of HACCP: Introduction
			Student/Teacher	Narrative	9781614592228	Principles of HACCP: Identifying Critical Control Points	
			Student/Teacher	Activity	9781614592228	Project- Critical Control Point Determination; Project- Critical Control Point Determination Answer Key; Student Handout- CCP Decision Tree	Principles of HACCP: Identifying Critical Control Points
			Student/Teacher	Narrative	9781614592228	Principles of HACCP: Identifying Hazards in Food Processing; Principles of HACCP: Conducting a Hazard Analysis; Principles of HACCP: Establishing & Monitoring Critical Limits & Taking Corrective Actions; Principles of HACCP: Establishing Verification Procedures; Principles of HACCP: Recordkeeping; Principles of HACCP: Ground Beef HACCP Plan	PLEASE NOTE: Due to space limitations, more than one narrative correlation lesson is listed on this line. Several lessons and corresponding activities satisfy this standard.
(7) The student examines the chemical properties of food. The student is expected to:	(A) describe elements, compounds, mixtures, and formulas related to food science	(i) describe elements related to food science	Student/Teacher	Narrative	9781614592228	Scientific Principles: Chemical Properties	
			Student/Teacher	Activity	9781614592228	Activity- Food Ingredient Classification; Activity- Life Size Periodic Table; Activity- Mystery Chemicals; Project- Element Social Media Profile; Project- Fermentation of Root Beer; Student Handout- Pre-Treatment Comparison; Vocabulary Handout	Scientific Principles: Chemical Properties
(7) The student examines the chemical properties of food. The student is expected to:	(A) describe elements, compounds, mixtures, and formulas related to food science	(ii) describe compounds related to food science	Student/Teacher	Narrative	9781614592228	Scientific Principles: Chemical Properties	
			Student/Teacher	Activity	9781614592228	Activity- Food Ingredient Classification; Activity- Life Size Periodic Table; Activity- Mystery Chemicals; Project- Element Social Media Profile; Project- Fermentation of Root Beer; Student Handout- Pre-Treatment Comparison; Vocabulary Handout	Scientific Principles: Chemical Properties
(7) The student examines the chemical properties of food. The student is expected to:	(A) describe elements, compounds, mixtures, and formulas related to food science	(iii) describe mixtures related to food science	Student/Teacher	Narrative	9781614592228	Scientific Principles: Solutions & Emulsions	
			Student/Teacher	Activity	9781614592228	Activity- Categorizing Mixtures; Activity- Tyndall Effect; Vocabulary Handout	Scientific Principles: Solutions & Emulsions
(7) The student examines the chemical properties of food. The student is expected to:	(A) describe elements, compounds, mixtures, and formulas related to food science	(iv) describe formulas related to food science	Student/Teacher	Narrative	9781614592228	Scientific Principles: Chemical Properties	
			Student/Teacher	Activity	9781614592228	Project - Fermentation of Root Beer; Activity - Food Chemical Formulas & Reactions	Scientific Principles: Chemical Properties
(7) The student examines the chemical properties of food. The student is expected to:	(B) compare heterogeneous and homogeneous mixtures	(i) compare heterogeneous and homogeneous mixtures	Student/Teacher	Narrative	9781614592228	Scientific Principles: Solutions & Emulsions	
			Student/Teacher	Activity	9781614592228	Activity- Categorizing Mixtures; Vocabulary Handout	Scientific Principles: Solutions & Emulsions

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(7) The student examines the chemical properties of food. The student is expected to:	(C) use chemical symbols, formulas, and equations in food science	(i) use chemical symbols in food science	Student/Teacher	Narrative	9781614592228	Scientific Principles: Chemical Properties	
			Student/Teacher	Activity	9781614592228	Activity- Life Size Periodic Table; Activity - Food Chemical Formulas & Reactions	Scientific Principles: Chemical Properties
(7) The student examines the chemical properties of food. The student is expected to:	(C) use chemical symbols, formulas, and equations in food science	(ii) use chemical formulas in food science	Student/Teacher	Narrative	9781614592228	Scientific Principles: Chemical Properties	
			Student/Teacher	Activity	9781614592228	Project - Fermentation of Root Beer; Activity - Food Chemical Formulas & Reactions	Scientific Principles: Chemical Properties
(7) The student examines the chemical properties of food. The student is expected to:	(C) use chemical symbols, formulas, and equations in food science	(iii) use chemical equations in food science	Student/Teacher	Narrative	9781614592228	Scientific Principles: Chemical Properties	
			Student/Teacher	Activity	9781614592228	Activity - Food Chemical Formulas & Reactions	Scientific Principles: Chemical Properties
(7) The student examines the chemical properties of food. The student is expected to:	(D) analyze chemical and physical changes in food	(i) analyze chemical changes in food	Student/Teacher	Narrative	9781614592228	Scientific Principles: Chemical Properties	
			Student/Teacher	Activity	9781614592228	Project - Fermentation of Root Beer	Scientific Principles: Chemical Properties
(7) The student examines the chemical properties of food. The student is expected to:	(D) analyze chemical and physical changes in food	(ii) analyze physical changes in food	Student/Teacher	Narrative	9781614592228	Scientific Principles: Chemical Properties	
			Student/Teacher	Activity	9781614592228	Activity - Reaction Rate Race	Scientific Principles: Chemical Properties
(8) The student analyzes solutions, colloids, solids, gels, foams, and emulsions in food science. The student is expected to:	(A) identify the solvent and solute in a given solution	(i) identify the solvent in a given solution	Student/Teacher	Narrative	9781614592228	Scientific Principles: Solutions & Emulsions	
			Student/Teacher	Activity	9781614592228	Activity- Concentration; Vocabulary Handout; Assessment; Assessment Answer Key	Scientific Principles: Solutions & Emulsions
