STATE MATCH SUPPLEMENT

North Dakota Content Standards

English Language Arts,
Mathematics, and Science
Grades 8–12

and

EXPLORE®, PLAN®, the ACT®, and WorkKeys®

November 2009

ACT®

List of Supplement Tables

List of Supplement Tables

Preface

This document is a supplement to the *State Match North Dakota Content Standards English Language Arts, Mathematics, and Science Grades 8–12 and EXPLORE, PLAN, the ACT, and WorkKeys (November 2009)*. This supplement identifies specific ACT College Readiness Standards that correspond to each North Dakota Standard in a side-by-side format. The left side of each page presents the North Dakota Content Standards (highlighted if measured by ACT's corresponding testing program). The right side of each page presents the specific ACT College Readiness Standard(s) and WorkKeys skill(s) that correspond to each North Dakota Standard.

North Dakota Content Standards listed here are from the North Dakota Content Standards as presented on the North Dakota Department of Public Instruction's website in September 2009.

SUPPLEMENT
TABLES 1A–1G:

ENGLISH LANGUAGE ARTS

TABLE 1A

NORTH DAKOTA Grade 8 English Language Arts Content Standards	EXPLORE College Readiness Standards
Standard 1: Students engage in the research process.	
PLANNING RESEARCH	
8.1.1. Use questions to narrow research topic	
ACCESSING INFORMATION	
8.1.2. Use a variety of primary and/or secondary sources to access information i.e., computer catalogs, magazines, newspapers, and primary sources	
EVALUATING RESEARCH INFORMATION	
8.1.3. Evaluate sources that present different perspectives e.g., by identifying sources of bias and distinguishing between primary and secondary sources	
ORGANIZING AND PRESENTING RESEARCH INFORMATION	
8.1.4. Use information from multiple sources when presenting research findings to defined audiences	
PRESENTATION	
8.1.5. Write a research report using a thesis	
EVALUATE THE RESEARCH	
8.1.6. Evaluate the research process	
8.1.7. Evaluate a research product using a rubric	

TABLE 1A

NORTH DAKOTA Grade 8 English Language Arts Content Standards	EXPLORE Reading College Readiness Standards
Standard 2: Students engage in the reading process.	
LITERARY AND INFORMATIONAL GENRES	
8.2.1. Compare or contrast characteristics of fiction and nonfiction genres	
READING STRATEGIES FOR INTERPRETING MEANING OF TEXTS	
8.2.2. Use prior knowledge and experiences to aid text comprehension	
8.2.3. Use a variety of strategies to construct meaning from text e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, discussing	**Main Ideas and Author's Approach:** Recognize a clear intent of an author or narrator in uncomplicated literary narratives Identify a clear main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages **Supporting Details:** Locate basic facts (e.g., names, dates, events) clearly stated in a passage Locate simple details at the sentence and paragraph level in uncomplicated passages Recognize a clear function of a part of an uncomplicated passage Locate important details in uncomplicated passages Make simple inferences about how details are used in passages Locate and interpret minor or subtly stated details in uncomplicated passages **Sequential, Comparative, and Cause-Effect Relationships:** Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages Recognize clear cause-effect relationships described within a single sentence in a passage Identify relationships between main characters in uncomplicated literary narratives Recognize clear cause-effect relationships within a single paragraph in uncomplicated literary narratives Order simple sequences of events in uncomplicated literary narratives Identify clear relationships between people, ideas, and so on in uncomplicated passages Identify clear cause-effect relationships in uncomplicated passages

TABLE 1A

NORTH DAKOTA Grade 8 English Language Arts Content Standards	EXPLORE Reading College Readiness Standards
Standard 2:	
	Order sequences of events in uncomplicated passages Understand relationships between people, ideas, and so on in uncomplicated passages Understand implied or subtly stated cause-effect relationships in uncomplicated passages **Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages **Generalizations and Conclusions:** Draw simple generalizations and conclusions about the main characters in uncomplicated literary narratives Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives
PURPOSES FOR READING	
8.2.4. Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing	
LITERARY ELEMENTS AND TECHNIQUES	
8.2.5. Identify theme, protagonist, antagonist, and dialect in literary texts	**Main Ideas and Author's Approach:** Summarize basic events and ideas in more challenging passages
8.2.6. Identify figurative language in literary texts including personification, simile, metaphor, and hyperbole	**Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages
8.2.7. Make connections between literature and historical period, culture, and society	
8.2.8. Explain the uses of sound devices in literary texts, including alliteration, onomatopoeia, rhyme, repetition, and rhythm	

TABLE 1A

NORTH DAKOTA Grade 8 English Language Arts Content Standards	EXPLORE Reading College Readiness Standards
Standard 2:	
VOCABULARY	
8.2.9. Use vocabulary building skills and strategies e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus, to determine the meaning of unfamiliar words and make sense of text	**Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages
8.2.10. Build vocabulary e.g., Greek and Latin roots, dictionary information, content area terminology	

TABLE 1A

NORTH DAKOTA Grade 8 English Language Arts Content Standards	EXPLORE English College Readiness Standards
Standard 3: Students engage in the writing process.	
INFORMATIVE WRITING	
8.3.1. Compose informative writing, e.g., research, biographies, autobiographies, news articles, interviews	
NARRATIVE WRITING	
8.3.2. Write short stories that include story elements e.g., dialogue, action, physical description, background description, character development	
PERSUASIVE WRITING	
8.3.3. Produce persuasive writing e.g., editorials, essays, business letters, opinions	
PREWRITING	
8.3.4. Use free writing and journal writing to develop ideas for writing topics	
8.3.5. Use language and format appropriate for intended audience and purpose	
DRAFTING	
8.3.6. Use prewriting product to create a first draft emphasizing details and referencing sources	
8.3.7. Incorporate grade-level appropriate vocabulary in writing	
8.3.8. Use organizational patterns e.g., introduction, body, conclusion or exposition/body/resolution	
REVISING AND EDITING	
8.3.9. Use criteria to evaluate own and others' writing	
8.3.10. Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, fluency	**Topic Development in Terms of Purpose and Focus:** Identify the basic purpose or role of a specified phrase or sentence Delete a clause or sentence because it is obviously irrelevant to the essay Identify the central idea or main topic of a straightforward piece of writing Determine relevancy when presented with a variety of sentence-level details Identify the focus of a simple essay, applying that knowledge to add a sentence that sharpens that focus or to determine if an essay has met a specified goal Delete material primarily because it disturbs the flow and development of the paragraph Add a sentence to accomplish a fairly straightforward purpose such as illustrating a given statement **Organization, Unity, and Coherence:** Use conjunctive adverbs or phrases to show time relationships in simple narrative essays (e.g., *then*, *this time*) Select the most logical place to add a sentence in a paragraph

TABLE 1A

NORTH DAKOTA Grade 8 English Language Arts Content Standards	EXPLORE English College Readiness Standards
Standard 3:	
	Use conjunctive adverbs or phrases to express straightforward logical relationships (e.g., *first*, *afterward*, *in response*) Decide the most logical place to add a sentence in an essay Add a sentence that introduces a simple paragraph Determine the need for conjunctive adverbs or phrases to create subtle logical connections between sentences (e.g., *therefore*, *however*, *in addition*) Rearrange the sentences in a fairly uncomplicated paragraph for the sake of logic Add a sentence to introduce or conclude the essay or to provide a transition between paragraphs when the essay is fairly straightforward **Word Choice in Terms of Style, Tone, Clarity, and Economy:** Revise sentences to correct awkward and confusing arrangements of sentence elements Revise vague nouns and pronouns that create obvious logic problems Delete obviously synonymous and wordy material in a sentence Revise expressions that deviate from the style of an essay Delete redundant material when information is repeated in different parts of speech (e.g., "alarmingly startled") Use the word or phrase most consistent with the style and tone of a fairly straightforward essay Determine the clearest and most logical conjunction to link clauses Revise a phrase that is redundant in terms of the meaning and logic of the entire sentence Identify and correct ambiguous pronoun references Use the word or phrase most appropriate in terms of the content of the sentence and tone of the essay
8.3.11. Edit for grammar, mechanics, usage, and spelling	**Sentence Structure and Formation:** Use conjunctions or punctuation to join simple clauses Revise shifts in verb tense between simple clauses in a sentence or between simple adjoining sentences Determine the need for punctuation and conjunctions to avoid awkward-sounding sentence fragments and fused sentences Decide the appropriate verb tense and voice by considering the meaning of the entire sentence Recognize and correct marked disturbances of sentence flow and structure (e.g., participial phrase fragments, missing or incorrect relative pronouns, dangling or misplaced modifiers) Revise to avoid faulty placement of phrases and faulty coordination and subordination of clauses in sentences with subtle structural problems

TABLE 1A

NORTH DAKOTA Grade 8 English Language Arts Content Standards	EXPLORE English College Readiness Standards
Standard 3:	
	Maintain consistent verb tense and pronoun person on the basis of the preceding clause or sentence **Conventions of Usage:** Solve such basic grammatical problems as how to form the past and past participle of irregular but commonly used verbs and how to form comparative and superlative adjectives Solve such grammatical problems as whether to use an adverb or adjective form, how to ensure straightforward subject-verb and pronoun-antecedent agreement, and which preposition to use in simple contexts Recognize and use the appropriate word in frequently confused pairs such as *there* and *their*, *past* and *passed*, and *led* and *lead* Use idiomatically appropriate prepositions, especially in combination with verbs (e.g., *long for*, *appeal to*) Ensure that a verb agrees with its subject when there is some text between the two Ensure that a pronoun agrees with its antecedent when the two occur in separate clauses or sentences Identify the correct past and past participle forms of irregular and infrequently used verbs and form present-perfect verbs by using *have* rather than *of* **Conventions of Punctuation:** Delete commas that create basic sense problems (e.g., between verb and direct object) Provide appropriate punctuation in straightforward situations (e.g., items in a series) Delete commas that disturb the sentence flow (e.g., between modifier and modified element) Use commas to set off simple parenthetical phrases Delete unnecessary commas when an incorrect reading of the sentence suggests a pause that should be punctuated (e.g., between verb and direct object clause) Use punctuation to set off complex parenthetical phrases Recognize and delete unnecessary commas based on a careful reading of a complicated sentence (e.g., between the elements of a compound subject or compound verb joined by *and*) Use apostrophes to indicate simple possessive nouns Recognize inappropriate uses of colons and semicolons
FINAL DRAFT	
No benchmark expectations at this level	
PUBLICATION/PRESENTATION	
8.3.12. Incorporate a variety of visual aids in publications	
8.3.13. Use computer technology to present written work	

TABLE 1A

NORTH DAKOTA Grade 8 English Language Arts Content Standards	EXPLORE College Readiness Standards
Standard 4: Students engage in the speaking and listening process.	
PLANNING FOR AN AUDIENCE/PURPOSE	
8.4.1. Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade	
8.4.2. Use supporting materials for topic development e.g., research, personal experience, literature, interview	
CONVERSATION, GROUP DISCUSSION, AND ORAL PRESENTATION	
8.4.3. Speak for different purposes e.g., group discussions, research presentations and demonstrations	
VERBAL AND NONVERBAL COMMUNICATION	
8.4.4. Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations	

TABLE 1A

NORTH DAKOTA Grade 8 English Language Arts Content Standards	EXPLORE College Readiness Standards
Standard 5: Students understand media.	
MEDIA GENRES	
8.5.1. Identify existing and developing media	
USING MEDIA FOR A PURPOSE	
8.5.2. Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes	
8.5.3. Construct media messages e.g., editorials, news articles, commentaries, web sites, commercials, advertisements	
INTERPRETING MEDIA	
8.5.4. Describe the role of the media in influencing and shaping public opinion	
8.5.5. Show how media messages influence people in various ways e.g., comprehensiveness, appeal to emotions, attitudes and behaviors, authenticity, stereotyping	
8.5.6. Define plagiarism and its consequences	
8.5.7. Define copyright	

TABLE 1A

NORTH DAKOTA Grade 8 English Language Arts Content Standards	EXPLORE English and Reading College Readiness Standards
Standard 6: Students understand and use principles of language.	
LANGUAGE CONVENTIONS/MECHANICS	
8.6.1. Use varied sentence structure i.e., simple, compound, complex, and inverted order	
8.6.2. Use conventions of grammar related to parts of speech; i.e., verbs progressive tense, complements	**English** College Readiness Standards **Sentence Structure and Formation:** Use conjunctions or punctuation to join simple clauses Revise shifts in verb tense between simple clauses in a sentence or between simple adjoining sentences Determine the need for punctuation and conjunctions to avoid awkward-sounding sentence fragments and fused sentences Decide the appropriate verb tense and voice by considering the meaning of the entire sentence Recognize and correct marked disturbances of sentence flow and structure (e.g., participial phrase fragments, missing or incorrect relative pronouns, dangling or misplaced modifiers) Revise to avoid faulty placement of phrases and faulty coordination and subordination of clauses in sentences with subtle structural problems Maintain consistent verb tense and pronoun person on the basis of the preceding clause or sentence **Conventions of Usage:** Solve such basic grammatical problems as how to form the past and past participle of irregular but commonly used verbs and how to form comparative and superlative adjectives Solve such grammatical problems as whether to use an adverb or adjective form, how to ensure straightforward subject-verb and pronoun-antecedent agreement, and which preposition to use in simple contexts Recognize and use the appropriate word in frequently confused pairs such as *there* and *their*, *past* and *passed*, and *led* and *lead* Use idiomatically appropriate prepositions, especially in combination with verbs (e.g., *long for*, *appeal to*) Ensure that a verb agrees with its subject when there is some text between the two Ensure that a pronoun agrees with its antecedent when the two occur in separate clauses or sentences Identify the correct past and past participle forms of irregular and infrequently used verbs and form present-perfect verbs by using *have* rather than *of*

TABLE 1A

NORTH DAKOTA Grade 8 English Language Arts Content Standards	EXPLORE English and Reading College Readiness Standards
Standard 6:	
8.6.3. Use grade-appropriate mechanics and usage i.e., capitalization: publications and in letters; punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; usage: misplaced modifiers	**English** College Readiness Standards **Sentence Structure and Formation:** Use conjunctions or punctuation to join simple clauses Revise shifts in verb tense between simple clauses in a sentence or between simple adjoining sentences Determine the need for punctuation and conjunctions to avoid awkward-sounding sentence fragments and fused sentences Decide the appropriate verb tense and voice by considering the meaning of the entire sentence Recognize and correct marked disturbances of sentence flow and structure (e.g., participial phrase fragments, missing or incorrect relative pronouns, dangling or misplaced modifiers) Revise to avoid faulty placement of phrases and faulty coordination and subordination of clauses in sentences with subtle structural problems Maintain consistent verb tense and pronoun person on the basis of the preceding clause or sentence **Conventions of Usage:** Solve such basic grammatical problems as how to form the past and past participle of irregular but commonly used verbs and how to form comparative and superlative adjectives Solve such grammatical problems as whether to use an adverb or adjective form, how to ensure straightforward subject-verb and pronoun-antecedent agreement, and which preposition to use in simple contexts Recognize and use the appropriate word in frequently confused pairs such as *there* and *their*, *past* and *passed*, and *led* and *lead* Use idiomatically appropriate prepositions, especially in combination with verbs (e.g., *long for*, *appeal to*) Ensure that a verb agrees with its subject when there is some text between the two Ensure that a pronoun agrees with its antecedent when the two occur in separate clauses or sentences Identify the correct past and past participle forms of irregular and infrequently used verbs and form present-perfect verbs by using *have* rather than *of* **Conventions of Punctuation:** Delete commas that create basic sense problems (e.g., between verb and direct object) Provide appropriate punctuation in straightforward situations (e.g., items in a series) Delete commas that disturb the sentence flow (e.g., between modifier and modified element) Use commas to set off simple parenthetical phrases

TABLE 1A

NORTH DAKOTA Grade 8 English Language Arts Content Standards	EXPLORE English and Reading College Readiness Standards
Standard 6:	
	Delete unnecessary commas when an incorrect reading of the sentence suggests a pause that should be punctuated (e.g., between verb and direct object clause) Use punctuation to set off complex parenthetical phrases Recognize and delete unnecessary commas based on a careful reading of a complicated sentence (e.g., between the elements of a compound subject or compound verb joined by *and*) Use apostrophes to indicate simple possessive nouns Recognize inappropriate uses of colons and semicolons
LANGUAGE CONTEXT	
8.6.4. Identify social differences in language e.g., the use of slang, cliché, formal and informal styles	
8.6.5. Identify cultural and regional differences in language use e.g., different dialects and language diversity	
8.6.6. Locate examples of professional uses of language including jargon and formal styles	
LITERARY ELEMENTS AND TECHNIQUES	
8.6.7. Use figurative language including simile, metaphor, alliteration, personification, onomatopoeia, hyperbole, and point of view	**Reading** College Readiness Standards **Main Ideas and Author's Approach:** Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages **Supporting Details:** Recognize a clear function of a part of an uncomplicated passage Make simple inferences about how details are used in passages **Sequential, Comparative, and Cause-Effect Relationships:** Identify clear relationships between people, ideas, and so on in uncomplicated passages Understand relationships between people, ideas, and so on in uncomplicated passages **Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages **Generalizations and Conclusions:** Draw simple generalizations and conclusions about the main characters in uncomplicated literary narratives

TABLE 1A

NORTH DAKOTA Grade 8 English Language Arts Content Standards	EXPLORE English and Reading College Readiness Standards
Standard 6:	
	Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives

TABLE 1B

NORTH DAKOTA Grade 9 English Language Arts Content Standards	EXPLORE College Readiness Standards
Standard 1: Students engage in the research process.	
PLANNING RESEARCH	
9.1.1. Choose a broad topic, state the problem or question	
9.1.2. Formulate a preliminary thesis statement	
ACCESSING INFORMATION	
No benchmark expectations at this level	
EVALUATING RESEARCH INFORMATION	
9.1.3. Cross-reference information	
9.1.4. Evaluate relevancy of information	
ORGANIZING RESEARCH INFORMATION	
9.1.5. Organize information from a variety of sources e.g., chronological	
9.1.6. Summarize information	
9.1.7. Identify and avoid plagiarism	
9.1.8. Use primary and secondary sources	
9.1.9. Use graphic organizer	
PRESENTATION	
9.1.10. Write research papers and presentations using a thesis and organized information	
EVALUATE THE RESEARCH PROCESS	
No benchmark expectations at this level	

TABLE 1B

NORTH DAKOTA Grade 9 English Language Arts Content Standards	EXPLORE Reading College Readiness Standards
Standard 2: Students engage in the reading process.	
LITERARY GENRES	
9.2.1. Identify characteristics of a variety of fiction genres i.e., novels, short stories, plays, and poetry	
9.2.2. Identify the organizational features of fiction, drama, and poetry i.e., stanza, act, scene, chapter, verse, and article	
INFORMATIONAL GENRES	
9.2.3. Differentiate between a variety of nonfiction genres i.e., newspapers, magazines, electronic texts, biographies, reference materials, essays, and speeches	
READING STRATEGIES FOR INTERPRETING MEANING OF TEXTS	
9.2.4. Identify persuasive writing	**Main Ideas and Author's Approach:** Recognize a clear intent of an author or narrator in uncomplicated literary narratives Identify a clear main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages
9.2.5. Locate redundancies in written texts to clarify meaning	
9.2.6. Demonstrate oral reading fluency	
9.2.7. Access prior knowledge to interpret meaning	
PURPOSES FOR READING	
9.2.8. Read for a variety of purposes and intents e.g., to become life-long readers, to model forms of writing	
LITERARY ELEMENTS AND TECHNIQUES	
9.2.9. Identify character, setting, plot, stanza, act, scene, chapter, verse, article, fiction, nonfiction, point of view	**Main Ideas and Author's Approach:** Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages **Supporting Details:** Locate basic facts (e.g., names, dates, events) clearly stated in a passage Locate simple details at the sentence and paragraph level in uncomplicated passages Recognize a clear function of a part of an uncomplicated passage Locate important details in uncomplicated passages Make simple inferences about how details are used in passages

TABLE 1B

NORTH DAKOTA Grade 9 English Language Arts Content Standards	EXPLORE Reading College Readiness Standards
Standard 2:	
	Locate and interpret minor or subtly stated details in uncomplicated passages **Sequential, Comparative, and Cause-Effect Relationships:** Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages Order simple sequences of events in uncomplicated literary narratives Order sequences of events in uncomplicated passages **Generalizations and Conclusions:** Draw simple generalizations and conclusions about the main characters in uncomplicated literary narratives Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives
9.2.10. Analyze an author's use of literary techniques and devices i.e., mood, foreshadowing, flashbacks, dialogue, and poetic license	**Main Ideas and Author's Approach:** Recognize a clear intent of an author or narrator in uncomplicated literary narratives Identify a clear main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages **Supporting Details:** Locate basic facts (e.g., names, dates, events) clearly stated in a passage Locate simple details at the sentence and paragraph level in uncomplicated passages Recognize a clear function of a part of an uncomplicated passage Locate important details in uncomplicated passages Make simple inferences about how details are used in passages Locate and interpret minor or subtly stated details in uncomplicated passages **Sequential, Comparative, and Cause-Effect Relationships:** Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages Recognize clear cause-effect relationships described within a single sentence in a passage

TABLE 1B

NORTH DAKOTA Grade 9 English Language Arts Content Standards	EXPLORE Reading College Readiness Standards
Standard 2:	
	Identify relationships between main characters in uncomplicated literary narratives Recognize clear cause-effect relationships within a single paragraph in uncomplicated literary narratives Order simple sequences of events in uncomplicated literary narratives Identify clear relationships between people, ideas, and so on in uncomplicated passages Identify clear cause-effect relationships in uncomplicated passages Order sequences of events in uncomplicated passages Understand relationships between people, ideas, and so on in uncomplicated passages Understand implied or subtly stated cause-effect relationships in uncomplicated passages **Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages **Generalizations and Conclusions:** Draw simple generalizations and conclusions about the main characters in uncomplicated literary narratives Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives
9.2.11. Identify universal themes	
9.2.12. Explain ways in which the setting affects the development of a story	**Supporting Details:** Recognize a clear function of a part of an uncomplicated passage Make simple inferences about how details are used in passages
9.2.13. Analyze author's use of literary techniques and devices i.e., foreshadowing and flashbacks	**Main Ideas and Author's Approach:** Recognize a clear intent of an author or narrator in uncomplicated literary narratives Identify a clear main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives

TABLE 1B

NORTH DAKOTA Grade 9 English Language Arts Content Standards	EXPLORE Reading College Readiness Standards
Standard 2:	
	Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages
	Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages
	Supporting Details:
	Locate basic facts (e.g., names, dates, events) clearly stated in a passage
	Locate simple details at the sentence and paragraph level in uncomplicated passages
	Recognize a clear function of a part of an uncomplicated passage
	Locate important details in uncomplicated passages
	Make simple inferences about how details are used in passages
	Locate and interpret minor or subtly stated details in uncomplicated passages
	Sequential, Comparative, and Cause-Effect Relationships:
	Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages
	Recognize clear cause-effect relationships described within a single sentence in a passage
	Identify relationships between main characters in uncomplicated literary narratives
	Recognize clear cause-effect relationships within a single paragraph in uncomplicated literary narratives
	Order simple sequences of events in uncomplicated literary narratives
	Identify clear relationships between people, ideas, and so on in uncomplicated passages
	Identify clear cause-effect relationships in uncomplicated passages
	Order sequences of events in uncomplicated passages
	Understand relationships between people, ideas, and so on in uncomplicated passages
	Understand implied or subtly stated cause-effect relationships in uncomplicated passages
	Meanings of Words:
	Understand the implication of a familiar word or phrase and of simple descriptive language
	Use context to understand basic figurative language
	Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages
	Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages

TABLE 1B

NORTH DAKOTA Grade 9 English Language Arts Content Standards	EXPLORE Reading College Readiness Standards
Standard 2:	
	Generalizations and Conclusions: Draw simple generalizations and conclusions about the main characters in uncomplicated literary narratives Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives
VOCABULARY	
9.2.14. Use decoding/encoding, connotation, and denotation	**Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages
9.2.15. Build vocabulary by reading a variety of gradelevel texts and applying new vocabulary	

TABLE 1B

NORTH DAKOTA Grade 9 English Language Arts Content Standards	EXPLORE English College Readiness Standards
Standard 3: Students engage in the writing process.	
INFORMATIVE WRITING	
9.3.1. Write expository texts e.g., essays, directions, and letters	
LITERARY/NARRATIVE WRITING	
9.3.2. Write descriptive and narrative compositions e.g., journals, personal letters, biographies, short stories, autobiographical sketches, oneact plays, and poetry	
PERSUASIVE WRITING	
9.3.3. Develop a composition detailing an opinion	
PREWRITING	
9.3.4. Develop a focus for composition e.g., a theme or unifying idea	
9.3.5. Organize the ideas and details of a composition according to purpose	
DRAFTING	
9.3.6. Elaborate ideas through word choice and description using grade-level vocabulary	**Topic Development in Terms of Purpose and Focus:** Identify the basic purpose or role of a specified phrase or sentence Identify the central idea or main topic of a straightforward piece of writing Identify the focus of a simple essay, applying that knowledge to add a sentence that sharpens that focus or to determine if an essay has met a specified goal Add a sentence to accomplish a fairly straightforward purpose such as illustrating a given statement **Word Choice in Terms of Style, Tone, Clarity, and Economy:** Use the word or phrase most appropriate in terms of the content of the sentence and tone of the essay
9.3.7. Organize and write compositions for self and family	**Organization, Unity, and Coherence:** Use conjunctive adverbs or phrases to show time relationships in simple narrative essays (e.g., *then*, *this time*) Select the most logical place to add a sentence in a paragraph Use conjunctive adverbs or phrases to express straightforward logical relationships (e.g., *first*, *afterward*, *in response*) Decide the most logical place to add a sentence in an essay Add a sentence that introduces a simple paragraph Determine the need for conjunctive adverbs or phrases to create subtle logical connections between sentences (e.g., *therefore*, *however*, *in addition*) Rearrange the sentences in a fairly uncomplicated paragraph for the sake of logic

TABLE 1B

NORTH DAKOTA Grade 9 English Language Arts Content Standards	EXPLORE English College Readiness Standards
Standard 3:	
	Add a sentence to introduce or conclude the essay or to provide a transition between paragraphs when the essay is fairly straightforward
9.3.8. Use supporting details	**Topic Development in Terms of Purpose and Focus:** Identify the basic purpose or role of a specified phrase or sentence Delete a clause or sentence because it is obviously irrelevant to the essay Identify the central idea or main topic of a straightforward piece of writing Determine relevancy when presented with a variety of sentence-level details Identify the focus of a simple essay, applying that knowledge to add a sentence that sharpens that focus or to determine if an essay has met a specified goal Delete material primarily because it disturbs the flow and development of the paragraph Add a sentence to accomplish a fairly straightforward purpose such as illustrating a given statement
LITERARY ELEMENTS AND TECHNIQUES	
9.3.9. Use techniques of characterization in compositions e.g., description, dialogue, interior monologue	
REVISING AND EDITING	
9.3.10. Edit and revise compositions for proper mechanics and grammar, syntax, diction, and order	**Organization, Unity, and Coherence:** Use conjunctive adverbs or phrases to show time relationships in simple narrative essays (e.g., *then*, *this time*) Select the most logical place to add a sentence in a paragraph Use conjunctive adverbs or phrases to express straightforward logical relationships (e.g., *first*, *afterward*, *in response*) Decide the most logical place to add a sentence in an essay Add a sentence that introduces a simple paragraph Determine the need for conjunctive adverbs or phrases to create subtle logical connections between sentences (e.g., *therefore*, *however*, *in addition*) Rearrange the sentences in a fairly uncomplicated paragraph for the sake of logic Add a sentence to introduce or conclude the essay or to provide a transition between paragraphs when the essay is fairly straightforward **Word Choice in Terms of Style, Tone, Clarity, and Economy:** Revise sentences to correct awkward and confusing arrangements of sentence elements Revise expressions that deviate from the style of an essay Use the word or phrase most consistent with the style and tone of a fairly straightforward essay

TABLE 1B

NORTH DAKOTA Grade 9 English Language Arts Content Standards	EXPLORE English College Readiness Standards
Standard 3:	
	Use the word or phrase most appropriate in terms of the content of the sentence and tone of the essay
	Sentence Structure and Formation:
	Use conjunctions or punctuation to join simple clauses
	Revise shifts in verb tense between simple clauses in a sentence or between simple adjoining sentences
	Determine the need for punctuation and conjunctions to avoid awkward-sounding sentence fragments and fused sentences
	Decide the appropriate verb tense and voice by considering the meaning of the entire sentence
	Recognize and correct marked disturbances of sentence flow and structure (e.g., participial phrase fragments, missing or incorrect relative pronouns, dangling or misplaced modifiers)
	Revise to avoid faulty placement of phrases and faulty coordination and subordination of clauses in sentences with subtle structural problems
	Maintain consistent verb tense and pronoun person on the basis of the preceding clause or sentence
	Conventions of Usage:
	Solve such basic grammatical problems as how to form the past and past participle of irregular but commonly used verbs and how to form comparative and superlative adjectives
	Solve such grammatical problems as whether to use an adverb or adjective form, how to ensure straightforward subject-verb and pronoun-antecedent agreement, and which preposition to use in simple contexts
	Recognize and use the appropriate word in frequently confused pairs such as *there* and *their*, *past* and *passed*, and *led* and *lead*
	Use idiomatically appropriate prepositions, especially in combination with verbs (e.g., *long for*, *appeal to*)
	Ensure that a verb agrees with its subject when there is some text between the two
	Ensure that a pronoun agrees with its antecedent when the two occur in separate clauses or sentences
	Identify the correct past and past participle forms of irregular and infrequently used verbs and form present-perfect verbs by using *have* rather than *of*
	Conventions of Punctuation:
	Delete commas that create basic sense problems (e.g., between verb and direct object)
	Provide appropriate punctuation in straightforward situations (e.g., items in a series)
	Delete commas that disturb the sentence flow (e.g., between modifier and modified element)
	Use commas to set off simple parenthetical phrases

TABLE 1B

NORTH DAKOTA Grade 9 English Language Arts Content Standards	EXPLORE English College Readiness Standards
Standard 3:	
	Delete unnecessary commas when an incorrect reading of the sentence suggests a pause that should be punctuated (e.g., between verb and direct object clause) Use punctuation to set off complex parenthetical phrases Recognize and delete unnecessary commas based on a careful reading of a complicated sentence (e.g., between the elements of a compound subject or compound verb joined by *and*) Use apostrophes to indicate simple possessive nouns Recognize inappropriate uses of colons and semicolons
9.3.11. Arrange paragraphs in a logical progression	
PUBLISHING/PRESENTATION	
9.3.12. Use technology e.g., publishing software and graphic programs, to present written work	

TABLE 1B

NORTH DAKOTA Grade 9 English Language Arts Content Standards	EXPLORE College Readiness Standards
Standard 4: Students engage in the speaking and listening process.	
PLANNING FOR AN AUDIENCE/PURPOSE	
9.4.1. Analyze the audience and adjust message and wording to suit purpose	
VERBAL AND NONVERBAL COMMUNICATION	
9.4.2. Use visual aids effectively in oral presentations	
9.4.3. Use notes and manuscripts to make oral presentations	
CONVERSATION, GROUP DISCUSSION, AND ORAL PRESENTATION	
9.4.4. Engage in a group discussion	
9.4.5. Use critical listening skills i.e., reflection	

TABLE 1B

NORTH DAKOTA Grade 9 English Language Arts Content Standards	EXPLORE College Readiness Standards
Standard 5: Students understand media.	
MEDIA GENRES	
9.5.1. Identify existing and developing media	
USING MEDIA FOR A PURPOSE	
9.5.2. Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes	
INTERPRETING MEDIA	
9.5.3. Compare and contrast a written work and a media version	

TABLE 1B

NORTH DAKOTA Grade 9 English Language Arts Content Standards	EXPLORE English and Reading College Readiness Standards
Standard 6: Students understand and use principles of language.	
LANGUAGE CONVENTIONS/MECHANICS	
9.6.1. Identify conventions of grammar related to sentence structure i.e., sentence reduction, parallel structure, elliptical clauses, conjunctions, clausal and phrasal patterns	**English** College Readiness Standards **Sentence Structure and Formation:** Use conjunctions or punctuation to join simple clauses Revise shifts in verb tense between simple clauses in a sentence or between simple adjoining sentences Determine the need for punctuation and conjunctions to avoid awkward-sounding sentence fragments and fused sentences Decide the appropriate verb tense and voice by considering the meaning of the entire sentence Recognize and correct marked disturbances of sentence flow and structure (e.g., participial phrase fragments, missing or incorrect relative pronouns, dangling or misplaced modifiers) Revise to avoid faulty placement of phrases and faulty coordination and subordination of clauses in sentences with subtle structural problems Maintain consistent verb tense and pronoun person on the basis of the preceding clause or sentence
9.6.2. Use conventions of grammar related to parts of speech i.e., verb tense and agreement	**English** College Readiness Standards **Sentence Structure and Formation:** Use conjunctions or punctuation to join simple clauses Revise shifts in verb tense between simple clauses in a sentence or between simple adjoining sentences Determine the need for punctuation and conjunctions to avoid awkward-sounding sentence fragments and fused sentences Decide the appropriate verb tense and voice by considering the meaning of the entire sentence Recognize and correct marked disturbances of sentence flow and structure (e.g., participial phrase fragments, missing or incorrect relative pronouns, dangling or misplaced modifiers) Revise to avoid faulty placement of phrases and faulty coordination and subordination of clauses in sentences with subtle structural problems Maintain consistent verb tense and pronoun person on the basis of the preceding clause or sentence **Conventions of Usage:** Solve such basic grammatical problems as how to form the past and past participle of irregular but commonly used verbs and how to form comparative and superlative adjectives Solve such grammatical problems as whether to use an adverb or adjective form, how to ensure straightforward subject-verb and pronoun-antecedent agreement, and which preposition to use in simple contexts

TABLE 1B

NORTH DAKOTA Grade 9 English Language Arts Content Standards	EXPLORE English and Reading College Readiness Standards
Standard 6:	
	Recognize and use the appropriate word in frequently confused pairs such as *there* and *their*, *past* and *passed*, and *led* and *lead* Use idiomatically appropriate prepositions, especially in combination with verbs (e.g., *long for*, *appeal to*) Ensure that a verb agrees with its subject when there is some text between the two Ensure that a pronoun agrees with its antecedent when the two occur in separate clauses or sentences Identify the correct past and past participle forms of irregular and infrequently used verbs and form present-perfect verbs by using *have* rather than *of*
9.6.3. Use conventions of punctuation	**English** College Readiness Standards **Conventions of Punctuation:** Delete commas that create basic sense problems (e.g., between verb and direct object) Provide appropriate punctuation in straightforward situations (e.g., items in a series) Delete commas that disturb the sentence flow (e.g., between modifier and modified element) Use commas to set off simple parenthetical phrases Delete unnecessary commas when an incorrect reading of the sentence suggests a pause that should be punctuated (e.g., between verb and direct object clause) Use punctuation to set off complex parenthetical phrases Recognize and delete unnecessary commas based on a careful reading of a complicated sentence (e.g., between the elements of a compound subject or compound verb joined by *and*) Use apostrophes to indicate simple possessive nouns Recognize inappropriate uses of colons and semicolons
LITERARY ELEMENTS AND TECHNIQUES	
9.6.4. Identify idiomatic language and figurative language i.e., allusion, analogy, hyperbole, irony, personification, oxymoron, paradox	**English** College Readiness Standards **Conventions of Usage:** Solve such grammatical problems as whether to use an adverb or adjective form, how to ensure straightforward subject-verb and pronoun-antecedent agreement, and which preposition to use in simple contexts Use idiomatically appropriate prepositions, especially in combination with verbs (e.g., *long for*, *appeal to*) **Reading** College Readiness Standards **Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages

TABLE 1B

NORTH DAKOTA Grade 9 English Language Arts Content Standards	EXPLORE English and Reading College Readiness Standards
Standard 6:	
	Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages
9.6.5. Identify the use of sound patterns in language i.e., alliteration, assonance, consonance	
9.6.6. Interpret symbolism	**Reading** College Readiness Standards **Supporting Details:** Recognize a clear function of a part of an uncomplicated passage Make simple inferences about how details are used in passages **Sequential, Comparative, and Cause-Effect Relationships:** Identify clear relationships between people, ideas, and so on in uncomplicated passages Understand relationships between people, ideas, and so on in uncomplicated passages **Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages
LANGUAGE CONTEXT	
9.6.7. Locate cultural differences in language i.e., colloquialisms, regional and ethnic dialects, indigenous vocabulary	
9.6.8. Identify gender perspectives in language i.e., biased language	

TABLE 1C

NORTH DAKOTA Grade 10 English Language Arts Content Standards	PLAN College Readiness Standards
Standard 1: Students engage in the research process.	
RESEARCH PLANNING	
10.1.1. Form questions to focus research	
ACCESSING INFORMATION	
10.1.2. Know ways to effectively search electronic databases e.g., defining key terms and using limiters to focus a search	
10.1.3. Gather reliable information to support a thesis	
EVALUATING RESEARCH INFORMATION	
10.1.4. Use relevant information	
ORGANIZING AND PRESENTING RESEARCH INFORMATION	
10.1.5. Organize information from a variety of sources into a unified whole	
10.1.6. Use a style sheet, such as MLA or APA, for citing primary and secondary sources	
10.1.7. Paraphrase information	
10.1.8. Use note cards	
10.1.9. Develop an outline	
PRESENTATION	
10.1.10. Write a research paper	
10.1.11. Present research information e.g., informative speech, computer-assisted presentation, video presentation	

TABLE 1C

NORTH DAKOTA Grade 10 English Language Arts Content Standards	PLAN Reading College Readiness Standards
Standard 2: Students engage in the reading process.	
LITERARY GENRES	
No benchmark expectations at this level	
INFORMATIONAL GENRES	
10.2.1. Summarize information from nonfiction genres	**Main Ideas and Author's Approach:** Summarize basic events and ideas in more challenging passages
VOCABULARY	
No benchmark expectations at this level	
READING STRATEGIES FOR INTERPRETING MEANING OF TEXTS	
10.2.2. Identify techniques used in persuasive writing i.e., deductive reasoning and use of fact and opinion	**Main Ideas and Author's Approach:** Recognize a clear intent of an author or narrator in uncomplicated literary narratives Identify a clear main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages **Supporting Details:** Recognize a clear function of a part of an uncomplicated passage Make simple inferences about how details are used in passages **Generalizations and Conclusions:** Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives
PURPOSES FOR READING	
10.2.3. Read for a variety of purposes and intents e.g., to become life-long readers, to model forms of writing	

TABLE 1C

NORTH DAKOTA Grade 10 English Language Arts Content Standards	PLAN Reading College Readiness Standards
Standard 2:	
LITERARY ELEMENTS AND TECHNIQUES	
10.2.4. Identify author's use of figurative language including allusion, imagery, and symbolism	**Supporting Details:** Recognize a clear function of a part of an uncomplicated passage Make simple inferences about how details are used in passages **Sequential, Comparative, and Cause-Effect Relationships:** Identify clear relationships between people, ideas, and so on in uncomplicated passages Understand relationships between people, ideas, and so on in uncomplicated passages **Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages
10.2.5. Analyze literary elements i.e., character, setting, plot, stanza, act, scene, chapter, verse, article, fiction, nonfiction, and point of view	**Main Ideas and Author's Approach:** Recognize a clear intent of an author or narrator in uncomplicated literary narratives Identify a clear main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages **Supporting Details:** Locate basic facts (e.g., names, dates, events) clearly stated in a passage Locate simple details at the sentence and paragraph level in uncomplicated passages Recognize a clear function of a part of an uncomplicated passage Locate important details in uncomplicated passages Make simple inferences about how details are used in passages Locate and interpret minor or subtly stated details in uncomplicated passages

TABLE 1C

NORTH DAKOTA Grade 10 English Language Arts Content Standards	PLAN Reading College Readiness Standards
Standard 2:	
	Sequential, Comparative, and Cause-Effect Relationships: Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages Recognize clear cause-effect relationships described within a single sentence in a passage Identify relationships between main characters in uncomplicated literary narratives Recognize clear cause-effect relationships within a single paragraph in uncomplicated literary narratives Order simple sequences of events in uncomplicated literary narratives Identify clear relationships between people, ideas, and so on in uncomplicated passages Identify clear cause-effect relationships in uncomplicated passages Order sequences of events in uncomplicated passages Understand relationships between people, ideas, and so on in uncomplicated passages Understand implied or subtly stated cause-effect relationships in uncomplicated passages **Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages **Generalizations and Conclusions:** Draw simple generalizations and conclusions about the main characters in uncomplicated literary narratives Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives

TABLE 1C

NORTH DAKOTA Grade 10 English Language Arts Content Standards	PLAN Reading College Readiness Standards
Standard 2:	
10.2.6. Analyze author's use of mood	**Main Ideas and Author's Approach:** Recognize a clear intent of an author or narrator in uncomplicated literary narratives Identify a clear main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages **Generalizations and Conclusions:** Draw simple generalizations and conclusions about the main characters in uncomplicated literary narratives Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives
10.2.7. Apply universal themes to real life situations	

TABLE 1C

NORTH DAKOTA Grade 10 English Language Arts Content Standards	PLAN English College Readiness Standards
Standard 3: Students engage in the writing process.	
INFORMATIVE WRITING	
10.3.1. Write expository texts including research papers	
LITERARY/NARRATIVE WRITING	
No benchmark expectations at this level	
PERSUASIVE WRITING	
10.3.2. Defend a personal opinion using facts as support	
PREWRITING	
10.3.3. Use prewriting techniques to generate ideas	
10.3.4. Organize the ideas and details of a composition according to purpose	
DRAFTING	
10.3.5. Elaborate ideas through word choice and description using grade-level vocabulary	**Topic Development in Terms of Purpose and Focus:** Identify the basic purpose or role of a specified phrase or sentence Identify the central idea or main topic of a straightforward piece of writing Identify the focus of a simple essay, applying that knowledge to add a sentence that sharpens that focus or to determine if an essay has met a specified goal Add a sentence to accomplish a fairly straightforward purpose such as illustrating a given statement **Word Choice in Terms of Style, Tone, Clarity, and Economy:** Use the word or phrase most appropriate in terms of the content of the sentence and tone of the essay
10.3.6. Organize and write compositions for school and peers	**Organization, Unity, and Coherence:** Use conjunctive adverbs or phrases to show time relationships in simple narrative essays (e.g., *then*, *this time*) Select the most logical place to add a sentence in a paragraph Use conjunctive adverbs or phrases to express straightforward logical relationships (e.g., *first*, *afterward*, *in response*) Decide the most logical place to add a sentence in an essay Add a sentence that introduces a simple paragraph Determine the need for conjunctive adverbs or phrases to create subtle logical connections between sentences (e.g., *therefore*, *however*, *in addition*) Rearrange the sentences in a fairly uncomplicated paragraph for the sake of logic Add a sentence to introduce or conclude the essay or to provide a transition between paragraphs when the essay is fairly straightforward

TABLE 1C

NORTH DAKOTA Grade 10 English Language Arts Content Standards	PLAN English College Readiness Standards
Standard 3:	
10.3.7. Use a variety of supporting details	**Topic Development in Terms of Purpose and Focus:** Identify the basic purpose or role of a specified phrase or sentence Delete a clause or sentence because it is obviously irrelevant to the essay Identify the central idea or main topic of a straightforward piece of writing Determine relevancy when presented with a variety of sentence-level details Identify the focus of a simple essay, applying that knowledge to add a sentence that sharpens that focus or to determine if an essay has met a specified goal Delete material primarily because it disturbs the flow and development of the paragraph Add a sentence to accomplish a fairly straightforward purpose such as illustrating a given statement
LITERARY ELEMENTS AND TECHNIQUES	
10.3.8. Use language appropriate to the format of the composition	**Word Choice in Terms of Style, Tone, Clarity, and Economy:** Revise expressions that deviate from the style of an essay Use the word or phrase most consistent with the style and tone of a fairly straightforward essay Use the word or phrase most appropriate in terms of the content of the sentence and tone of the essay
10.3.9. Use precise language to describe people, places, and things	**Word Choice in Terms of Style, Tone, Clarity, and Economy:** Revise sentences to correct awkward and confusing arrangements of sentence elements Revise vague nouns and pronouns that create obvious logic problems Revise expressions that deviate from the style of an essay Use the word or phrase most consistent with the style and tone of a fairly straightforward essay Determine the clearest and most logical conjunction to link clauses Identify and correct ambiguous pronoun references Use the word or phrase most appropriate in terms of the content of the sentence and tone of the essay
10.3.10. Use a specific point of view in compositions	
REVISING AND EDITING	
10.3.11. Edit and revise compositions with attention to content	**Topic Development in Terms of Purpose and Focus:** Identify the basic purpose or role of a specified phrase or sentence Delete a clause or sentence because it is obviously irrelevant to the essay Identify the central idea or main topic of a straightforward piece of writing

TABLE 1C

NORTH DAKOTA Grade 10 English Language Arts Content Standards	PLAN English College Readiness Standards
Standard 3:	
	Determine relevancy when presented with a variety of sentence-level details
	Identify the focus of a simple essay, applying that knowledge to add a sentence that sharpens that focus or to determine if an essay has met a specified goal
	Delete material primarily because it disturbs the flow and development of the paragraph
	Add a sentence to accomplish a fairly straightforward purpose such as illustrating a given statement
	Apply an awareness of the focus and purpose of a fairly involved essay to determine the rhetorical effect and suitability of an existing phrase or sentence, or to determine the need to delete plausible but irrelevant material
	Add a sentence to accomplish a subtle rhetorical purpose such as to emphasize, to add supporting detail, or to express meaning through connotation
	Organization, Unity, and Coherence:
	Use conjunctive adverbs or phrases to show time relationships in simple narrative essays (e.g., *then*, *this time*)
	Select the most logical place to add a sentence in a paragraph
	Use conjunctive adverbs or phrases to express straightforward logical relationships (e.g., *first*, *afterward*, *in response*)
	Decide the most logical place to add a sentence in an essay
	Add a sentence that introduces a simple paragraph
	Determine the need for conjunctive adverbs or phrases to create subtle logical connections between sentences (e.g., *therefore*, *however*, *in addition*)
	Rearrange the sentences in a fairly uncomplicated paragraph for the sake of logic
	Add a sentence to introduce or conclude the essay or to provide a transition between paragraphs when the essay is fairly straightforward
	Word Choice in Terms of Style, Tone, Clarity, and Economy:
	Revise sentences to correct awkward and confusing arrangements of sentence elements
	Revise vague nouns and pronouns that create obvious logic problems
	Delete obviously synonymous and wordy material in a sentence
	Revise expressions that deviate from the style of an essay
	Delete redundant material when information is repeated in different parts of speech (e.g., “alarmingly startled”)
	Use the word or phrase most consistent with the style and tone of a fairly straightforward essay
	Determine the clearest and most logical conjunction to link clauses

TABLE 1C

NORTH DAKOTA Grade 10 English Language Arts Content Standards	PLAN English College Readiness Standards
Standard 3:	
	Revise a phrase that is redundant in terms of the meaning and logic of the entire sentence Identify and correct ambiguous pronoun references Use the word or phrase most appropriate in terms of the content of the sentence and tone of the essay
10.3.12. Edit and revise compositions for consistent point of view	
10.3.13. Use knowledge of sentence structure and sentence construction to edit and revise text	**Sentence Structure and Formation:** Use conjunctions or punctuation to join simple clauses Revise shifts in verb tense between simple clauses in a sentence or between simple adjoining sentences Determine the need for punctuation and conjunctions to avoid awkward-sounding sentence fragments and fused sentences Decide the appropriate verb tense and voice by considering the meaning of the entire sentence Recognize and correct marked disturbances of sentence flow and structure (e.g., participial phrase fragments, missing or incorrect relative pronouns, dangling or misplaced modifiers) Revise to avoid faulty placement of phrases and faulty coordination and subordination of clauses in sentences with subtle structural problems Maintain consistent verb tense and pronoun person on the basis of the preceding clause or sentence Use sentence-combining techniques, effectively avoiding problematic comma splices, run-on sentences, and sentence fragments, especially in sentences containing compound subjects or verbs Maintain a consistent and logical use of verb tense and pronoun person on the basis of information in the paragraph or essay as a whole

TABLE 1C

NORTH DAKOTA Grade 10 English Language Arts Content Standards	PLAN English College Readiness Standards
Standard 3:	
10.3.14. Use sentence reduction techniques to revise and edit compositions	**Word Choice in Terms of Style, Tone, Clarity, and Economy:** Revise sentences to correct awkward and confusing arrangements of sentence elements Determine the clearest and most logical conjunction to link clauses **Sentence Structure and Formation:** Use conjunctions or punctuation to join simple clauses Determine the need for punctuation and conjunctions to avoid awkward-sounding sentence fragments and fused sentences Recognize and correct marked disturbances of sentence flow and structure (e.g., participial phrase fragments, missing or incorrect relative pronouns, dangling or misplaced modifiers) Revise to avoid faulty placement of phrases and faulty coordination and subordination of clauses in sentences with subtle structural problems
PUBLISHING	
No benchmark expectations at this level	

TABLE 1C

NORTH DAKOTA Grade 10 English Language Arts Content Standards	PLAN College Readiness Standards
Standard 4: Students engage in the speaking and listening process.	
PLANNING FOR AN AUDIENCE/PURPOSE	
10.4.1. Analyze the audience and adjust message and wording to suit the purpose	
VERBAL AND NONVERBAL COMMUNICATION	
10.4.2. Use appropriate body language in oral presentations	
CONVERSATION, GROUP DISCUSSION, AND ORAL PRESENTATION	
10.4.3. Formulate questions in response to a verbal message	

TABLE 1C

NORTH DAKOTA Grade 10 English Language Arts Content Standards	PLAN College Readiness Standards
Standard 5: Students understand media.	
MEDIA GENRES	
10.5.1. Identify existing and developing media	
USING MEDIA FOR A PURPOSE	
10.5.2. Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes	
INTERPRETING MEDIA	
10.5.3. Evaluate the portrayal of ethnicity and lifestyles in media messages	
10.5.4. Analyze media messages	

TABLE 1C

NORTH DAKOTA Grade 10 English Language Arts Content Standards	PLAN English and Reading College Readiness Standards
Standard 6: Students understand and use principles of language.	
LANGUAGE CONVENTIONS/MECHANICS	
10.6.1. Use conventions of grammar related to sentence structure i.e., sentence reduction, parallel structure, elliptical clauses, conjunctions, clausal and phrasal patterns	**English** College Readiness Standards **Sentence Structure and Formation:** Use conjunctions or punctuation to join simple clauses Revise shifts in verb tense between simple clauses in a sentence or between simple adjoining sentences Determine the need for punctuation and conjunctions to avoid awkward-sounding sentence fragments and fused sentences Decide the appropriate verb tense and voice by considering the meaning of the entire sentence Recognize and correct marked disturbances of sentence flow and structure (e.g., participial phrase fragments, missing or incorrect relative pronouns, dangling or misplaced modifiers) Revise to avoid faulty placement of phrases and faulty coordination and subordination of clauses in sentences with subtle structural problems Maintain consistent verb tense and pronoun person on the basis of the preceding clause or sentence Use sentence-combining techniques, effectively avoiding problematic comma splices, run-on sentences, and sentence fragments, especially in sentences containing compound subjects or verbs Maintain a consistent and logical use of verb tense and pronoun person on the basis of information in the paragraph or essay as a whole
LITERARY ELEMENTS AND TECHNIQUES	
10.6.2. Analyze figurative language i.e., allusion, analogy, hyperbole, irony, personification, oxymoron, paradox	**Reading** College Readiness Standards **Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages
10.6.3. Interpret the use of sound patterns in language i.e., alliteration, assonance, consonance	
LANGUAGE CONTEXT	
10.6.4. Critique cultural differences in language e.g., colloquialisms, regional and ethnic dialects, indigenous vocabulary	
10.6.5. Critique gender perspectives in language i.e., biased language	

TABLE 1D

NORTH DAKOTA Grade 11 English Language Arts Content Standards	ACT College Readiness Standards
Standard 1: Students engage in the research process.	
RESEARCH PLANNING	
11.1.1. Research topics independently using appropriate sources	
ACCESSING INFORMATION	
11.1.2. Evaluate and incorporate information from primary sources e.g., interviews and surveys	
EVALUATING RESEARCH INFORMATION	
11.1.3. Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise	
11.1.4. Verify the quality, accuracy, and usefulness of information	
ORGANIZING RESEARCH INFORMATION	
11.1.5. Synthesize information in a logical sequence	
11.1.6. Use quotations effectively	
PRESENTATION	
No benchmark expectations at this level	
EVALUATING RESEARCH PROCESS	
11.1.7. Evaluate the research process and develop strategies for improving it e.g., correct use of research format, accuracy of research, organization of information and use of sources	