(8) The student analyzes solutions, colloids, solids, gels, foams, and emulsions in food science. The student is expected to:	(A) identify the solvent and solute in a given solution	(ii) identify the solute in a given solution	Student/Teacher	Narrative	9781614592228	Scientific Principles: Solutions & Emulsions	
			Student/Teacher	Activity	9781614592228	Activity- Concentration; Vocabulary Handout; Assessment; Assessment Answer Key	Scientific Principles: Solutions & Emulsions
(8) The student analyzes solutions, colloids, solids, gels, foams, and emulsions in food science. The student is expected to:	(B) compare unsaturated, saturated, and supersaturated solutions, including boiling and freezing points	(i) compare unsaturated, saturated, and supersaturated solutions, including boiling points	Student/Teacher	Narrative	9781614592228	Scientific Principles: Solutions & Emulsions	
			Student/Teacher	Activity	9781614592228	Activity- Concentration; Vocabulary Handout; Assessment; Assessment Answer Key	Scientific Principles: Solutions & Emulsions

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(8) The student analyzes solutions, colloids, solids, gels, foams, and emulsions in food science. The student is expected to:	(B) compare unsaturated, saturated, and supersaturated solutions, including boiling and freezing points	(ii) compare unsaturated, saturated, and supersaturated solutions, including freezing points	Student/Teacher	Narrative	9781614592228	Scientific Principles: Solutions & Emulsions	
			Student/Teacher	Activity	9781614592228	Activity- Concentration; Vocabulary Handout; Assessment; Assessment Answer Key	Scientific Principles: Solutions & Emulsions
(8) The student analyzes solutions, colloids, solids, gels, foams, and emulsions in food science. The student is expected to:	(C) calculate the concentration of a solution using mass percent	(i) calculate the concentration of a solution using mass percent	Student/Teacher	Narrative	9781614592228	Scientific Principles: Solutions & Emulsions	
			Student/Teacher	Activity	9781614592228	Activity- Concentration; Vocabulary Handout; Assessment; Assessment Answer Key	Scientific Principles: Solutions & Emulsions
(8) The student analyzes solutions, colloids, solids, gels, foams, and emulsions in food science. The student is expected to:	(D) describe the properties of colloidal dispersions	(i) describe the properties of colloidal dispersions	Student/Teacher	Narrative	9781614592228	Scientific Principles: Solutions & Emulsions	
			Student/Teacher	Activity	9781614592228	Activity- Tyndall Effect; Vocabulary Handout	Scientific Principles: Solutions & Emulsions
(8) The student analyzes solutions, colloids, solids, gels, foams, and emulsions in food science. The student is expected to:	(E) investigate the relationships among the three parts of an emulsion	(i) investigate the relationships among the three parts of an emulsion	Student/Teacher	Narrative	9781614592228	Scientific Principles: Solutions & Emulsions	
			Student/Teacher	Activity	9781614592228	Activity- Food Investigation; Project- Mayonnaise Recipe	Scientific Principles: Solutions & Emulsions
(8) The student analyzes solutions, colloids, solids, gels, foams, and emulsions in food science. The student is expected to:	(F) create various food emulsions	(i) create various food emulsions	Student/Teacher	Narrative	9781614592228	Scientific Principles: Solutions & Emulsions	
			Student/Teacher	Activity	9781614592228	Activity- Food Investigation; Project- Mayonnaise Recipe	Scientific Principles: Solutions & Emulsions
(9) The student analyzes the functions of enzymes in food science. The student is expected to:	(A) describe the role of enzymes as catalysts in chemical reactions of food	(i) describe the role of enzymes as catalysts in chemical reactions of food	Student/Teacher	Narrative	9781614592228	Scientific Principles: Enzymes	
			Student/Teacher	Activity	9781614592228	Activity- Digestive Enzyme Flashcard; Activity- Enzyme Reaction; Activity- Enzyme Toothpickase; Activity- Enzyme Toothpickase Answer Key; Activity- Recipe Investigation; Project- Enzyme Update; Project- Gelatin and Meat Tenderizer; Vocabulary Handout	Scientific Principles: Enzymes
(9) The student analyzes the functions of enzymes in food science. The student is expected to:	(B) explain the relationship between an enzyme and a substrate	(i) explain the relationship between an enzyme and a substrate	Student/Teacher	Narrative	9781614592228	Scientific Principles: Enzymes	
			Student/Teacher	Activity	9781614592228	Activity- Digestive Enzyme Flashcard; Activity- Enzyme Reaction; Activity- Enzyme Toothpickase; Activity- Enzyme Toothpickase Answer Key; Activity- Recipe Investigation; Project- Enzyme Update; Project- Gelatin and Meat Tenderizer; Vocabulary Handout	Scientific Principles: Enzymes

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(9) The student analyzes the functions of enzymes in food science. The student is expected to:	(C) analyze the functions of enzymes in digestion, including the factors that influence enzyme activity	(i) analyze the functions of enzymes in digestion, including the factors that influence enzyme activity	Student/Teacher	Narrative	9781614592228	Scientific Principles: Enzymes	
			Student/Teacher	Activity	9781614592228	Activity- Digestive Enzyme Flashcard; Activity- Enzyme Reaction; Activity- Enzyme Toothpickase; Activity- Enzyme Toothpickase Answer Key; Activity- Recipe Investigation; Project- Enzyme Update; Project- Gelatin and Meat Tenderizer; Vocabulary Handout	Scientific Principles: Enzymes
(9) The student analyzes the functions of enzymes in food science. The student is expected to:	(D) analyze enzyme reactions in food preparation	(i) analyze enzyme reactions in food preparation	Student/Teacher	Narrative	9781614592228	Scientific Principles: Enzymes	
			Student/Teacher	Activity	9781614592228	Activity- Digestive Enzyme Flashcard; Activity- Enzyme Reaction; Activity- Enzyme Toothpickase; Activity- Enzyme Toothpickase Answer Key; Activity- Recipe Investigation; Project- Enzyme Update; Project- Gelatin and Meat Tenderizer; Vocabulary Handout	Scientific Principles: Enzymes
(10) The student evaluates the role of fermentation in food science. The student is expected to:	(A) analyze reasons food is fermented	(i) analyze reasons food is fermented	Student/Teacher	Narrative	9781614592228	Chemical Processes in Food Science	
			Student/Teacher	Activity	9781614592228	Activity- Fermentation; Activity- Fermentation Balloons; Activity- Fermentation Balloons Answer Key	Chemical Processes in Food Science
			Student/Teacher	Narrative	9781614592228	Scientific Principles: Chemical Properties	
			Student/Teacher	Activity	9781614592228	Project- Fermentation of Root Beer	Scientific Principles: Chemical Properties
			Student/Teacher	Narrative	9781614592228	Value Added & Specialty Products; Project- Adding Value with Fermentation	Value Added & Specialty Products; PLEASE NOTE: Due to space limitations, the narrative and associated activity are listed on one line. Several lessons and corresponding activities satisfy this standard.
(10) The student evaluates the role of fermentation in food science. The student is expected to:	(B) assess the role of bacteria in food fermentation	(i) assess the role of bacteria in food fermentation	Student/Teacher	Narrative	9781614592228	Chemical Processes in Food Science	
			Student/Teacher	Activity	9781614592228	Activity- Fermentation; Activity- Fermentation Balloons; Activity- Fermentation Balloons Answer Key	Chemical Processes in Food Science
			Student/Teacher	Narrative	9781614592228	Scientific Principles: Chemical Properties	
			Student/Teacher	Activity	9781614592228	Project- Fermentation of Root Beer	Scientific Principles: Chemical Properties
			Student/Teacher	Narrative	9781614592228	Value Added & Specialty Products; Project- Adding Value with Fermentation	Value Added & Specialty Products; PLEASE NOTE: Due to space limitations, the narrative and associated activity are listed on one line. Several lessons and corresponding activities satisfy this standard.

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(10) The student evaluates the role of fermentation in food science. The student is expected to:	(C) prepare various fermented food products	(i) prepare various fermented food products	Student/Teacher	Narrative	9781614592228	Chemical Processes in Food Science	
			Student/Teacher	Activity	9781614592228	Activity- Fermentation; Activity- Fermentation Balloons; Activity- Fermentation Balloons Answer Key	Chemical Processes in Food Science
			Student/Teacher	Narrative	9781614592228	Scientific Principles: Chemical Properties	
			Student/Teacher	Activity	9781614592228	Project- Fermentation of Root Beer	Scientific Principles: Chemical Properties
			Student/Teacher	Narrative	9781614592228	Value Added & Specialty Products; Project- Adding Value with Fermentation	Value Added & Specialty Products; PLEASE NOTE: Due to space limitations, the narrative and associated activity are listed on one line. Several lessons and corresponding activities satisfy this standard.
(11) The student assesses the reaction of leavening agents in baked products. The student is expected to:	(A) identify various leavening agents and describe their role	(i) identify various leavening agents	Student/Teacher	Narrative	9781614592228	Chemical Processes in Food Science	
			Student/Teacher	Activity	9781614592228	Activity- Leavening; Student Handout- Types of Leaveners	Chemical Processes in Food Science
(11) The student assesses the reaction of leavening agents in baked products. The student is expected to:	(A) identify various leavening agents and describe their role	(ii) describe the role of various leavening agents	Student/Teacher	Narrative	9781614592228	Chemical Processes in Food Science	
			Student/Teacher	Activity	9781614592228	Activity- Leavening; Recipes- Hot Rolls; Student Handout- Types of Leaveners	Chemical Processes in Food Science
(11) The student assesses the reaction of leavening agents in baked products. The student is expected to:	(B) analyze the role of acids as leavening agents	(i) analyze the role of acids as leavening agents	Student/Teacher	Narrative	9781614592228	Chemical Processes in Food Science	
			Student/Teacher	Activity	9781614592228	Activity- Leavening; Recipes- Hot Rolls; Student Handout- Types of Leaveners	Chemical Processes in Food Science
(11) The student assesses the reaction of leavening agents in baked products. The student is expected to:	(C) compare doughs and batters	(i) compare doughs and batters	Student/Teacher	Narrative	9781614592228	Chemical Processes in Food Science; Student Handout - Batters, Doughs & Leaveners	
			Student/Teacher	Activity	9781614592228	Activity- Leavening; Recipes- Hot Rolls; Activity - Batter vs Dough Venn Diagram	Chemical Processes in Food Science
(11) The student assesses the reaction of leavening agents in baked products. The student is expected to:	(D) conduct laboratory experiments with various leavening agents using the scientific processes	(i) conduct laboratory experiments with various leavening agents using the scientific processes	Student/Teacher	Narrative	9781614592228	Chemical Processes in Food Science	
			Student/Teacher	Activity	9781614592228	Activity- Leavening; Recipes- Hot Rolls; Student Handout- Types of Leaveners	Chemical Processes in Food Science
(11) The student assesses the reaction of leavening agents in baked products. The student is expected to:	(E) create baked products using various leavening agents	(i) create baked products using various leavening agents	Student/Teacher	Narrative	9781614592228	Chemical Processes in Food Science	
			Student/Teacher	Activity	9781614592228	Recipes- Hot Rolls; Student Handout- Types of Leaveners	Chemical Processes in Food Science

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(12) The student explores the roles of food additives. The student is expected to:	(A) evaluate the various types of food additives such as incidental, intentional, natural, and artificial	(i) evaluate the various types of food additives	Student/Teacher	Narrative	9781614592228	The Science in Food Handling & Storage	
			Student/Teacher	Activity	9781614592228	Activity- Food Additive Search; Student Handout- Types of Food Additives	The Science in Food Handling & Storage
			Student/Teacher	Narrative	9781614592228	Food & the Government	
			Student/Teacher	Activity	9781614592228	Project- Food Additives Poster; Vocabulary Handout	Food & the Government