TABLE 1D

NORTH DAKOTA Grade 11 English Language Arts Content Standards	ACT Reading College Readiness Standards
Standard 2: Students engage in the reading process.	
LITERARY GENRES	
11.2.1. Identify characteristics of literary forms and genres i.e., parody	
11.2.2. Analyze religious writing, biographies, and political writings	**Main Ideas and Author's Approach:** Recognize a clear intent of an author or narrator in uncomplicated literary narratives Identify a clear main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages **Supporting Details:** Locate basic facts (e.g., names, dates, events) clearly stated in a passage Locate simple details at the sentence and paragraph level in uncomplicated passages Recognize a clear function of a part of an uncomplicated passage Locate important details in uncomplicated passages Make simple inferences about how details are used in passages Locate and interpret minor or subtly stated details in uncomplicated passages **Sequential, Comparative, and Cause-Effect Relationships:** Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages Recognize clear cause-effect relationships described within a single sentence in a passage Identify relationships between main characters in uncomplicated literary narratives Recognize clear cause-effect relationships within a single paragraph in uncomplicated literary narratives Order simple sequences of events in uncomplicated literary narratives Identify clear relationships between people, ideas, and so on in uncomplicated passages Identify clear cause-effect relationships in uncomplicated passages Order sequences of events in uncomplicated passages Understand relationships between people, ideas, and so on in uncomplicated passages

TABLE 1D

NORTH DAKOTA Grade 11 English Language Arts Content Standards	ACT Reading College Readiness Standards
Standard 2:	
	Understand implied or subtly stated cause-effect relationships in uncomplicated passages **Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages **Generalizations and Conclusions:** Draw simple generalizations and conclusions about the main characters in uncomplicated literary narratives Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives
INFORMATIONAL GENRES	
11.2.3. Analyze details, facts, and concepts from nonfiction genres	**Main Ideas and Author's Approach:** Recognize a clear intent of an author or narrator in uncomplicated literary narratives Identify a clear main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages **Supporting Details:** Locate basic facts (e.g., names, dates, events) clearly stated in a passage Locate simple details at the sentence and paragraph level in uncomplicated passages Recognize a clear function of a part of an uncomplicated passage Locate important details in uncomplicated passages Make simple inferences about how details are used in passages Locate and interpret minor or subtly stated details in uncomplicated passages

TABLE 1D

NORTH DAKOTA Grade 11 English Language Arts Content Standards	ACT Reading College Readiness Standards
Standard 2:	
	Sequential, Comparative, and Cause-Effect Relationships: Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages Recognize clear cause-effect relationships described within a single sentence in a passage Identify relationships between main characters in uncomplicated literary narratives Recognize clear cause-effect relationships within a single paragraph in uncomplicated literary narratives Order simple sequences of events in uncomplicated literary narratives Identify clear relationships between people, ideas, and so on in uncomplicated passages Identify clear cause-effect relationships in uncomplicated passages Order sequences of events in uncomplicated passages Understand relationships between people, ideas, and so on in uncomplicated passages Understand implied or subtly stated cause-effect relationships in uncomplicated passages **Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages **Generalizations and Conclusions:** Draw simple generalizations and conclusions about the main characters in uncomplicated literary narratives Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives

TABLE 1D

NORTH DAKOTA Grade 11 English Language Arts Content Standards	ACT Reading College Readiness Standards
Standard 2:	
READING STRATEGIES FOR INTERPRETING MEANING OF TEXTS	
11.2.4. Identify techniques used in persuasive writing including inductive reasoning and propaganda	**Main Ideas and Author's Approach:** Recognize a clear intent of an author or narrator in uncomplicated literary narratives Identify a clear main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages **Supporting Details:** Recognize a clear function of a part of an uncomplicated passage Make simple inferences about how details are used in passages **Generalizations and Conclusions:** Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives
11.2.5. Locate ambiguities in written text	**Supporting Details:** Recognize a clear function of a part of an uncomplicated passage Make simple inferences about how details are used in passages **Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages **Generalizations and Conclusions:** Draw simple generalizations and conclusions about the main characters in uncomplicated literary narratives Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages

TABLE 1D

NORTH DAKOTA Grade 11 English Language Arts Content Standards	ACT Reading College Readiness Standards
Standard 2:	
	Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives
11.2.6. Apply prior knowledge of content to interpret meaning of text	
PURPOSES FOR READING	
11.2.7. Read for a variety of purposes and intents e.g., to become life-long readers, to model forms of writing	
LITERARY ELEMENTS AND TECHNIQUES	
11.2.8. Analyze author's use of poetic license and dialogue	**Main Ideas and Author's Approach:** Recognize a clear intent of an author or narrator in uncomplicated literary narratives Identify a clear main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages **Supporting Details:** Locate basic facts (e.g., names, dates, events) clearly stated in a passage Locate simple details at the sentence and paragraph level in uncomplicated passages Recognize a clear function of a part of an uncomplicated passage Locate important details in uncomplicated passages Make simple inferences about how details are used in passages Locate and interpret minor or subtly stated details in uncomplicated passages **Sequential, Comparative, and Cause-Effect Relationships:** Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages Recognize clear cause-effect relationships described within a single sentence in a passage Identify relationships between main characters in uncomplicated literary narratives Recognize clear cause-effect relationships within a single paragraph in uncomplicated literary narratives Order simple sequences of events in uncomplicated literary narratives Identify clear relationships between people, ideas, and so on in uncomplicated passages Identify clear cause-effect relationships in uncomplicated passages

TABLE 1D

NORTH DAKOTA Grade 11 English Language Arts Content Standards	ACT Reading College Readiness Standards
Standard 2:	
	Order sequences of events in uncomplicated passages Understand relationships between people, ideas, and so on in uncomplicated passages Understand implied or subtly stated cause-effect relationships in uncomplicated passages **Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages **Generalizations and Conclusions:** Draw simple generalizations and conclusions about the main characters in uncomplicated literary narratives Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives
11.2.9. Evaluate literature based on social, cultural, and/or historical contexts	
VOCABULARY	
11.2.10. Use etymology to define words	

TABLE 1D

NORTH DAKOTA Grade 11 English Language Arts Content Standards	ACT English and Writing College Readiness Standards
Standard 3: Students engage in the writing process.	
INFORMATIVE WRITING	
No benchmark expectations at this level	
NARRATIVE WRITING	
No benchmark expectations at this level	
PERSUASIVE WRITING	
11.3.1. Gather information supporting multiple sides of an issue	**Writing** College Readiness Standards **Expressing Judgments:** Show some recognition of the complexity of the issue in the prompt by • acknowledging counterarguments to the writer's position • providing some response to counterarguments to the writer's position Show recognition of the complexity of the issue in the prompt by • partially evaluating implications and/or complications of the issue, and/or • posing and partially responding to counterarguments to the writer's position Show understanding of the complexity of the issue in the prompt by • examining different perspectives, and/or • evaluating implications or complications of the issue, and/or • posing and fully discussing counterarguments to the writer's position
PREWRITING	
11.3.2. Organize the ideas and details of a composition according to purpose	**Writing** College Readiness Standards **Developing a Position:** Show some movement between general and specific ideas and examples Show clear movement between general and specific ideas and examples Show effective movement between general and specific ideas and examples **Organizing Ideas:** Provide unity and coherence throughout the essay, sometimes with a logical progression of ideas Use relevant, though at times simple and obvious, transitional words and phrases to convey logical relationships between ideas Present a somewhat developed introduction and conclusion Provide unity and coherence throughout the essay, often with a logical progression of ideas Use relevant transitional words, phrases, and sentences to convey logical relationships between ideas

TABLE 1D

NORTH DAKOTA Grade 11 English Language Arts Content Standards	ACT English and Writing College Readiness Standards
Standard 3:	
	Present a well-developed introduction and conclusion
DRAFTING	
11.3.3. Elaborate ideas through word choice and description using grade-level vocabulary	**English** College Readiness Standards **Topic Development in Terms of Purpose and Focus:** Identify the basic purpose or role of a specified phrase or sentence Identify the central idea or main topic of a straightforward piece of writing Identify the focus of a simple essay, applying that knowledge to add a sentence that sharpens that focus or to determine if an essay has met a specified goal Add a sentence to accomplish a fairly straightforward purpose such as illustrating a given statement **Word Choice in Terms of Style, Tone, Clarity, and Economy:** Use the word or phrase most appropriate in terms of the content of the sentence and tone of the essay **Writing** College Readiness Standards **Using Language:** Show adequate use of language to communicate by • correctly employing many of the conventions of standard English grammar, usage, and mechanics, but with some distracting errors that may occasionally impede understanding • using appropriate vocabulary • using some varied kinds of sentence structures to vary pace Show competent use of language to communicate ideas by • correctly employing most conventions of standard English grammar, usage, and mechanics, with a few distracting errors but none that impede understanding • using some precise and varied vocabulary • using several kinds of sentence structures to vary pace and to support meaning Show effective use of language to clearly communicate ideas by • correctly employing most conventions of standard English grammar, usage, and mechanics, with just a few, if any, errors • using precise and varied vocabulary • using a variety of kinds of sentence structures to vary pace and to support meaning
11.3.4. Organize and write compositions for town, city, and state	**English** College Readiness Standards **Organization, Unity, and Coherence:** Use conjunctive adverbs or phrases to show time relationships in simple narrative essays (e.g., *then*, *this time*)

TABLE 1D

NORTH DAKOTA Grade 11 English Language Arts Content Standards	ACT English and Writing College Readiness Standards
Standard 3:	
	Select the most logical place to add a sentence in a paragraph Use conjunctive adverbs or phrases to express straightforward logical relationships (e.g., *first*, *afterward*, *in response*) Decide the most logical place to add a sentence in an essay Add a sentence that introduces a simple paragraph Determine the need for conjunctive adverbs or phrases to create subtle logical connections between sentences (e.g., *therefore*, *however*, *in addition*) Rearrange the sentences in a fairly uncomplicated paragraph for the sake of logic Add a sentence to introduce or conclude the essay or to provide a transition between paragraphs when the essay is fairly straightforward
11.3.5. Use a variety of supporting details	**English** College Readiness Standards **Topic Development in Terms of Purpose and Focus:** Identify the basic purpose or role of a specified phrase or sentence Delete a clause or sentence because it is obviously irrelevant to the essay Identify the central idea or main topic of a straightforward piece of writing Determine relevancy when presented with a variety of sentence-level details Identify the focus of a simple essay, applying that knowledge to add a sentence that sharpens that focus or to determine if an essay has met a specified goal Delete material primarily because it disturbs the flow and development of the paragraph Add a sentence to accomplish a fairly straightforward purpose such as illustrating a given statement **Writing** College Readiness Standards **Developing a Position:** Develop ideas by using some specific reasons, details, and examples Develop most ideas fully, using some specific and relevant reasons, details, and examples Develop several ideas fully, using specific and relevant reasons, details, and examples
LITERARY ELEMENTS AND TECHNIQUES	
11.3.6. Use figurative language in writing	
REVISING AND EDITING	
11.3.7. Edit and revise compositions for standard writing conventions and transitional devices	**English** College Readiness Standards **Organization, Unity, and Coherence:** Use conjunctive adverbs or phrases to show time relationships in simple narrative essays (e.g., *then*, *this time*)

TABLE 1D

NORTH DAKOTA Grade 11 English Language Arts Content Standards	ACT English and Writing College Readiness Standards
Standard 3:	
	Use conjunctive adverbs or phrases to express straightforward logical relationships (e.g., *first*, *afterward*, *in response*) Add a sentence that introduces a simple paragraph Determine the need for conjunctive adverbs or phrases to create subtle logical connections between sentences (e.g., *therefore*, *however*, *in addition*) Add a sentence to introduce or conclude the essay or to provide a transition between paragraphs when the essay is fairly straightforward **Writing** College Readiness Standards **Organizing Ideas:** Use some simple and obvious, but appropriate, transitional words and phrases Use relevant, though at times simple and obvious, transitional words and phrases to convey logical relationships between ideas Use relevant transitional words, phrases, and sentences to convey logical relationships between ideas **Using Language:** Show adequate use of language to communicate by • correctly employing many of the conventions of standard English grammar, usage, and mechanics, but with some distracting errors that may occasionally impede understanding • using appropriate vocabulary • using some varied kinds of sentence structures to vary pace Show competent use of language to communicate ideas by • correctly employing most conventions of standard English grammar, usage, and mechanics, with a few distracting errors but none that impede understanding • using some precise and varied vocabulary • using several kinds of sentence structures to vary pace and to support meaning Show effective use of language to clearly communicate ideas by • correctly employing most conventions of standard English grammar, usage, and mechanics, with just a few, if any, errors • using precise and varied vocabulary • using a variety of kinds of sentence structures to vary pace and to support meaning
PUBLISHING	
11.3.8. Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning	

TABLE 1D

NORTH DAKOTA Grade 11 English Language Arts Content Standards	ACT College Readiness Standards
Standard 4: Students engage in the speaking and listening process.	
PLANNING FOR AN AUDIENCE/PURPOSE	
11.4.1. Analyze the audience and adjust message and wording to suit the purpose	
VERBAL AND NONVERBAL COMMUNICATION	
No benchmark expectations at this level	
CONVERSATION, GROUP DISCUSSION, AND ORAL PRESENTATION	
11.4.2. Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions	

TABLE 1D

NORTH DAKOTA Grade 11 English Language Arts Content Standards	ACT College Readiness Standards
Standard 5: Students understand media.	
MEDIA GENRES	
11.5.1. Identify existing and developing media	
USING MEDIA FOR A PURPOSE	
11.5.2. Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes	
INTERPRETING MEDIA	
11.5.3. Evaluate how coverage of the same events differs depending on the media type i.e., radio, television, and newspaper report of the same product or situation	
11.5.4. Evaluate the accuracy of details in media messages	
11.5.5. Evaluate the impact of media messages on daily life and politics	

TABLE 1D

NORTH DAKOTA Grade 11 English Language Arts Content Standards	ACT English, Reading, and Writing College Readiness Standards
Standard 6: Students understand and use principles of language.	
LANGUAGE CONVENTIONS/MECHANICS	
11.6.1. Use conventions of grammar, usage, and punctuation to edit and revise	**English** College Readiness Standards **Sentence Structure and Formation:** Use conjunctions or punctuation to join simple clauses Revise shifts in verb tense between simple clauses in a sentence or between simple adjoining sentences Determine the need for punctuation and conjunctions to avoid awkward-sounding sentence fragments and fused sentences Decide the appropriate verb tense and voice by considering the meaning of the entire sentence Recognize and correct marked disturbances of sentence flow and structure (e.g., participial phrase fragments, missing or incorrect relative pronouns, dangling or misplaced modifiers) Revise to avoid faulty placement of phrases and faulty coordination and subordination of clauses in sentences with subtle structural problems Maintain consistent verb tense and pronoun person on the basis of the preceding clause or sentence Use sentence-combining techniques, effectively avoiding problematic comma splices, run-on sentences, and sentence fragments, especially in sentences containing compound subjects or verbs Maintain a consistent and logical use of verb tense and pronoun person on the basis of information in the paragraph or essay as a whole **Conventions of Usage:** Solve such basic grammatical problems as how to form the past and past participle of irregular but commonly used verbs and how to form comparative and superlative adjectives Solve such grammatical problems as whether to use an adverb or adjective form, how to ensure straightforward subject-verb and pronoun-antecedent agreement, and which preposition to use in simple contexts Recognize and use the appropriate word in frequently confused pairs such as *there* and *their*, *past* and *passed*, and *led* and *lead* Use idiomatically appropriate prepositions, especially in combination with verbs (e.g., *long for*, *appeal to*) Ensure that a verb agrees with its subject when there is some text between the two Ensure that a pronoun agrees with its antecedent when the two occur in separate clauses or sentences Identify the correct past and past participle forms of irregular and infrequently used verbs and form present-perfect verbs by using *have* rather than *of*

TABLE 1D

NORTH DAKOTA Grade 11 English Language Arts Content Standards	ACT English, Reading, and Writing College Readiness Standards
Standard 6:	
	Correctly use reflexive pronouns, the possessive pronouns *its* and *your*, and the relative pronouns *who* and *whom* Ensure that a verb agrees with its subject in unusual situations (e.g., when the subject-verb order is inverted or when the subject is an indefinite pronoun) **Conventions of Punctuation:** Delete commas that create basic sense problems (e.g., between verb and direct object) Provide appropriate punctuation in straightforward situations (e.g., items in a series) Delete commas that disturb the sentence flow (e.g., between modifier and modified element) Use commas to set off simple parenthetical phrases Delete unnecessary commas when an incorrect reading of the sentence suggests a pause that should be punctuated (e.g., between verb and direct object clause) Use punctuation to set off complex parenthetical phrases Recognize and delete unnecessary commas based on a careful reading of a complicated sentence (e.g., between the elements of a compound subject or compound verb joined by *and*) Use apostrophes to indicate simple possessive nouns Recognize inappropriate uses of colons and semicolons Use commas to set off a nonessential/nonrestrictive appositive or clause **Writing** College Readiness Standards **Using Language:** Show competent use of language to communicate ideas by • correctly employing most conventions of standard English grammar, usage, and mechanics, with a few distracting errors but none that impede understanding • using some precise and varied vocabulary • using several kinds of sentence structures to vary pace and to support meaning Show effective use of language to clearly communicate ideas by • correctly employing most conventions of standard English grammar, usage, and mechanics, with just a few, if any, errors • using precise and varied vocabulary • using a variety of kinds of sentence structures to vary pace and to support meaning
LITERARY ELEMENTS AND TECHNIQUES	
11.6.2. Apply the use of sound patterns in language i.e., alliteration, assonance, consonance	
11.6.3. Identify the use of language in different literary forms i.e., satire and parody	