(12) The student explores the roles of food additives. The student is expected to:	(B) investigate the various roles of food additives such as food preservation, nutritive value, and sensory characteristics	(i) investigate the various roles of food additives	Student/Teacher	Narrative	9781614592228	The Science in Food Handling & Storage	
			Student/Teacher	Activity	9781614592228	Activity- Food Additive Search; Student Handout- Types of Food Additives	The Science in Food Handling & Storage
			Student/Teacher	Narrative	9781614592228	Food & the Government	
			Student/Teacher	Activity	9781614592228	Project- Food Additives Poster; Vocabulary Handout	Food & the Government
(12) The student explores the roles of food additives. The student is expected to:	(C) research agencies involved in regulating food additives	(i) research agencies involved in regulating food additives	Student/Teacher	Narrative	9781614592228	Food & the Government	
			Student/Teacher	Activity	9781614592228	Activity- Government's Role in Food Chart; Activity- Government's Role in Food Chart Answer Key; Project- FDA Website Scavenger Hunt; Project- FDA Website Scavenger Hunt Answer Key; Project- Food Additives Poster	Food & the Government
(13) The student analyzes the processes of energy production in food. The student is expected to:	(A) discuss molecular motion and temperature	(i) discuss molecular motion and temperature	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Metabolism & Energy; Student Handout - Energy & Temperature	
			Student/Teacher	Activity	9781614592228	Activity- Food Chain Transfer of Energy; Activity- My Daily Caloric Intake; Activity - Molecular Motion & Temperature; Activity - Molecular Motion & Temperature Teacher Instruction Sheet	A Closer Look at Nutrition: Metabolism & Energy
(13) The student analyzes the processes of energy production in food. The student is expected to:	(B) examine heat transfer processes such as conduction, convection, and radiation	(i) examine heat transfer processes	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Metabolism & Energy	
			Student/Teacher	Activity	9781614592228	Activity- Food Chain Transfer of Energy; Activity- My Daily Caloric Intake; Student Handout- Energy & Temperature	A Closer Look at Nutrition: Metabolism & Energy
(13) The student analyzes the processes of energy production in food. The student is expected to:	(C) investigate the role of latent heat in phase changes in food production such as crystallization and condensation	(i) investigate the role of latent heat in phase changes in food production	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Metabolism & Energy	
			Student/Teacher	Activity	9781614592228	Activity- Food Chain Transfer of Energy; Activity- My Daily Caloric Intake; Student Handout- Energy & Temperature	A Closer Look at Nutrition: Metabolism & Energy
			Student/Teacher	Narrative	9781614592228	Introduction to Culinary Techniques & Methods	
			Student/Teacher	Activity	9781614592228	Project - Heat & Food Production	Introduction to Culinary Techniques & Methods
(13) The student analyzes the processes of energy production in food. The student is expected to:	(D) analyze rates of reaction using various temperatures	(i) analyze rates of reaction using various temperatures	Student/Teacher	Narrative	9781614592228	Scientific Principles: Chemical Properties	
			Student/Teacher	Activity	9781614592228	Activity- Reaction Rate Race	Scientific Principles: Chemical Properties

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(14) The student evaluates the properties of carbohydrates in food and their effects on food production. The student is expected to:	(A) discuss photosynthesis	(i) discuss photosynthesis	Student/Teacher	Narrative	9781614592228	Fundamental Plant Processes	
			Student/Teacher	Activity	9781614592228	Project- Photosynthesis Diagram; Vocabulary Handout	Fundamental Plant Processes
(14) The student evaluates the properties of carbohydrates in food and their effects on food production. The student is expected to:	(B) identify the chemical structures of carbohydrates	(i) identify the chemical structures of carbohydrates	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Carbohydrates	
			Student/Teacher	Activity	9781614592228	Activity- Carbohydrate Production Flow Chart; Activity- Testing for Carbohydrates; Project- How Many Carbohydrates Do I Consume in a Day; Student Handout- Structures & Functions of Carbohydrates	A Closer Look at Nutrition: Carbohydrates
(14) The student evaluates the properties of carbohydrates in food and their effects on food production. The student is expected to:	(C) describe the functions of carbohydrates in food production such as a caramelizing agent, crystallizing agent, and thickening agent	(i) describe the functions of carbohydrates in food production	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Carbohydrates	
			Student/Teacher	Activity	9781614592228	Activity- Carbohydrate Production Flow Chart; Activity- Testing for Carbohydrates; Activity- Testing for Carbohydrates Teacher Instruction Sheet; Student Handout- Structures & Functions of Carbohydrates	A Closer Look at Nutrition: Carbohydrates
(14) The student evaluates the properties of carbohydrates in food and their effects on food production. The student is expected to:	(D) compare the structures of simple and complex carbohydrates and how these structures affect food production	(i) compare the structures of simple and complex carbohydrates	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Carbohydrates	
			Student/Teacher	Activity	9781614592228	Activity- Carbohydrate Production Flow Chart; Activity- Testing for Carbohydrates; Activity- Testing for Carbohydrates Teacher Instruction Sheet; Student Handout- Structures & Functions of Carbohydrates; Activity - Carbohydrates in Food Production	A Closer Look at Nutrition: Carbohydrates
(14) The student evaluates the properties of carbohydrates in food and their effects on food production. The student is expected to:	(D) compare the structures of simple and complex carbohydrates and how these structures affect food production	(ii) compare how [the structures of simple and complex carbohydrates] affect food production	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Carbohydrates	