TABLE 1D

NORTH DAKOTA Grade 11 English Language Arts Content Standards	ACT English, Reading, and Writing College Readiness Standards
Standard 6:	
LANGUAGE CONTEXT	
11.6.4. Identify emotionally charged language	**Reading** College Readiness Standards **Supporting Details:** Recognize a clear function of a part of an uncomplicated passage Make simple inferences about how details are used in passages **Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages **Generalizations and Conclusions:** Draw simple generalizations and conclusions about the main characters in uncomplicated literary narratives Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives

TABLE 1E

NORTH DAKOTA Grade 11 English Language Arts Content Standards	WorkKeys Reading for Information Skills
Standard 1: Students engage in the research process.	
RESEARCH PLANNING	
11.1.1. Research topics independently using appropriate sources	
ACCESSING INFORMATION	
11.1.2. Evaluate and incorporate information from primary sources e.g., interviews and surveys	
EVALUATING RESEARCH INFORMATION	
11.1.3. Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise	
11.1.4. Verify the quality, accuracy, and usefulness of information	
ORGANIZING RESEARCH INFORMATION	
11.1.5. Synthesize information in a logical sequence	
11.1.6. Use quotations effectively	
PRESENTATION	
No benchmark expectations at this level	
EVALUATING RESEARCH PROCESS	
11.1.7. Evaluate the research process and develop strategies for improving it e.g., correct use of research format, accuracy of research, organization of information and use of sources	

TABLE 1E

NORTH DAKOTA Grade 11 English Language Arts Content Standards	WorkKeys Reading for Information Skills
Standard 2: Students engage in the reading process.	
LITERARY GENRES	
11.2.1. Identify characteristics of literary forms and genres i.e., parody	
11.2.2. Analyze religious writing, biographies, and political writings	
INFORMATIONAL GENRES	
11.2.3. Analyze details, facts, and concepts from nonfiction genres	Identify main ideas and clearly stated details Choose the correct meaning of a word that is clearly defined in the reading Choose the correct meaning of common, everyday and workplace words Choose when to perform each step in a short series of steps Apply instructions to a situation that is the same as the one in the reading materials Identify important details that may not be clearly stated Use the reading material to figure out the meaning of words that are not defined Apply instructions with several steps to a situation that is the same as the situation in the reading materials Choose what to do when changing conditions call for a different action (follow directions that include "if-then" statements) Figure out the correct meaning of a word based on how the word is used Identify the correct meaning of an acronym that is defined in the document Identify the paraphrased definition of a technical term or jargon that is defined in the document Apply technical terms and jargon and relate them to stated situations Apply straightforward instructions to a new situation that is similar to the one described in the material Apply complex instructions that include condi¬tionals to situations described in the materials Identify implied details Use technical terms and jargon in new situations Figure out the less common meaning of a word based on the context Apply complicated instructions to new situations Figure out the principles behind policies, rules, and procedures Apply general principles from the materials to similar and new situations Explain the rationale behind a procedure, policy, or communication

TABLE 1E

NORTH DAKOTA Grade 11 English Language Arts Content Standards	WorkKeys Reading for Information Skills
Standard 2:	
	Figure out the definitions of difficult, uncommon words based on how they are used Figure out the meaning of jargon or technical terms based on how they are used Figure out the general principles behind the policies and apply them to situations that are quite different from any described in the materials
READING STRATEGIES FOR INTERPRETING MEANING OF TEXTS	
11.2.4. Identify techniques used in persuasive writing including inductive reasoning and propaganda	
11.2.5. Locate ambiguities in written text	
11.2.6. Apply prior knowledge of content to interpret meaning of text	
PURPOSES FOR READING	
11.2.7. Read for a variety of purposes and intents e.g., to become life-long readers, to model forms of writing	
LITERARY ELEMENTS AND TECHNIQUES	
11.2.8. Analyze author's use of poetic license and dialogue	
11.2.9. Evaluate literature based on social, cultural, and/or historical contexts	
VOCABULARY	
11.2.10. Use etymology to define words	Choose the correct meaning of common, everyday and workplace words Use the reading material to figure out the meaning of words that are not defined Figure out the correct meaning of a word based on how the word is used Figure out the less common meaning of a word based on the context Figure out the definitions of difficult, uncommon words based on how they are used Figure out the meaning of jargon or technical terms based on how they are used

TABLE 1E

NORTH DAKOTA Grade 11 English Language Arts Content Standards	WorkKeys Reading for Information Skills
Standard 3: Students engage in the writing process.	
INFORMATIVE WRITING	
No benchmark expectations at this level	
NARRATIVE WRITING	
No benchmark expectations at this level	
PERSUASIVE WRITING	
11.3.1. Gather information supporting multiple sides of an issue	
PREWRITING	
11.3.2. Organize the ideas and details of a composition according to purpose	
DRAFTING	
11.3.3. Elaborate ideas through word choice and description using grade-level vocabulary	
11.3.4. Organize and write compositions for town, city, and state	
11.3.5. Use a variety of supporting details	
LITERARY ELEMENTS AND TECHNIQUES	
11.3.6. Use figurative language in writing	
REVISING AND EDITING	
11.3.7. Edit and revise compositions for standard writing conventions and transitional devices	
PUBLISHING	
11.3.8. Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning	

TABLE 1E

NORTH DAKOTA Grade 11 English Language Arts Content Standards	WorkKeys Reading for Information Skills
Standard 4: Students engage in the speaking and listening process.	
PLANNING FOR AN AUDIENCE/PURPOSE	
11.4.1. Analyze the audience and adjust message and wording to suit the purpose	
VERBAL AND NONVERBAL COMMUNICATION	
No benchmark expectations at this level	
CONVERSATION, GROUP DISCUSSION, AND ORAL PRESENTATION	
11.4.2. Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions	

TABLE 1E

NORTH DAKOTA Grade 11 English Language Arts Content Standards	WorkKeys Reading for Information Skills
Standard 5: Students understand media.	
MEDIA GENRES	
11.5.1. Identify existing and developing media	
USING MEDIA FOR A PURPOSE	
11.5.2. Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes	
INTERPRETING MEDIA	
11.5.3. Evaluate how coverage of the same events differs depending on the media type i.e., radio, television, and newspaper report of the same product or situation	
11.5.4. Evaluate the accuracy of details in media messages	
11.5.5. Evaluate the impact of media messages on daily life and politics	

TABLE 1E

NORTH DAKOTA Grade 11 English Language Arts Content Standards	WorkKeys Reading for Information Skills
Standard 6: Students understand and use principles of language.	
LANGUAGE CONVENTIONS/MECHANICS	
11.6.1. Use conventions of grammar, usage, and punctuation to edit and revise	
LITERARY ELEMENTS AND TECHNIQUES	
11.6.2. Apply the use of sound patterns in language i.e., alliteration, assonance, consonance	
11.6.3. Identify the use of language in different literary forms i.e., satire and parody	
LANGUAGE CONTEXT	
11.6.4. Identify emotionally charged language	

TABLE 1F

NORTH DAKOTA Grade 12 English Language Arts Content Standards	ACT College Readiness Standards
Standard 1: Students engage in the research process.	
RESEARCH PLANNING	
12.1.1. Plan a research strategy	
12.1.2. Determine purpose e.g., inform, persuade	
12.1.3. Develop a research question	
ACCESSING INFORMATION	
No benchmark expectations at this level	
ORGANIZING RESEARCH INFORMATION	
12.1.4. Defend research paper or project	
PRESENTATION	
No benchmark expectations at this level	
EVALUATING RESEARCH PROCESS	
12.1.5. Evaluate the research process and apply strategies to a variety of writing purposes e.g., correct use of research format, accuracy of research, organization of information and use of sources	

TABLE 1F

NORTH DAKOTA Grade 12 English Language Arts Content Standards	ACT Reading College Readiness Standards
Standard 2: Students engage in the reading process.	
LITERARY GENRES	
12.2.1. Identify satire and allegory	
INFORMATIONAL GENRES	
12.2.2. Critique details, facts, and concepts from nonfiction genres	**Main Ideas and Author's Approach:** Recognize a clear intent of an author or narrator in uncomplicated literary narratives Identify a clear main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages **Supporting Details:** Locate basic facts (e.g., names, dates, events) clearly stated in a passage Locate simple details at the sentence and paragraph level in uncomplicated passages Recognize a clear function of a part of an uncomplicated passage Locate important details in uncomplicated passages Make simple inferences about how details are used in passages Locate and interpret minor or subtly stated details in uncomplicated passages **Sequential, Comparative, and Cause-Effect Relationships:** Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages Recognize clear cause-effect relationships described within a single sentence in a passage Identify relationships between main characters in uncomplicated literary narratives Recognize clear cause-effect relationships within a single paragraph in uncomplicated literary narratives Order simple sequences of events in uncomplicated literary narratives Identify clear relationships between people, ideas, and so on in uncomplicated passages Identify clear cause-effect relationships in uncomplicated passages Order sequences of events in uncomplicated passages Understand relationships between people, ideas, and so on in uncomplicated passages

TABLE 1F

NORTH DAKOTA Grade 12 English Language Arts Content Standards	ACT Reading College Readiness Standards
Standard 2:	
	Understand implied or subtly stated cause-effect relationships in uncomplicated passages **Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages **Generalizations and Conclusions:** Draw simple generalizations and conclusions about the main characters in uncomplicated literary narratives Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives
READING STRATEGIES FOR INTERPRETING MEANING OF TEXTS	
12.2.3. Identify techniques used in persuasive writing such as fallacies of logic, faulty reasoning, and manipulative language	**Main Ideas and Author's Approach:** Recognize a clear intent of an author or narrator in uncomplicated literary narratives Identify a clear main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages **Supporting Details:** Recognize a clear function of a part of an uncomplicated passage Make simple inferences about how details are used in passages **Generalizations and Conclusions:** Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives

TABLE 1F

NORTH DAKOTA Grade 12 English Language Arts Content Standards	ACT Reading College Readiness Standards
Standard 2:	
PURPOSES FOR READING	
12.2.4. Read for a variety of purposes and intents e.g., to become life-long readers, to model forms of writing	
LITERARY ELEMENTS AND TECHNIQUES	
12.2.5. Interpret author's use of figurative language including allusion, imagery, and symbolism	**Supporting Details:** Recognize a clear function of a part of an uncomplicated passage Make simple inferences about how details are used in passages **Sequential, Comparative, and Cause-Effect Relationships:** Identify clear relationships between people, ideas, and so on in uncomplicated passages Understand relationships between people, ideas, and so on in uncomplicated passages **Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages
12.2.6. Interpret author's use of syntax and word choice/ diction	**Supporting Details:** Recognize a clear function of a part of an uncomplicated passage Make simple inferences about how details are used in passages
12.2.7. Critique literary merit of a work of literature	
VOCABULARY	
12.2.8. Use technical language/jargon to decipher meaning	**Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages Determine the appropriate meaning of words, phrases, or statements from figurative or somewhat technical contexts

TABLE 1F

NORTH DAKOTA Grade 12 English Language Arts Content Standards	ACT English and Writing College Readiness Standards
Standard 3: Students engage in the writing process.	
INFORMATIVE WRITING	
12.3.1. Write business or other formal documents, including resumes, scholarship letters, and letters of inquiry or complaint	
NARRATIVE WRITING	
No benchmark expectations at this level	
PERSUASIVE WRITING	
12.3.2. Write persuasive compositions, including structuring arguments logically, using rhetorical devices, defending positions with evidence, and addressing readers' concerns and biases e.g., editorials, critical reviews	**Writing** College Readiness Standards **Expressing Judgments:** Show understanding of the persuasive purpose of the task by taking a position on the issue in the prompt Show some recognition of the complexity of the issue in the prompt by • acknowledging counterarguments to the writer's position • providing some response to counterarguments to the writer's position Show clear understanding of the persuasive purpose of the task by taking a position on the specific issue in the prompt and offering a broad context for discussion Show recognition of the complexity of the issue in the prompt by • partially evaluating implications and/or complications of the issue, and/or • posing and partially responding to counterarguments to the writer's position Show clear understanding of the persuasive purpose of the task by taking a position on the specific issue in the prompt and offering a critical context for discussion Show understanding of the complexity of the issue in the prompt by • examining different perspectives, and/or • evaluating implications or complications of the issue, and/or • posing and fully discussing counterarguments to the writer's position
PREWRITING	
12.3.3. Organize the ideas and details of a composition according to purpose	**Writing** College Readiness Standards **Developing a Position:** Show some movement between general and specific ideas and examples Show clear movement between general and specific ideas and examples Show effective movement between general and specific ideas and examples **Organizing Ideas:** Provide unity and coherence throughout the essay, sometimes with a logical progression of ideas

TABLE 1F

NORTH DAKOTA Grade 12 English Language Arts Content Standards	ACT English and Writing College Readiness Standards
Standard 3:	
	Use relevant, though at times simple and obvious, transitional words and phrases to convey logical relationships between ideas Present a somewhat developed introduction and conclusion Provide unity and coherence throughout the essay, often with a logical progression of ideas Use relevant transitional words, phrases, and sentences to convey logical relationships between ideas Present a well-developed introduction and conclusion
12.3.4. Use variety of sources for supporting details	
DRAFTING	
12.3.5. Elaborate ideas through word choice and description using grade-level vocabulary	**English** College Readiness Standards **Topic Development in Terms of Purpose and Focus:** Identify the basic purpose or role of a specified phrase or sentence Identify the central idea or main topic of a straightforward piece of writing Identify the focus of a simple essay, applying that knowledge to add a sentence that sharpens that focus or to determine if an essay has met a specified goal Add a sentence to accomplish a fairly straightforward purpose such as illustrating a given statement **Word Choice in Terms of Style, Tone, Clarity, and Economy:** Use the word or phrase most appropriate in terms of the content of the sentence and tone of the essay **Writing** College Readiness Standards **Using Language:** Show adequate use of language to communicate by • correctly employing many of the conventions of standard English grammar, usage, and mechanics, but with some distracting errors that may occasionally impede understanding • using appropriate vocabulary • using some varied kinds of sentence structures to vary pace Show competent use of language to communicate ideas by • correctly employing most conventions of standard English grammar, usage, and mechanics, with a few distracting errors but none that impede understanding • using some precise and varied vocabulary • using several kinds of sentence structures to vary pace and to support meaning Show effective use of language to clearly communicate ideas by • correctly employing most conventions of standard English grammar, usage, and mechanics, with just a few, if any, errors

TABLE 1F

NORTH DAKOTA Grade 12 English Language Arts Content Standards	ACT English and Writing College Readiness Standards
Standard 3:	
	• using precise and varied vocabulary • using a variety of kinds of sentence structures to vary pace and to support meaning
12.3.6. Organize and write compositions for nation and world	**English** College Readiness Standards **Organization, Unity, and Coherence:** Use conjunctive adverbs or phrases to show time relationships in simple narrative essays (e.g., *then*, *this time*) Select the most logical place to add a sentence in a paragraph Use conjunctive adverbs or phrases to express straightforward logical relationships (e.g., *first*, *afterward*, *in response*) Decide the most logical place to add a sentence in an essay Add a sentence that introduces a simple paragraph Determine the need for conjunctive adverbs or phrases to create subtle logical connections between sentences (e.g., *therefore*, *however*, *in addition*) Rearrange the sentences in a fairly uncomplicated paragraph for the sake of logic Add a sentence to introduce or conclude the essay or to provide a transition between paragraphs when the essay is fairly straightforward
LITERARY ELEMENTS AND TECHNIQUES	
12.3.7. Use techniques to convey an individual voice and style e.g., tone, syntax, diction, figurative language	
REVISING AND EDITING	
12.3.8. Edit and revise compositions for standard writing conventions and appropriate tone	**English** College Readiness Standards **Word Choice in Terms of Style, Tone, Clarity, and Economy:** Revise expressions that deviate from the style of an essay Use the word or phrase most consistent with the style and tone of a fairly straightforward essay Use the word or phrase most appropriate in terms of the content of the sentence and tone of the essay **Sentence Structure and Formation:** Use conjunctions or punctuation to join simple clauses Revise shifts in verb tense between simple clauses in a sentence or between simple adjoining sentences Determine the need for punctuation and conjunctions to avoid awkward-sounding sentence fragments and fused sentences Decide the appropriate verb tense and voice by considering the meaning of the entire sentence Recognize and correct marked disturbances of sentence flow and structure (e.g., participial phrase fragments, missing or incorrect relative pronouns, dangling or misplaced modifiers)

TABLE 1F

NORTH DAKOTA Grade 12 English Language Arts Content Standards	ACT English and Writing College Readiness Standards
Standard 3:	
	Revise to avoid faulty placement of phrases and faulty coordination and subordination of clauses in sentences with subtle structural problems
	Maintain consistent verb tense and pronoun person on the basis of the preceding clause or sentence
	Use sentence-combining techniques, effectively avoiding problematic comma splices, run-on sentences, and sentence fragments, especially in sentences containing compound subjects or verbs
	Maintain a consistent and logical use of verb tense and pronoun person on the basis of information in the paragraph or essay as a whole
	Conventions of Usage:
	Solve such basic grammatical problems as how to form the past and past participle of irregular but commonly used verbs and how to form comparative and superlative adjectives
	Solve such grammatical problems as whether to use an adverb or adjective form, how to ensure straightforward subject-verb and pronoun-antecedent agreement, and which preposition to use in simple contexts
	Recognize and use the appropriate word in frequently confused pairs such as *there* and *their*, *past* and *passed*, and *led* and *lead*
	Use idiomatically appropriate prepositions, especially in combination with verbs (e.g., *long for*, *appeal to*)
	Ensure that a verb agrees with its subject when there is some text between the two
	Ensure that a pronoun agrees with its antecedent when the two occur in separate clauses or sentences
	Identify the correct past and past participle forms of irregular and infrequently used verbs and form present-perfect verbs by using *have* rather than *of*
	Correctly use reflexive pronouns, the possessive pronouns *its* and *your*, and the relative pronouns *who* and *whom*
	Ensure that a verb agrees with its subject in unusual situations (e.g., when the subject-verb order is inverted or when the subject is an indefinite pronoun)
	Conventions of Punctuation:
	Delete commas that create basic sense problems (e.g., between verb and direct object)
	Provide appropriate punctuation in straightforward situations (e.g., items in a series)
	Delete commas that disturb the sentence flow (e.g., between modifier and modified element)
	Use commas to set off simple parenthetical phrases
	Delete unnecessary commas when an incorrect reading of the sentence suggests a pause that should be punctuated (e.g., between verb and direct object clause)