			Student/Teacher	Activity	9781614592228	Activity- Carbohydrate Production Flow Chart; Activity- Testing for Carbohydrates; Activity- Testing for Carbohydrates Teacher Instruction Sheet; Student Handout- Structures & Functions of Carbohydrates	A Closer Look at Nutrition: Carbohydrates
(14) The student evaluates the properties of carbohydrates in food and their effects on food production. The student is expected to:	(E) describe various process such as gelatinization, retrogradation, and syneresis in food production	(i) describe various process in food production	Student/Teacher	Narrative	9781614592228	Chemical Processes in Food Science	
			Student/Teacher	Activity	9781614592228	Activity- Retrogradation; Vocabulary Handout; Recipes- Chocolate Pie	Chemical Processes in Food Science

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(14) The student evaluates the properties of carbohydrates in food and their effects on food production. The student is expected to:	(F) create food products using simple and/or complex carbohydrates	(i) create food products using simple and/or complex carbohydrates	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Carbohydrates	
			Student/Teacher	Activity	9781614592228	Activity- Carbohydrate Production Flow Chart: Student Handout- Structures & Functions of Carbohydrates	A Closer Look at Nutrition: Carbohydrates
(15) The student evaluates the properties of fats in food and their effects on food production. The student is expected to:	(A) identify the chemical structure of saturated and unsaturated fats	(i) identify the chemical structure of saturated fats	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Fats & Lipids	
			Student/Teacher	Activity	9781614592228	Activity- Fat Structures	A Closer Look at Nutrition: Fats & Lipids
(15) The student evaluates the properties of fats in food and their effects on food production. The student is expected to:	(A) identify the chemical structure of saturated and unsaturated fats	(ii) identify the chemical structure of unsaturated fats	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Fats & Lipids	
			Student/Teacher	Activity	9781614592228	Activity- Fat Structures	A Closer Look at Nutrition: Fats & Lipids
(15) The student evaluates the properties of fats in food and their effects on food production. The student is expected to:	(B) compare the properties of saturated and unsaturated fats	(i) compare the properties of saturated and unsaturated fats	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Fats & Lipids	
			Student/Teacher	Activity	9781614592228	Activity- Fat Structures	A Closer Look at Nutrition: Fats & Lipids
(15) The student evaluates the properties of fats in food and their effects on food production. The student is expected to:	(C) examine the functions of fats in food production	(i) examine the functions of fats in food production	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Fats & Lipids	
			Student/Teacher	Activity	9781614592228	Project- Cooking with Fats; Project- Fat Content; Activity- What Does Fat Free Really Mean	A Closer Look at Nutrition: Fats & Lipids
(15) The student evaluates the properties of fats in food and their effects on food production. The student is expected to:	(D) explore methods for controlling fat oxidation	(i) explore methods for controlling fat oxidation	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Fats & Lipids	
			Student/Teacher	Activity	9781614592228	Activity- Lipid Oxidation; Activity- Lipid Oxidation Teacher Instruction Sheet	A Closer Look at Nutrition: Fats & Lipids
(15) The student evaluates the properties of fats in food and their effects on food production. The student is expected to:	(E) analyze the effects of temperature on fats in food preparation	(i) analyze the effects of temperature on fats in food preparation	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Fats & Lipids	
			Student/Teacher	Activity	9781614592228	Project- Cooking with Fats; Project- Fat Content; Activity- What Does Fat Free Really Mean	A Closer Look at Nutrition: Fats & Lipids
(15) The student evaluates the properties of fats in food and their effects on food production. The student is expected to:	(F) conduct laboratory experiments using the scientific processes to explore the functions of fats in food production	(i) conduct laboratory experiments using the scientific processes to explore the functions of fats in food production	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Fats & Lipids	
			Student/Teacher	Activity	9781614592228	Project- Cooking with Fats; Project- Fat Content; Activity- What Does Fat Free Really Mean; Activity- Testing for Fats; Activity- Testing for Fats Teacher Instruction Sheet	A Closer Look at Nutrition: Fats & Lipids

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(15) The student evaluates the properties of fats in food and their effects on food production. The student is expected to:	(G) create food products using saturated and unsaturated fats	(i) create food products using saturated fats	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Fats & Lipids	
			Student/Teacher	Activity	9781614592228	Project- Cooking with Fats; Project- Fat Content	A Closer Look at Nutrition: Fats & Lipids
(15) The student evaluates the properties of fats in food and their effects on food production. The student is expected to:	(G) create food products using saturated and unsaturated fats	(ii) create food products using unsaturated fats	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Fats & Lipids	
			Student/Teacher	Activity	9781614592228	Project- Cooking with Fats; Project- Fat Content	A Closer Look at Nutrition: Fats & Lipids
(16) The student evaluates the properties of proteins and their effects on food production. The student is expected to:	(A) explain the processes of protein denaturation and coagulation	(i) explain the process of protein denaturation	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Proteins & Amino Acids	
			Student/Teacher	Activity	9781614592228	Activity- Protein Poster; Activity- Protein Structures	A Closer Look at Nutrition: Proteins & Amino Acids
(16) The student evaluates the properties of proteins and their effects on food production. The student is expected to:	(A) explain the processes of protein denaturation and coagulation	(ii) explain the process of protein coagulation	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Proteins & Amino Acids; Student Handout - Protein	
			Student/Teacher	Activity	9781614592228	Activity- Protein Poster; Activity- Protein Structures; Activity - Proteins & Food Preparation; Activity - Proteins & Food Preparation Teacher Instruction Sheet	A Closer Look at Nutrition: Proteins & Amino Acids
(16) The student evaluates the properties of proteins and their effects on food production. The student is expected to:	(B) examine the functions of proteins in food productions such as emulsifiers, foams, and gluten formation	(i) examine the functions of proteins in food productions	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Proteins & Amino Acids; Student Handout - Protein	
			Student/Teacher	Activity	9781614592228	Activity- Protein Poster; Activity- Protein Structures; Activity - Proteins & Food Preparation; Activity - Proteins & Food Preparation Teacher Instruction Sheet	A Closer Look at Nutrition: Proteins & Amino Acids
(16) The student evaluates the properties of proteins and their effects on food production. The student is expected to:	(C) analyze the effect of temperature on protein in food production and storage	(i) analyze the effect of temperature on protein in food production	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Proteins & Amino Acids; Student Handout - Protein	
			Student/Teacher	Activity	9781614592228	Activity- Protein Poster; Activity- Protein Structures; Activity - Proteins & Food Preparation; Activity - Proteins & Food Preparation Teacher Instruction Sheet	A Closer Look at Nutrition: Proteins & Amino Acids
(16) The student evaluates the properties of proteins and their effects on food production. The student is expected to:	(C) analyze the effect of temperature on protein in food production and storage	(ii) analyze the effect of temperature on protein in food storage	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Proteins & Amino Acids; Student Handout - Protein	
			Student/Teacher	Activity	9781614592228	Activity- Protein Poster; Activity- Protein Structures; Activity - Proteins & Food Preparation; Activity - Proteins & Food Preparation Teacher Instruction Sheet	A Closer Look at Nutrition: Proteins & Amino Acids
(16) The student evaluates the properties of proteins and their effects on food production. The student is expected to:	(D) explore moist and dry heat methods for preparing protein-rich foods	(i) explore moist methods for preparing protein-rich foods	Student/Teacher	Narrative	9781614592228	Introduction to Culinary Techniques & Methods	
			Student/Teacher	Activity	9781614592228	Project- In the Kitchen Cookery Method Demonstration; Project- Recipe Binder Cooking Techniques	Introduction to Culinary Techniques & Methods

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(16) The student evaluates the properties of proteins and their effects on food production. The student is expected to:	(D) explore moist and dry heat methods for preparing protein-rich foods	(ii) explore dry heat methods for preparing protein-rich foods	Student/Teacher	Narrative	9781614592228	Introduction to Culinary Techniques & Methods	
			Student/Teacher	Activity	9781614592228	Project- In the Kitchen Cookery Method Demonstration; Project- Recipe Binder Cooking Techniques	Introduction to Culinary Techniques & Methods
(16) The student evaluates the properties of proteins and their effects on food production. The student is expected to:	(E) create food products using protein	(i) create food products using protein	Student/Teacher	Narrative	9781614592228	Introduction to Culinary Techniques & Methods	
			Student/Teacher	Activity	9781614592228	Project- In the Kitchen Cookery Method Demonstration; Project- Recipe Binder Cooking Techniques	Introduction to Culinary Techniques & Methods
(17) The student evaluates the properties of vitamins and minerals and their effects on food production. The student is expected to:	(A) discuss the functions of vitamins and minerals in food production	(i) discuss the functions of vitamins in food production	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Vitamins, Minerals & Water; Student Handout - Vitamins, Minerals & Food Production	
			Student/Teacher	Activity	9781614592228	Project- Brochure; Project- Presentation	A Closer Look at Nutrition: Vitamins, Minerals & Water
(17) The student evaluates the properties of vitamins and minerals and their effects on food production. The student is expected to:	(A) discuss the functions of vitamins and minerals in food production	(ii) discuss the functions of minerals in food production	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Vitamins, Minerals & Water; Student Handout - Vitamins, Minerals & Food Production	
			Student/Teacher	Activity	9781614592228	Project- Presentation	A Closer Look at Nutrition: Vitamins, Minerals & Water
(17) The student evaluates the properties of vitamins and minerals and their effects on food production. The student is expected to:	(B) compare the effects of food production on water- and fat-soluble vitamins	(i) compare the effects of food production on water-soluble vitamins	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Vitamins, Minerals & Water; Student Handout - Vitamins, Minerals & Food Production	
			Student/Teacher	Activity	9781614592228	Project- Presentation	A Closer Look at Nutrition: Vitamins, Minerals & Water
(17) The student evaluates the properties of vitamins and minerals and their effects on food production. The student is expected to:	(B) compare the effects of food production on water- and fat-soluble vitamins	(ii) compare the effects of food production on fat-soluble vitamins	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Vitamins, Minerals & Water; Student Handout - Vitamins, Minerals & Food Production	
			Student/Teacher	Activity	9781614592228	Project- Presentation	A Closer Look at Nutrition: Vitamins, Minerals & Water