TABLE 1F

NORTH DAKOTA Grade 12 English Language Arts Content Standards	ACT English and Writing College Readiness Standards
Standard 3:	
	Use punctuation to set off complex parenthetical phrases Recognize and delete unnecessary commas based on a careful reading of a complicated sentence (e.g., between the elements of a compound subject or compound verb joined by *and*) Use apostrophes to indicate simple possessive nouns Recognize inappropriate uses of colons and semicolons Use commas to set off a nonessential/nonrestrictive appositive or clause **Writing** College Readiness Standards **Using Language:** Show adequate use of language to communicate by • correctly employing many of the conventions of standard English grammar, usage, and mechanics, but with some distracting errors that may occasionally impede understanding • using appropriate vocabulary • using some varied kinds of sentence structures to vary pace Show competent use of language to communicate ideas by • correctly employing most conventions of standard English grammar, usage, and mechanics, with a few distracting errors but none that impede understanding • using some precise and varied vocabulary • using several kinds of sentence structures to vary pace and to support meaning Show effective use of language to clearly communicate ideas by • correctly employing most conventions of standard English grammar, usage, and mechanics, with just a few, if any, errors • using precise and varied vocabulary • using a variety of kinds of sentence structures to vary pace and to support meaning
12.3.9. Edit and revise compositions for unity, coherence, clarity, and fluency	**English** College Readiness Standards **Organization, Unity, and Coherence:** Use conjunctive adverbs or phrases to show time relationships in simple narrative essays (e.g., *then*, *this time*) Select the most logical place to add a sentence in a paragraph Use conjunctive adverbs or phrases to express straightforward logical relationships (e.g., *first*, *afterward*, *in response*) Decide the most logical place to add a sentence in an essay Add a sentence that introduces a simple paragraph Determine the need for conjunctive adverbs or phrases to create subtle logical connections between sentences (e.g., *therefore*, *however*, *in addition*)

TABLE 1F

NORTH DAKOTA Grade 12 English Language Arts Content Standards	ACT English and Writing College Readiness Standards
Standard 3:	
	Rearrange the sentences in a fairly uncomplicated paragraph for the sake of logic
	Add a sentence to introduce or conclude the essay or to provide a transition between paragraphs when the essay is fairly straightforward
	Word Choice in Terms of Style, Tone, Clarity, and Economy:
	Revise sentences to correct awkward and confusing arrangements of sentence elements
	Revise vague nouns and pronouns that create obvious logic problems
	Delete obviously synonymous and wordy material in a sentence
	Revise expressions that deviate from the style of an essay
	Delete redundant material when information is repeated in different parts of speech (e.g., “alarmingly startled”)
	Use the word or phrase most consistent with the style and tone of a fairly straightforward essay
	Determine the clearest and most logical conjunction to link clauses
	Revise a phrase that is redundant in terms of the meaning and logic of the entire sentence
	Identify and correct ambiguous pronoun references
	Use the word or phrase most appropriate in terms of the content of the sentence and tone of the essay
	Writing College Readiness Standards
	Focusing on the Topic:
	Maintain a focus on discussion of the specific topic and issue in the prompt throughout the essay
	Present a thesis that establishes a focus on the writer’s position on the issue
	Maintain a clear focus on discussion of the specific topic and issue in the prompt throughout the essay
	Present a critical thesis that clearly establishes the focus on the writer’s position on the issue
	Organizing Ideas:
	Provide unity and coherence throughout the essay, sometimes with a logical progression of ideas
	Use relevant, though at times simple and obvious, transitional words and phrases to convey logical relationships between ideas
	Present a somewhat developed introduction and conclusion
	Provide unity and coherence throughout the essay, often with a logical progression of ideas
	Use relevant transitional words, phrases, and sentences to convey logical relationships between ideas
	Present a well-developed introduction and conclusion

TABLE 1F

NORTH DAKOTA Grade 12 English Language Arts Content Standards	ACT English and Writing College Readiness Standards
Standard 3:	
12.3.10. Edit and revise compositions with an awareness of parallel structures and proper verb tense and agreement	**English** College Readiness Standards **Sentence Structure and Formation:** Use conjunctions or punctuation to join simple clauses Revise shifts in verb tense between simple clauses in a sentence or between simple adjoining sentences Determine the need for punctuation and conjunctions to avoid awkward-sounding sentence fragments and fused sentences Decide the appropriate verb tense and voice by considering the meaning of the entire sentence Recognize and correct marked disturbances of sentence flow and structure (e.g., participial phrase fragments, missing or incorrect relative pronouns, dangling or misplaced modifiers) Revise to avoid faulty placement of phrases and faulty coordination and subordination of clauses in sentences with subtle structural problems Maintain consistent verb tense and pronoun person on the basis of the preceding clause or sentence Use sentence-combining techniques, effectively avoiding problematic comma splices, run-on sentences, and sentence fragments, especially in sentences containing compound subjects or verbs Work comfortably with long sentences and complex clausal relationships within sentences, avoiding weak conjunctions between independent clauses and maintaining parallel structure between clauses **Conventions of Usage:** Solve such grammatical problems as whether to use an adverb or adjective form, how to ensure straightforward subject-verb and pronoun-antecedent agreement, and which preposition to use in simple contexts Ensure that a verb agrees with its subject when there is some text between the two **Writing** College Readiness Standards **Using Language:** Show adequate use of language to communicate by • correctly employing many of the conventions of standard English grammar, usage, and mechanics, but with some distracting errors that may occasionally impede understanding • using appropriate vocabulary • using some varied kinds of sentence structures to vary pace Show competent use of language to communicate ideas by • correctly employing most conventions of standard English grammar, usage, and mechanics, with a few distracting errors but none that impede understanding • using some precise and varied vocabulary

TABLE 1F

NORTH DAKOTA Grade 12 English Language Arts Content Standards	ACT English and Writing College Readiness Standards
Standard 3:	
	• using several kinds of sentence structures to vary pace and to support meaning Show effective use of language to clearly communicate ideas by • correctly employing most conventions of standard English grammar, usage, and mechanics, with just a few, if any, errors • using precise and varied vocabulary • using a variety of kinds of sentence structures to vary pace and to support meaning
12.3.11. Edit and revise compositions for the use of proper clausal and phrasal patterns	**English** College Readiness Standards **Sentence Structure and Formation:** Use conjunctions or punctuation to join simple clauses Determine the need for punctuation and conjunctions to avoid awkward-sounding sentence fragments and fused sentences Recognize and correct marked disturbances of sentence flow and structure (e.g., participial phrase fragments, missing or incorrect relative pronouns, dangling or misplaced modifiers) Revise to avoid faulty placement of phrases and faulty coordination and subordination of clauses in sentences with subtle structural problems Use sentence-combining techniques, effectively avoiding problematic comma splices, run-on sentences, and sentence fragments, especially in sentences containing compound subjects or verbs Work comfortably with long sentences and complex clausal relationships within sentences, avoiding weak conjunctions between independent clauses and maintaining parallel structure between clauses **Writing** College Readiness Standards **Organizing Ideas:** Use relevant, though at times simple and obvious, transitional words and phrases to convey logical relationships between ideas Use relevant transitional words, phrases, and sentences to convey logical relationships between ideas **Using Language:** Show competent use of language to communicate ideas by • correctly employing most conventions of standard English grammar, usage, and mechanics, with a few distracting errors but none that impede understanding • using some precise and varied vocabulary • using several kinds of sentence structures to vary pace and to support meaning

TABLE 1F

NORTH DAKOTA Grade 12 English Language Arts Content Standards	ACT English and Writing College Readiness Standards
Standard 3:	
	Show effective use of language to clearly communicate ideas by • correctly employing most conventions of standard English grammar, usage, and mechanics, with just a few, if any, errors • using precise and varied vocabulary • using a variety of kinds of sentence structures to vary pace and to support meaning
PUBLISHING	
No benchmark expectations at this level	

TABLE 1F

NORTH DAKOTA Grade 12 English Language Arts Content Standards	ACT College Readiness Standards
Standard 4: Students engage in the speaking and listening process.	
PLANNING FOR AN AUDIENCE/PURPOSE	
12.4.1. Evaluate audience based on social characteristics, e.g., religion, culture, and gender	
VERBAL AND NONVERBAL COMMUNICATION	
12.4.2. Use tone, inflection, pitch, and emphasis effectively in oral presentations	
CONVERSATION, GROUP DISCUSSION, AND ORAL PRESENTATION	
12.4.3. Analyze the audience and adjust message and wording to suit the audience while speaking	
12.4.4. Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages	
12.4.5. Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches	

TABLE 1F

NORTH DAKOTA Grade 12 English Language Arts Content Standards	ACT College Readiness Standards
Standard 5: Students understand media.	
MEDIA GENRES	
12.5.1. Identify existing and developing media	
USING MEDIA FOR A PURPOSE	
12.5.2. Create a media project for a purpose	
INTERPRETING MEDIA	
12.5.3. Evaluate instances of gender equity and political correctness in media messages	
12.5.4. Evaluate media messages in their historical and/or cultural contexts and intended audience	
12.5.5. Examine advanced media techniques, e.g., music and sound, camera angles, lighting, and aesthetic effects	

TABLE 1F

NORTH DAKOTA Grade 12 English Language Arts Content Standards	ACT English, Reading, and Writing College Readiness Standards
Standard 6: Students understand and use principles of language.	
LANGUAGE CONVENTIONS/MECHANICS	
12.6.1. Use conventions of grammar, usage, and punctuation to edit and revise	**English** College Readiness Standards **Sentence Structure and Formation:** Use conjunctions or punctuation to join simple clauses Revise shifts in verb tense between simple clauses in a sentence or between simple adjoining sentences Determine the need for punctuation and conjunctions to avoid awkward-sounding sentence fragments and fused sentences Decide the appropriate verb tense and voice by considering the meaning of the entire sentence Recognize and correct marked disturbances of sentence flow and structure (e.g., participial phrase fragments, missing or incorrect relative pronouns, dangling or misplaced modifiers) Revise to avoid faulty placement of phrases and faulty coordination and subordination of clauses in sentences with subtle structural problems Maintain consistent verb tense and pronoun person on the basis of the preceding clause or sentence Use sentence-combining techniques, effectively avoiding problematic comma splices, run-on sentences, and sentence fragments, especially in sentences containing compound subjects or verbs Maintain a consistent and logical use of verb tense and pronoun person on the basis of information in the paragraph or essay as a whole **Conventions of Usage:** Solve such basic grammatical problems as how to form the past and past participle of irregular but commonly used verbs and how to form comparative and superlative adjectives Solve such grammatical problems as whether to use an adverb or adjective form, how to ensure straightforward subject-verb and pronoun-antecedent agreement, and which preposition to use in simple contexts Recognize and use the appropriate word in frequently confused pairs such as *there* and *their*, *past* and *passed*, and *led* and *lead* Use idiomatically appropriate prepositions, especially in combination with verbs (e.g., *long for*, *appeal to*) Ensure that a verb agrees with its subject when there is some text between the two Ensure that a pronoun agrees with its antecedent when the two occur in separate clauses or sentences Identify the correct past and past participle forms of irregular and infrequently used verbs and form present-perfect verbs by using *have* rather than *of*

TABLE 1F

NORTH DAKOTA Grade 12 English Language Arts Content Standards	ACT English, Reading, and Writing College Readiness Standards
Standard 6:	
	Correctly use reflexive pronouns, the possessive pronouns *its* and *your*, and the relative pronouns *who* and *whom* Ensure that a verb agrees with its subject in unusual situations (e.g., when the subject-verb order is inverted or when the subject is an indefinite pronoun) **Conventions of Punctuation:** Delete commas that create basic sense problems (e.g., between verb and direct object) Provide appropriate punctuation in straightforward situations (e.g., items in a series) Delete commas that disturb the sentence flow (e.g., between modifier and modified element) Use commas to set off simple parenthetical phrases Delete unnecessary commas when an incorrect reading of the sentence suggests a pause that should be punctuated (e.g., between verb and direct object clause) Use punctuation to set off complex parenthetical phrases Recognize and delete unnecessary commas based on a careful reading of a complicated sentence (e.g., between the elements of a compound subject or compound verb joined by *and*) Use apostrophes to indicate simple possessive nouns Recognize inappropriate uses of colons and semicolons Use commas to set off a nonessential/nonrestrictive appositive or clause **Writing** College Readiness Standards **Using Language:** Show adequate use of language to communicate by • correctly employing many of the conventions of standard English grammar, usage, and mechanics, but with some distracting errors that may occasionally impede understanding • using appropriate vocabulary • using some varied kinds of sentence structures to vary pace Show competent use of language to communicate ideas by • correctly employing most conventions of standard English grammar, usage, and mechanics, with a few distracting errors but none that impede understanding • using some precise and varied vocabulary • using several kinds of sentence structures to vary pace and to support meaning Show effective use of language to clearly communicate ideas by • correctly employing most conventions of standard English grammar, usage, and mechanics, with just a few, if any, errors • using precise and varied vocabulary

TABLE 1F

NORTH DAKOTA Grade 12 English Language Arts Content Standards	ACT English, Reading, and Writing College Readiness Standards
Standard 6:	
	• using a variety of kinds of sentence structures to vary pace and to support meaning
LITERARY ELEMENTS AND TECHNIQUES	
12.6.2. Apply figurative language i.e., allusion, analogy, hyperbole, irony, personification, oxymoron, paradox	**Reading** College Readiness Standards **Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages
12.6.3. Interpret the use of language in different literary forms i.e., satire, parody	
12.6.4. Identify allegory	
LANGUAGE CONTEXT	
No benchmark expectations at this level	

TABLE 1G

NORTH DAKOTA Grade 12 English Language Arts Content Standards	WorkKeys Reading for Information Skills
Standard 1: Students engage in the research process.	
RESEARCH PLANNING	
12.1.1. Plan a research strategy	
12.1.2. Determine purpose e.g., inform, persuade	
12.1.3. Develop a research question	
ACCESSING INFORMATION	
No benchmark expectations at this level	
ORGANIZING RESEARCH INFORMATION	
12.1.4. Defend research paper or project	
PRESENTATION	
No benchmark expectations at this level	
EVALUATING RESEARCH PROCESS	
12.1.5. Evaluate the research process and apply strategies to a variety of writing purposes e.g., correct use of research format, accuracy of research, organization of information and use of sources	

TABLE 1G

NORTH DAKOTA Grade 12 English Language Arts Content Standards	WorkKeys Reading for Information Skills
Standard 2: Students engage in the reading process.	
LITERARY GENRES	
12.2.1. Identify satire and allegory	
INFORMATIONAL GENRES	
12.2.2. Critique details, facts, and concepts from nonfiction genres	Identify main ideas and clearly stated details Choose the correct meaning of a word that is clearly defined in the reading Choose the correct meaning of common, everyday and workplace words Choose when to perform each step in a short series of steps Apply instructions to a situation that is the same as the one in the reading materials Identify important details that may not be clearly stated Use the reading material to figure out the meaning of words that are not defined Apply instructions with several steps to a situation that is the same as the situation in the reading materials Choose what to do when changing conditions call for a different action (follow directions that include "if-then" statements) Figure out the correct meaning of a word based on how the word is used Identify the correct meaning of an acronym that is defined in the document Identify the paraphrased definition of a technical term or jargon that is defined in the document Apply technical terms and jargon and relate them to stated situations Apply straightforward instructions to a new situation that is similar to the one described in the material Apply complex instructions that include condi¬tionals to situations described in the materials Identify implied details Use technical terms and jargon in new situations Figure out the less common meaning of a word based on the context Apply complicated instructions to new situations Figure out the principles behind policies, rules, and procedures Apply general principles from the materials to similar and new situations Explain the rationale behind a procedure, policy, or communication Figure out the definitions of difficult, uncommon words based on how they are used Figure out the meaning of jargon or technical terms based on how they are used

TABLE 1G

NORTH DAKOTA Grade 12 English Language Arts Content Standards	WorkKeys Reading for Information Skills
Standard 2:	
	Figure out the general principles behind the policies and apply them to situations that are quite different from any described in the materials
READING STRATEGIES FOR INTERPRETING MEANING OF TEXTS	
12.2.3. Identify techniques used in persuasive writing such as fallacies of logic, faulty reasoning, and manipulative language	
PURPOSES FOR READING	
12.2.4. Read for a variety of purposes and intents e.g., to become life-long readers, to model forms of writing	
LITERARY ELEMENTS AND TECHNIQUES	
12.2.5. Interpret author's use of figurative language including allusion, imagery, and symbolism	
12.2.6. Interpret author's use of syntax and word choice/diction	
12.2.7. Critique literary merit of a work of literature	
VOCABULARY	
12.2.8. Use technical language/jargon to decipher meaning	Apply technical terms and jargon and relate them to stated situations Use technical terms and jargon in new situations