(17) The student evaluates the properties of vitamins and minerals and their effects on food production. The student is expected to:	(C) assess the interrelationships among vitamins and minerals in food production	(i) assess the interrelationships among vitamins and minerals in food production	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Vitamins, Minerals & Water; Student Handout - Vitamins, Minerals & Food Production	
			Student/Teacher	Activity	9781614592228	Activity- Vitamins, Minerals & Food Production	A Closer Look at Nutrition: Vitamins, Minerals & Water
(18) The student evaluates the properties of water and their effects on food production. The student is expected to:	(A) identify the properties of water	(i) identify the properties of water	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Vitamins, Minerals & Water; Student Handout - Water & Food Production	
			Student/Teacher	Activity	9781614592228	Activity - Effects of Water on Food Production; Activity - Effects of Water on Food Production Teacher Instruction Sheet	A Closer Look at Nutrition: Vitamins, Minerals & Water

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(18) The student evaluates the properties of water and their effects on food production. The student is expected to:	(B) compare the effects of hard and soft water on food production	(i) compare the effects of hard and soft water on food production	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Vitamins, Minerals & Water; Student Handout - Water & Food Production	
			Student/Teacher	Activity	9781614592228	Activity - Effects of Water on Food Production; Activity - Effects of Water on Food Production Teacher Instruction Sheet	A Closer Look at Nutrition: Vitamins, Minerals & Water
(18) The student evaluates the properties of water and their effects on food production. The student is expected to:	(C) analyze the phases of water and their effects on food production	(i) analyze the phases of water on food production	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Vitamins, Minerals & Water; Student Handout - Water & Food Production	
			Student/Teacher	Activity	9781614592228	Activity - Effects of Water on Food Production; Activity - Effects of Water on Food Production Teacher Instruction Sheet	A Closer Look at Nutrition: Vitamins, Minerals & Water
(18) The student evaluates the properties of water and their effects on food production. The student is expected to:	(C) analyze the phases of water and their effects on food production	(ii) analyze the effects [of phases of water] on food production	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Vitamins, Minerals & Water; Student Handout - Water & Food Production	
			Student/Teacher	Activity	9781614592228	Activity - Effects of Water on Food Production; Activity - Effects of Water on Food Production Teacher Instruction Sheet	A Closer Look at Nutrition: Vitamins, Minerals & Water
(18) The student evaluates the properties of water and their effects on food production. The student is expected to:	(D) explain the functions of water in food production such as a heat medium and a solvent and create a food product	(i) explain the functions of water in food production	Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Vitamins, Minerals & Water	
			Student/Teacher	Activity	9781614592228	Project - Brochure	A Closer Look at Nutrition: Vitamins, Minerals & Water
(18) The student evaluates the properties of water and their effects on food production. The student is expected to:	(D) explain the functions of water in food production such as a heat medium and a solvent and create a food product	(ii) create a food product	Student/Teacher	Narrative	9781614592228	Chemical Processes in Food Science	
			Student/Teacher	Activity	9781614592228	Project- Food Show	Chemical Processes in Food Science
			Student/Teacher	Narrative	9781614592228	Grains, Legumes & Pastas	
			Student/Teacher	Activity	9781614592228	Project- In the Kitchen Grains & Legumes; Project- In the Kitchen Pastas & Dumplings	Grains, Legumes & Pastas
(18) The student evaluates the properties of water and their effects on food production. The student is expected to:	(E) conduct laboratory experiments using the scientific processes to explore the functions of water in food productions	(i) conduct laboratory experiments using the scientific processes to explore the functions of water in food productions	Student/Teacher	Narrative	9781614592228	The Science in Food Preservation	
			Student/Teacher	Activity	9781614592228	Project- Making Jerky	The Science in Food Preservation
			Student/Teacher	Narrative	9781614592228	Grains, Legumes & Pastas	
			Student/Teacher	Activity	9781614592228	Project- In the Kitchen Grains & Legumes; Project- In the Kitchen Pastas & Dumplings	Grains, Legumes & Pastas
			Student/Teacher	Narrative	9781614592228	Chemical Processes in Food Science: Recipes- Hot Rolls; Recipes- Polish Brined Dill Pickles; Project- Food Show	Chemical Processes in Food Science: PLEASE NOTE: Due to space limitations, the narrative and associated activity are listed on one line. Several lessons and corresponding activities satisfy this standard.

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(18) The student evaluates the properties of water and their effects on food production. The student is expected to:	(F) create food products using water as a heat medium or a solvent	(i) create food products using water as a heat medium or a solvent	Student/Teacher	Narrative	9781614592228	Introduction to Culinary Techniques & Methods	
			Student/Teacher	Activity	9781614592228	Project- Recipe Binder: Cooking Techniques	Introduction to Culinary Techniques & Methods
			Student/Teacher	Narrative	9781614592228	Chemical Processes in Food Science	
			Student/Teacher	Activity	9781614592228	Recipes- Hot Rolls; Recipes- Polish Brined Dill Pickles; Project- Food Show	Chemical Processes in Food Science
			Student/Teacher	Narrative	9781614592228	Grains, Legumes & Pastas; Project- In the Kitchen Grains & Legumes; Project- In the Kitchen Pastas & Dumplings	Grains, Legumes & Pastas; PLEASE NOTE: Due to space limitations, the narrative and associated activity are listed on one line. Several lessons and corresponding activities satisfy this standard.