TABLE 1G

NORTH DAKOTA Grade 12 English Language Arts Content Standards	WorkKeys Reading for Information Skills
Standard 3: Students engage in the writing process.	
INFORMATIVE WRITING	
12.3.1. Write business or other formal documents, including resumes, scholarship letters, and letters of inquiry or complaint	
NARRATIVE WRITING	
No benchmark expectations at this level	
PERSUASIVE WRITING	
12.3.2. Write persuasive compositions, including structuring arguments logically, using rhetorical devices, defending positions with evidence, and addressing readers' concerns and biases e.g., editorials, critical reviews	
PREWRITING	
12.3.3. Organize the ideas and details of a composition according to purpose	
12.3.4. Use variety of sources for supporting details	
DRAFTING	
12.3.5. Elaborate ideas through word choice and description using grade-level vocabulary	
12.3.6. Organize and write compositions for nation and world	
LITERARY ELEMENTS AND TECHNIQUES	
12.3.7. Use techniques to convey an individual voice and style e.g., tone, syntax, diction, figurative language	
REVISING AND EDITING	
12.3.8. Edit and revise compositions for standard writing conventions and appropriate tone	
12.3.9. Edit and revise compositions for unity, coherence, clarity, and fluency	
12.3.10. Edit and revise compositions with an awareness of parallel structures and proper verb tense and agreement	
12.3.11. Edit and revise compositions for the use of proper clausal and phrasal patterns	
PUBLISHING	
No benchmark expectations at this level	

TABLE 1G

NORTH DAKOTA Grade 12 English Language Arts Content Standards	WorkKeys Reading for Information Skills
Standard 4: Students engage in the speaking and listening process.	
PLANNING FOR AN AUDIENCE/PURPOSE	
12.4.1. Evaluate audience based on social characteristics, e.g., religion, culture, and gender	
VERBAL AND NONVERBAL COMMUNICATION	
12.4.2. Use tone, inflection, pitch, and emphasis effectively in oral presentations	
CONVERSATION, GROUP DISCUSSION, AND ORAL PRESENTATION	
12.4.3. Analyze the audience and adjust message and wording to suit the audience while speaking	
12.4.4. Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages	
12.4.5. Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches	

TABLE 1G

NORTH DAKOTA Grade 12 English Language Arts Content Standards	WorkKeys Reading for Information Skills
Standard 5: Students understand media.	
MEDIA GENRES	
12.5.1. Identify existing and developing media	
USING MEDIA FOR A PURPOSE	
12.5.2. Create a media project for a purpose	
INTERPRETING MEDIA	
12.5.3. Evaluate instances of gender equity and political correctness in media messages	
12.5.4. Evaluate media messages in their historical and/or cultural contexts and intended audience	
12.5.5. Examine advanced media techniques, e.g., music and sound, camera angles, lighting, and aesthetic effects	

TABLE 1G

NORTH DAKOTA Grade 12 English Language Arts Content Standards	WorkKeys Reading for Information Skills
Standard 6: Students understand and use principles of language.	
LANGUAGE CONVENTIONS/MECHANICS	
12.6.1. Use conventions of grammar, usage, and punctuation to edit and revise	
LITERARY ELEMENTS AND TECHNIQUES	
12.6.2. Apply figurative language i.e., allusion, analogy, hyperbole, irony, personification, oxymoron, paradox	
12.6.3. Interpret the use of language in different literary forms i.e., satire, parody	
12.6.4. Identify allegory	
LANGUAGE CONTEXT	
No benchmark expectations at this level	

SUPPLEMENT
TABLES 2A–2E:
MATHEMATICS

TABLE 2A

NORTH DAKOTA Grade 8 Mathematics Content Standards	EXPLORE Mathematics College Readiness Standards
Standard 1: Number and Operation Students understand and use basic and advanced concepts of number and number systems.	
NUMBERS, NUMBER RELATIONSHIPS, AND NUMBER SYSTEMS	
8.1.1. Identify subsets of the real number system, i.e., natural and whole numbers, integers, rational and irrational numbers	
8.1.2. Solve real-world problems involving ratio, proportion, and percent	**Basic Operations & Applications:** Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average
8.1.3. Identify perfect squares 1 to 144 and approximate square roots	**Numbers: Concepts & Properties:** Work with squares and square roots of numbers
8.1.4. Represent large and small numbers using scientific notation	**Numbers: Concepts & Properties:** Identify a digit's place value Work with scientific notation
OPERATIONS AND THEIR PROPERTIES	
8.1.5. Apply operation properties to simplify computations and solve problems, i.e., commutative, associative, and distributive	**Basic Operations & Applications:** Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average
8.1.6. Apply the order of operations to simplify numeric expressions and solve problems	**Basic Operations & Applications:** Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems

TABLE 2A

NORTH DAKOTA Grade 8 Mathematics Content Standards	EXPLORE Mathematics College Readiness Standards
Standard 1: Number and Operation	
COMPUTATIONAL FLUENCY AND ESTIMATION	
8.1.7. Add, subtract, multiply, and divide integers	**Basic Operations & Applications:** Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems
8.1.8. Select and use a computational technique (e.g., mental calculation, paper-and-pencil, technology) to solve problems	**Basic Operations & Applications:** Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems
8.1.9. Determine when an estimate is sufficient and an exact answer is needed in problem situations	**Basic Operations & Applications:** Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour)

TABLE 2A

NORTH DAKOTA Grade 8 Mathematics Content Standards	EXPLORE Mathematics College Readiness Standards
Standard 2: Geometry and Spatial Sense Students understand and apply geometric concepts and spatial relationships to represent and solve problems in mathematical and nonmathematical situations.	
TWO- AND THREE-DIMENSIONAL SHAPES, GEOMETRIC PROPERTIES AND RELATIONSHIPS	
8.2.1. Use nets to represent the relationships between two- and three-dimensional figures	
8.2.2. Classify quadrilaterals based on side lengths, angle measures, and sets of parallel sides	**Properties of Plane Figures:** Exhibit knowledge of basic angle properties and special sums of angle measures (e.g., 90°, 180°, and 360°)
8.2.3. Identify the angles formed and the relationships between the angles when parallel lines are intersected by a transversal	**Properties of Plane Figures:** Exhibit some knowledge of the angles associated with parallel lines Find the measure of an angle using properties of parallel lines
8.2.4. Apply the Pythagorean Theorem to problems involving right triangles	
COORDINATE GEOMETRY	
8.2.5. Represent shapes using coordinate geometry	**Graphical Representations:** Locate points on the number line and in the first quadrant Locate points in the coordinate plane
TRANSFORMATION AND SYMMETRY	
8.2.6. Draw the results of a combination of transformations in the coordinate plane, i.e., reflections, rotations, and translations	
8.2.7. Use scale, proportion, and congruency to solve problems involving similar figures	**Properties of Plane Figures:** Exhibit knowledge of basic angle properties and special sums of angle measures (e.g., 90°, 180°, and 360°)
VISUALIZATION, SPATIAL REASONING, AND GEOMETRIC MODELING	
8.2.8. Use two-dimensional representations of threedimensional objects to visualize and solve problems, e.g., those involving surface area and volume	**Measurement:** Use geometric formulas when all necessary information is given

TABLE 2A

NORTH DAKOTA Grade 8 Mathematics Content Standards	EXPLORE Mathematics College Readiness Standards
Standard 3: Data Analysis, Statistics, and Probability Students use data collection and analysis techniques, statistical methods, and probability to solve problems.	
DATA COLLECTION, DISPLAY, AND INTERPRETATION	
8.3.1. Formulate a question and select a random or representative sample	
8.3.2. Collect, organize, and display data using scatter and stem-and-leaf plot	**Probability, Statistics, & Data Analysis:** Read tables and graphs Translate from one representation of data to another (e.g., a bar graph to a circle graph) Manipulate data from tables and graphs **Graphical Representations:** Locate points on the number line and in the first quadrant Locate points in the coordinate plane
PROBABILITY	
8.3.3. Determine possible outcomes using organized lists, tree diagrams, Venn diagrams, factorials, and the basic counting principle	**Probability, Statistics, & Data Analysis:** Read tables and graphs Translate from one representation of data to another (e.g., a bar graph to a circle graph)
8.3.4. Distinguish between experimental and theoretical probability, i.e., the results of an experiment may not match the theoretical probability	**Probability, Statistics, & Data Analysis:** Read tables and graphs
STATISTICAL METHODS	
8.3.5. Calculate and compare the measures of central tendency (i.e., mean, median, mode) and spread (i.e., range)	**Probability, Statistics, & Data Analysis:** Calculate the average of a list of positive whole numbers Calculate the average of a list of numbers Calculate the average, given the number of data values and the sum of the data values Calculate the missing data value, given the average and all data values but one Calculate the average, given the frequency counts of all the data values
8.3.6. Identify an outlier within a set of data and discuss its effects on the measures of central tendency and spread	**Probability, Statistics, & Data Analysis:** Read tables and graphs
PREDICTIONS, DATA ANALYSIS, AND INFERENCES	
8.3.7. Make inferences based on analysis of data and interpretation of graphs	**Probability, Statistics, & Data Analysis:** Perform a single computation using information from a table or chart Read tables and graphs Perform computations on data from tables and graphs Translate from one representation of data to another (e.g., a bar graph to a circle graph) Manipulate data from tables and graphs

TABLE 2A

NORTH DAKOTA Grade 8 Mathematics Content Standards	EXPLORE Mathematics College Readiness Standards
Standard 4: Measurement Students use concepts and tools of measurement to describe and quantify the world.	
MEASURABLE ATTRIBUTES, MEASUREMENT SYSTEMS AND UNITS	
8.4.1. Select an appropriate degree of precision when using measurements for calculations	**Basic Operations & Applications:** Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour)
8.4.2. Compare unit measurements between systems, e.g., a yard is almost a meter	**Basic Operations & Applications:** Perform common conversions (e.g., inches to feet or hours to minutes) Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour)
MEASUREMENT TOOLS, TECHNIQUES, AND FORMULAS	
8.4.3. Use formulas to determine the surface area and volume of right cones and spheres	**Expressions, Equations, & Inequalities:** Substitute whole numbers for unknown quantities to evaluate expressions Evaluate algebraic expressions by substituting integers for unknown quantities **Measurement:** Use geometric formulas when all necessary information is given

TABLE 2A

NORTH DAKOTA Grade 8 Mathematics Content Standards	EXPLORE Mathematics College Readiness Standards
Standard 5: Algebra, Functions, and Patterns Students use algebraic concepts, functions, patterns, and relationships to solve problems.	
PATTERNS, RELATIONS, AND FUNCTIONS	
8.5.1. Extend numerical patterns, e.g., Pascal's triangle and the Fibonacci sequence	**Basic Operations & Applications:** Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems **Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor
NUMERIC AND ALGEBRAIC REPRESENTATIONS	
8.5.2. Use variables, expressions, and equations to represent problem situations	**Expressions, Equations, & Inequalities:** Exhibit knowledge of basic expressions (e.g., identify an expression for a total as $b + g$) Perform straightforward word-to-symbol translations Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions)
8.5.3. Apply the order of operations and the commutative, associative, and distributive properties to simplify algebraic expressions	**Expressions, Equations, & Inequalities:** Combine like terms (e.g., $2x + 5x$) Add and subtract simple algebraic expressions
8.5.4. Apply inverse operations and the properties of equality to solve multi-step equations and inequalities in one variable	**Expressions, Equations, & Inequalities:** Solve equations in the form $x + a = b$, where a and b are whole numbers or decimals Solve one-step equations having integer or decimal answers Solve routine first-degree equations Solve real-world problems using first-degree equations
MATHEMATICAL MODELING	
8.5.5. Write multi-step equations and inequalities to represent problem situations	**Expressions, Equations, & Inequalities:** Exhibit knowledge of basic expressions (e.g., identify an expression for a total as $b + g$) Perform straightforward word-to-symbol translations Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions)

TABLE 2A

NORTH DAKOTA Grade 8 Mathematics Content Standards	EXPLORE Mathematics College Readiness Standards
Standard 5: Algebra, Functions, and Patterns	
RATES OF CHANGE	
8.5.6. Solve problems involving rates, i.e., speed equals distance divided by time (miles per hour)	**Basic Operations & Applications:** Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Perform common conversions (e.g., inches to feet or hours to minutes) Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour)

TABLE 2B

NORTH DAKOTA Grades 9–10 Mathematics Content Standards	EXPLORE Mathematics College Readiness Standards
Standard 1: Number and Operation Students understand and use basic and advanced concepts of number and number systems.	
NUMBERS, NUMBER RELATIONSHIPS, AND NUMBER SYSTEMS	
9–10.1.1. Express numbers between one-billionth and one billion in fraction, decimal, and verbal form; express numbers of all magnitudes in scientific notation	**Numbers: Concepts & Properties:** Identify a digit's place value Work with scientific notation
9–10.1.2. Describe the hierarchal relationships (e.g., integers are rationals) among subsets of the real number system, i.e., reals, rationals, irrationals, integers, wholes, and naturals	
9–10.1.3. Identify the properties of the real number system, i.e., commutative, associative, distributive, closure, inverse, and identity properties	
9–10.1.4. Represent a set of data in a matrix	**Probability, Statistics, & Data Analysis:** Translate from one representation of data to another (e.g., a bar graph to a circle graph)
OPERATIONS AND THEIR PROPERTIES	
9–10.1.5. Use the order of operations and properties of exponents to simplify an algebraic expression	
9–10.1.6. Analyze the effects of multiplication, division, raising to a power, and extracting a root on the magnitudes of quantities, e.g., when will the square root of a number be greater than the number itself, or what will happen to the magnitude of a number when you multiply it by a negative number?	**Basic Operations & Applications:** Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average **Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor Work with squares and square roots of numbers
9–10.1.7. Apply basic properties of exponents to simplify algebraic expressions, i.e., power of a product, power of a power, products and quotients of powers, zero and negative exponents	

TABLE 2B

NORTH DAKOTA Grades 9–10 Mathematics Content Standards	EXPLORE Mathematics College Readiness Standards
Standard 1: Number and Operation	
COMPUTATIONAL FLUENCY AND ESTIMATION	
9–10.1.8. Apply estimation skills to predict realistic solutions to problems	**Basic Operations & Applications:** Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems
9–10.1.9. Select and use a computational technique (i.e., mental calculation, paper-and-pencil, or technology) to solve problems involving real numbers	**Basic Operations & Applications:** Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour)
9–10.1.10. Explain the reasonableness of a problem's solution and the process used to obtain it	**Basic Operations & Applications:** Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour)
9–10.1.11. Add, subtract, and perform scalar multiplication on matrices	**Probability, Statistics, & Data Analysis:** Perform a single computation using information from a table or chart Perform computations on data from tables and graphs Manipulate data from tables and graphs

TABLE 2B

NORTH DAKOTA Grades 9–10 Mathematics Content Standards	EXPLORE Mathematics College Readiness Standards
Standard 2: Geometry and Spatial Sense Students understand and apply geometric concepts and spatial relationships to represent and solve problems in mathematical and nonmathematical situations.	
TWO- AND THREE-DIMENSIONAL SHAPES, GEOMETRIC PROPERTIES AND RELATIONSHIPS	
9–10.2.1. Identify the properties and attributes of two- and three-dimensional objects that distinguish one from another, e.g., a cylinder has two parallel circular bases	**Properties of Plane Figures:** Exhibit knowledge of basic angle properties and special sums of angle measures (e.g., 90°, 180°, and 360°)
9–10.2.2. Determine congruence and similarity among geometric objects	
9–10.2.3. Use trigonometric relationships and the Pythagorean Theorem to determine side lengths and angle measures in right triangles	**Properties of Plane Figures:** Use several angle properties to find an unknown angle measure
9–10.2.4. Using given information, establish the validity of a conjecture using a two-column or paragraph proof	
COORDINATE GEOMETRY	
9–10.2.5. Use Cartesian coordinates to determine distance, midpoint, and slope	
9–10.2.6. Use distance, midpoint, and slope to determine relationships between points, lines, and plane figures in the Cartesian coordinate system, e.g., determine whether a triangle is scalene, isosceles, or equilateral given the coordinates of its vertices	
TRANSFORMATION AND SYMMETRY	
9–10.2.7. Identify and perform transformations of objects in the plane using sketches (translations, reflections, rotations, and dilations) and coordinates (translations, reflections, and dilations)	
9–10.2.8. Describe the effects of combining basic transformations in a plane, e.g., two reflections over parallel lines results in a translation	
VISUALIZATION, SPATIAL REASONING, AND GEOMETRIC MODELING	
9–10.2.9. Construct plane figures using traditional and/or technological tools, i.e., congruent segments, congruent angles, angle and segment bisectors, perpendicular and parallel lines	**Properties of Plane Figures:** Exhibit some knowledge of the angles associated with parallel lines Find the measure of an angle using properties of parallel lines Use several angle properties to find an unknown angle measure
9–10.2.10. Recognize images of the same object shown from different perspectives, i.e., a two-dimensional image of a three-dimensional object	

TABLE 2B

NORTH DAKOTA Grades 9–10 Mathematics Content Standards	EXPLORE Mathematics College Readiness Standards
Standard 2: Geometry and Spatial Sense	
9–10.2.11. Use geometric models to find solutions to problems in mathematics and other disciplines, e.g., art and architecture	**Properties of Plane Figures:** Find the measure of an angle using properties of parallel lines Use several angle properties to find an unknown angle measure **Measurement:** Estimate or calculate the length of a line segment based on other lengths given on a geometric figure Compute the perimeter of polygons when all side lengths are given Compute the area of rectangles when whole number dimensions are given Compute the area and perimeter of triangles and rectangles in simple problems Use geometric formulas when all necessary information is given Compute the area of triangles and rectangles when one or more additional simple steps are required Compute the area and circumference of circles after identifying necessary information