(19) The student analyzes processes that destroy bacteria during food production. The student is expected to:	(A) examine the food irradiation process	(i) examine the food irradiation process	Student/Teacher	Narrative	9781614592228	The Science in Food Preservation	
			Student/Teacher	Activity	9781614592228	Activity-Food Irradiation Debate; Project- Food Preservation Blog	The Science in Food Preservation
(19) The student analyzes processes that destroy bacteria during food production. The student is expected to:	(B) investigate the pasteurization process	(i) investigate the pasteurization process	Student/Teacher	Narrative	9781614592228	The Science in Food Preservation	
			Student/Teacher	Activity	9781614592228	Project- Food Preservation Blog; Activity- Pasteurization Process	The Science in Food Preservation
(20) The student examines packaging and labeling guidelines. The student is expected to:	(A) research federal food packaging guidelines	(i) research federal food packaging guidelines	Student/Teacher	Narrative	9781614592228	Food Packaging Options & Guidelines	
			Student/Teacher	Activity	9781614592228	Activity- Food Packaging Guidelines; Project- Packaging Analysis	Food Packaging Options & Guidelines
(20) The student examines packaging and labeling guidelines. The student is expected to:	(B) analyze components of appropriate commercial food containers	(i) analyze components of appropriate commercial food containers	Student/Teacher	Narrative	9781614592228	Food Packaging Options & Guidelines	
			Student/Teacher	Activity	9781614592228	Activity- Food Packaging Guidelines; Project- Packaging Analysis; Project - Packaging Savvy	Food Packaging Options & Guidelines
(20) The student examines packaging and labeling guidelines. The student is expected to:	(C) describe controlled-atmosphere packaging	(i) describe controlled-atmosphere packaging	Student/Teacher	Narrative	9781614592228	Food Packaging Options & Guidelines	
			Student/Teacher	Activity	9781614592228	Activity- Human Atmosphere Packaging; Vocabulary Handout	Food Packaging Options & Guidelines
(20) The student examines packaging and labeling guidelines. The student is expected to:	(D) describe information required on a food label	(i) describe information required on a food label	Student/Teacher	Narrative	9781614592228	Food Packaging Options & Guidelines	
			Student/Teacher	Activity	9781614592228	Activity- Food Packaging Guidelines; Project- Packaging Analysis; Activity- Developing a Diet	Food Packaging Options & Guidelines

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(21) The student analyzes food preservation processes. The student is expected to:	(A) describe reasons for food preservation	(i) describe reasons for food preservation	Student/Teacher	Narrative	9781614592228	The Science in Food Preservation	
			Student/Teacher	Activity	9781614592228	Project- Food Preservation Blog: Vocabulary Handout	The Science in Food Preservation
(21) The student analyzes food preservation processes. The student is expected to:	(B) compare methods of dehydration and create a food product using dehydration	(i) compare methods of dehydration	Student/Teacher	Narrative	9781614592228	The Science in Food Preservation	
			Student/Teacher	Drop-down menu	9781614592228	Project- Food Preservation Blog: Vocabulary Handout	The Science in Food Preservation
(21) The student analyzes food preservation processes. The student is expected to:	(B) compare methods of dehydration and create a food product using dehydration	(ii) create a food product using dehydration	Student/Teacher	Narrative	9781614592228	The Science in Food Preservation	
			Student/Teacher	Activity	9781614592228	Student Handout- Dehydration Recipe	The Science in Food Preservation
(21) The student analyzes food preservation processes. The student is expected to:	(C) analyze various methods of personal and commercial food canning	(i) analyze various methods of personal food canning	Student/Teacher	Narrative	9781614592228	The Science in Food Preservation	
			Student/Teacher	Activity	9781614592228	Activity- Food Canning; Project- Commercial Canning	The Science in Food Preservation
(21) The student analyzes food preservation processes. The student is expected to:	(C) analyze various methods of personal and commercial food canning	(ii) analyze various methods of commercial food canning	Student/Teacher	Narrative	9781614592228	The Science in Food Preservation	
			Student/Teacher	Activity	9781614592228	Activity- Food Canning; Project- Commercial Canning	The Science in Food Preservation
(21) The student analyzes food preservation processes. The student is expected to:	(D) examine the various methods of personal and commercial food freezing	(i) examine the various methods of personal food freezing	Student/Teacher	Narrative	9781614592228	The Science in Food Preservation	
			Student/Teacher	Activity	9781614592228	Project- Food Preservation Blog: Activity- Home Freezing vs Commercial Freezing	The Science in Food Preservation
			Student/Teacher	Narrative	9781614592228	A Closer Look at Nutrition: Vitamins, Minerals & Water; Student Handout - Water & Food Production	
(21) The student analyzes food preservation processes. The student is expected to:	(D) examine the various methods of personal and commercial food freezing	(ii) examine the various methods of commercial food freezing	Student/Teacher	Narrative	9781614592228	The Science in Food Preservation	
			Student/Teacher	Activity	9781614592228	Project- Food Preservation Blog: Activity- Home Freezing vs Commercial Freezing	The Science in Food Preservation