TABLE 2B

NORTH DAKOTA Grades 9–10 Mathematics Content Standards	EXPLORE Mathematics College Readiness Standards
Standard 3: Data Analysis, Statistics, and Probability Students use data collection and analysis techniques, statistical methods, and probability to solve problems.	
DATA COLLECTION, DISPLAY, AND INTERPRETATION	
9–10.3.1. Construct appropriate displays of given data, i.e., circle graphs, bar graphs, histograms, stem-and-leaf plots, box-and-whisker plots, and scatter plots	**Probability, Statistics, & Data Analysis:** Read tables and graphs Perform computations on data from tables and graphs Translate from one representation of data to another (e.g., a bar graph to a circle graph) Manipulate data from tables and graphs
9–10.3.2. Interpret a given visual representation (i.e., circle graphs, bar graphs, histograms, stem-and-leaf plots, box-and-whisker plots, and scatter plots) of a set of data	**Probability, Statistics, & Data Analysis:** Read tables and graphs
9–10.3.3. Identify the variable, sample, and population in a well-designed study, e.g., in an exit poll for a tax increase, the variable is the outcome of the vote, the sample is the set of people surveyed, the population is the set of all voters	
PROBABILITY	
9–10.3.4. Determine the number of possible outcomes for a given event, using appropriate counting techniques, e.g., fundamental counting principle, factorials, combinations, permutations	
9–10.3.5. Calculate experimental and theoretical probabilities with and without replacement	**Probability, Statistics, & Data Analysis:** Use the relationship between the probability of an event and the probability of its complement Determine the probability of a simple event Compute straightforward probabilities for common situations
9–10.3.6. Calculate probabilities of compound events using addition and multiplication rules	
STATISTICAL METHODS	
9–10.3.7. Calculate measures of central tendency and spread, i.e., mean, median, mode, range, and quartiles	**Probability, Statistics, & Data Analysis:** Calculate the average of a list of positive whole numbers Calculate the average of a list of numbers Calculate the average, given the number of data values and the sum of the data values Calculate the missing data value, given the average and all data values but one Calculate the average, given the frequency counts of all the data values
9–10.3.8. Discuss relationships among measures of central tendency and spread, i.e., mean, median, mode, range, and quartiles	
PREDICTIONS, DATA ANALYSIS, AND INFERENCES	
9–10.3.9. Select two points and approximate an equation for the line of best fit (if appropriate) for a set of data	**Graphical Representations:** Locate points on the number line and in the first quadrant Locate points in the coordinate plane

TABLE 2B

NORTH DAKOTA Grades 9–10 Mathematics Content Standards	EXPLORE Mathematics College Readiness Standards
Standard 3: Data Analysis, Statistics, and Probability	
9–10.3.10. Identify the trend of a set of data and estimate the strength of the correlation between two variables, e.g., strong vs. weak, positive vs. negative	**Probability, Statistics, & Data Analysis:** Read tables and graphs Manipulate data from tables and graphs

TABLE 2B

NORTH DAKOTA Grades 9–10 Mathematics Content Standards	EXPLORE Mathematics College Readiness Standards
Standard 4: Measurement Students use concepts and tools of measurement to describe and quantify the world.	
MEASURABLE ATTRIBUTES, MEASUREMENT SYSTEMS AND UNITS	
9–10.4.1. Select appropriate units and scales for problem situations involving measurement	**Basic Operations & Applications:** Perform common conversions (e.g., inches to feet or hours to minutes)
9–10.4.2. Describe the effects of scalar change on the area and volume of a figure, e.g., the effect of doubling one or more edges of a solid on its surface area and volume	**Measurement:** Compute the area and perimeter of triangles and rectangles in simple problems Compute the area of triangles and rectangles when one or more additional simple steps are required
9–10.4.3. Use approximations to compare the standard and metric systems of measurement, e.g., a five-kilometer race is about three miles long	**Basic Operations & Applications:** Perform common conversions (e.g., inches to feet or hours to minutes) Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour)
9–10.4.4. Given a conversion factor, convert between standard and metric measurements	**Basic Operations & Applications:** Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Perform common conversions (e.g., inches to feet or hours to minutes) Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour)

TABLE 2B

NORTH DAKOTA Grades 9–10 Mathematics Content Standards	EXPLORE Mathematics College Readiness Standards
Standard 4: Measurement	
MEASUREMENT TOOLS, TECHNIQUES, AND FORMULAS	
9–10.4.5. Use methods necessary to achieve a specified degree of precision and accuracy (i.e., appropriate number of significant digits) in measurement situations	**Basic Operations & Applications:** Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Perform common conversions (e.g., inches to feet or hours to minutes) Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour)
9–10.4.6. Employ estimation techniques to evaluate reasonableness of results in measurement situations	**Basic Operations & Applications:** Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems **Measurement:** Estimate or calculate the length of a line segment based on other lengths given on a geometric figure
9–10.4.7. Use unit analysis to track units during computations	**Basic Operations & Applications:** Perform common conversions (e.g., inches to feet or hours to minutes) Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour)
9–10.4.8. Given a formula list, compute the area of a regular polygon	**Expressions, Equations, & Inequalities:** Substitute whole numbers for unknown quantities to evaluate expressions Evaluate algebraic expressions by substituting integers for unknown quantities **Measurement:** Compute the area of rectangles when whole number dimensions are given Compute the area and perimeter of triangles and rectangles in simple problems Use geometric formulas when all necessary information is given

TABLE 2B

NORTH DAKOTA Grades 9–10 Mathematics Content Standards	EXPLORE Mathematics College Readiness Standards
Standard 4: Measurement	
	Compute the area of triangles and rectangles when one or more additional simple steps are required Compute the area and circumference of circles after identifying necessary information
9–10.4.9. Given a formula list, compute the surface area and volume of a right prism, right cylinder, right pyramid, right cone, and sphere	**Expressions, Equations, & Inequalities:** Substitute whole numbers for unknown quantities to evaluate expressions Evaluate algebraic expressions by substituting integers for unknown quantities **Measurement:** Compute the area of rectangles when whole number dimensions are given Compute the area and perimeter of triangles and rectangles in simple problems Use geometric formulas when all necessary information is given Compute the area of triangles and rectangles when one or more additional simple steps are required Compute the area and circumference of circles after identifying necessary information
9–10.4.10. Apply indirect measurement techniques to solve problems involving irregular shapes or inaccessible objects, e.g., calculate the distance across a lake, triangulate an irregular region to find its approximate area	**Properties of Plane Figures:** Exhibit knowledge of basic angle properties and special sums of angle measures (e.g., 90°, 180°, and 360°) **Measurement:** Compute the area of rectangles when whole number dimensions are given Compute the area and perimeter of triangles and rectangles in simple problems Compute the area of triangles and rectangles when one or more additional simple steps are required

TABLE 2B

NORTH DAKOTA Grades 9–10 Mathematics Content Standards	EXPLORE Mathematics College Readiness Standards
Standard 5: Algebra, Functions, and Patterns Students use algebraic concepts, functions, patterns, and relationships to solve problems.	
PATTERNS, RELATIONS, AND FUNCTIONS	
9–10.5.1. Given the explicit and/or the recursive definition of a sequence, generate a specific term (explicit formula only) or a specified number of terms	**Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor **Expressions, Equations, & Inequalities:** Substitute whole numbers for unknown quantities to evaluate expressions Evaluate algebraic expressions by substituting integers for unknown quantities
9–10.5.2. Express relations and functions using a variety of representations, i.e., numeric, graphic, symbolic, and verbal	**Probability, Statistics, & Data Analysis:** Read tables and graphs Perform computations on data from tables and graphs Translate from one representation of data to another (e.g., a bar graph to a circle graph) Manipulate data from tables and graphs **Expressions, Equations, & Inequalities:** Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions) **Graphical Representations:** Locate points on the number line and in the first quadrant Locate points in the coordinate plane
9–10.5.3. Determine whether a relation is a function by examining various representations of the relation, e.g., table, graph, equation, set of ordered pairs	**Probability, Statistics, & Data Analysis:** Read tables and graphs Perform computations on data from tables and graphs Translate from one representation of data to another (e.g., a bar graph to a circle graph) Manipulate data from tables and graphs
9–10.5.4. Perform the operations of addition, subtraction, multiplication, and division on algebraic functions, e.g., given f(x) = 2x and g(x) = 5x – 7, find f(x) + g(x)	**Expressions, Equations, & Inequalities:** Combine like terms (e.g., $2x + 5x$) Add and subtract simple algebraic expressions
9–10.5.5. Identify the independent variable, dependent variable, domain, and range of a function	
9–10.5.6. Draw graphs of linear and quadratic functions using paper and pencil, labeling key features, e.g., graph a line and label its x-intercept and y-intercept, graph a parabola and label its vertex and one point on each side of the vertex	**Graphical Representations:** Locate points on the number line and in the first quadrant Locate points in the coordinate plane

TABLE 2B

NORTH DAKOTA Grades 9–10 Mathematics Content Standards	EXPLORE Mathematics College Readiness Standards
Standard 5: Algebra, Functions, and Patterns	
NUMERIC AND ALGEBRAIC REPRESENTATIONS	
9–10.5.7. Develop algebraic expressions, equations, or inequalities involving one or two variables to represent relationships (e.g., given a verbal statement, write an equivalent algebraic expression or equation) found in various contexts (e.g., time and distance problems, mixture problems)	**Expressions, Equations, & Inequalities:** Perform straightforward word-to-symbol translations Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions)
9–10.5.8. Manipulate algebraic expressions and equations using properties of real numbers, e.g., simplify, factor	**Numbers: Concepts & Properties:** Recognize one-digit factors of a number Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor Work with numerical factors **Expressions, Equations, & Inequalities:** Combine like terms (e.g., $2x + 5x$) Add and subtract simple algebraic expressions
9–10.5.9. Solve linear equations and inequalities, systems of two linear equations or inequalities, and quadratic equations having rational solutions, e.g., factoring, quadratic formula	**Expressions, Equations, & Inequalities:** Solve equations in the form $x + a = b$, where a and b are whole numbers or decimals Solve one-step equations having integer or decimal answers Solve routine first-degree equations Solve real-world problems using first-degree equations Identify solutions to simple quadratic equations
9–10.5.10. Solve a literal equation for a specified variable, e.g., solve I = prt for r, or solve 7n + p = t for n	
MATHEMATICAL MODELING	
9–10.5.11. Use essential quantitative relationships in a situation to determine whether the relationship can be modeled by a linear function, e.g., simple interest is linear, compound interest is not linear	**Probability, Statistics, & Data Analysis:** Read tables and graphs Perform computations on data from tables and graphs Translate from one representation of data to another (e.g., a bar graph to a circle graph) Manipulate data from tables and graphs **Expressions, Equations, & Inequalities:** Solve routine first-degree equations Perform straightforward word-to-symbol translations Solve real-world problems using first-degree equations Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions)

TABLE 2B

NORTH DAKOTA Grades 9–10 Mathematics Content Standards	EXPLORE Mathematics College Readiness Standards
Standard 5: Algebra, Functions, and Patterns	
9–10.5.12. Graphically represent the solution or solutions to an equation, inequality, or system	**Graphical Representations:** Identify the location of a point with a positive coordinate on the number line Locate points on the number line and in the first quadrant Locate points in the coordinate plane
9–10.5.13. Interpret a graphical representation of a real-world situation	**Graphical Representations:** Locate points on the number line and in the first quadrant Locate points in the coordinate plane
9–10.5.14. Draw conclusions about a situation being modeled	
RATES OF CHANGE	
9–10.5.15. Approximate and interpret rates of change from graphical and numerical data	**Graphical Representations:** Locate points on the number line and in the first quadrant Locate points in the coordinate plane

TABLE 2C

NORTH DAKOTA Grades 9–10 Mathematics Content Standards	PLAN Mathematics College Readiness Standards
Standard 1: Number and Operation Students understand and use basic and advanced concepts of number and number systems.	
NUMBERS, NUMBER RELATIONSHIPS, AND NUMBER SYSTEMS	
9–10.1.1. Express numbers between one-billionth and one billion in fraction, decimal, and verbal form; express numbers of all magnitudes in scientific notation	**Numbers: Concepts & Properties:** Identify a digit's place value Work with scientific notation
9–10.1.2. Describe the hierarchal relationships (e.g., integers are rationals) among subsets of the real number system, i.e., reals, rationals, irrationals, integers, wholes, and naturals	
9–10.1.3. Identify the properties of the real number system, i.e., commutative, associative, distributive, closure, inverse, and identity properties	
9–10.1.4. Represent a set of data in a matrix	**Probability, Statistics, & Data Analysis:** Translate from one representation of data to another (e.g., a bar graph to a circle graph)
OPERATIONS AND THEIR PROPERTIES	
9–10.1.5. Use the order of operations and properties of exponents to simplify an algebraic expression	
9–10.1.6. Analyze the effects of multiplication, division, raising to a power, and extracting a root on the magnitudes of quantities, e.g., when will the square root of a number be greater than the number itself, or what will happen to the magnitude of a number when you multiply it by a negative number?	**Basic Operations & Applications:** Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average **Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor Work with squares and square roots of numbers Apply number properties involving positive/negative numbers
9–10.1.7. Apply basic properties of exponents to simplify algebraic expressions, i.e., power of a product, power of a power, products and quotients of powers, zero and negative exponents	**Numbers: Concepts & Properties:** Work problems involving positive integer exponents Apply rules of exponents

TABLE 2C

NORTH DAKOTA Grades 9–10 Mathematics Content Standards	PLAN Mathematics College Readiness Standards
Standard 1: Number and Operation	
COMPUTATIONAL FLUENCY AND ESTIMATION	
9–10.1.8. Apply estimation skills to predict realistic solutions to problems	**Basic Operations & Applications:** Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems
9–10.1.9. Select and use a computational technique (i.e., mental calculation, paper-and-pencil, or technology) to solve problems involving real numbers	**Basic Operations & Applications:** Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour) Solve word problems containing several rates, proportions, or percentages
9–10.1.10. Explain the reasonableness of a problem's solution and the process used to obtain it	**Basic Operations & Applications:** Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour) Solve word problems containing several rates, proportions, or percentages

TABLE 2C

NORTH DAKOTA Grades 9–10 Mathematics Content Standards	PLAN Mathematics College Readiness Standards
Standard 1: Number and Operation	
9–10.1.11. Add, subtract, and perform scalar multiplication on matrices	**Probability, Statistics, & Data Analysis:** Perform a single computation using information from a table or chart Perform computations on data from tables and graphs Manipulate data from tables and graphs Interpret and use information from figures, tables, and graphs

TABLE 2C

NORTH DAKOTA Grades 9–10 Mathematics Content Standards	PLAN Mathematics College Readiness Standards
Standard 2: Geometry and Spatial Sense Students understand and apply geometric concepts and spatial relationships to represent and solve problems in mathematical and nonmathematical situations.	
TWO- AND THREE-DIMENSIONAL SHAPES, GEOMETRIC PROPERTIES AND RELATIONSHIPS	
9–10.2.1. Identify the properties and attributes of two- and three-dimensional objects that distinguish one from another, e.g., a cylinder has two parallel circular bases	**Properties of Plane Figures:** Exhibit knowledge of basic angle properties and special sums of angle measures (e.g., 90°, 180°, and 360°) Use properties of isosceles triangles Apply properties of 30°-60°-90°, 45°-45°-90°, similar, and congruent triangles
9–10.2.2. Determine congruence and similarity among geometric objects	**Properties of Plane Figures:** Apply properties of 30°-60°-90°, 45°-45°-90°, similar, and congruent triangles
9–10.2.3. Use trigonometric relationships and the Pythagorean Theorem to determine side lengths and angle measures in right triangles	**Properties of Plane Figures:** Use several angle properties to find an unknown angle measure Recognize Pythagorean triples Use the Pythagorean theorem
9–10.2.4. Using given information, establish the validity of a conjecture using a two-column or paragraph proof	
COORDINATE GEOMETRY	
9–10.2.5. Use Cartesian coordinates to determine distance, midpoint, and slope	**Graphical Representations:** Exhibit knowledge of slope Determine the slope of a line from points or equations Find the midpoint of a line segment Use the distance formula
9–10.2.6. Use distance, midpoint, and slope to determine relationships between points, lines, and plane figures in the Cartesian coordinate system, e.g., determine whether a triangle is scalene, isosceles, or equilateral given the coordinates of its vertices	**Graphical Representations:** Exhibit knowledge of slope Determine the slope of a line from points or equations Find the midpoint of a line segment Use the distance formula
TRANSFORMATION AND SYMMETRY	
9–10.2.7. Identify and perform transformations of objects in the plane using sketches (translations, reflections, rotations, and dilations) and coordinates (translations, reflections, and dilations)	
9–10.2.8. Describe the effects of combining basic transformations in a plane, e.g., two reflections over parallel lines results in a translation	

TABLE 2C

NORTH DAKOTA Grades 9–10 Mathematics Content Standards	PLAN Mathematics College Readiness Standards
Standard 2: Geometry and Spatial Sense	
VISUALIZATION, SPATIAL REASONING, AND GEOMETRIC MODELING	
9–10.2.9. Construct plane figures using traditional and/or technological tools, i.e., congruent segments, congruent angles, angle and segment bisectors, perpendicular and parallel lines	**Properties of Plane Figures:** Exhibit some knowledge of the angles associated with parallel lines Find the measure of an angle using properties of parallel lines Use several angle properties to find an unknown angle measure Apply properties of 30°-60°-90°, 45°-45°-90°, similar, and congruent triangles Use the Pythagorean theorem
9–10.2.10. Recognize images of the same object shown from different perspectives, i.e., a two-dimensional image of a three-dimensional object	
9–10.2.11. Use geometric models to find solutions to problems in mathematics and other disciplines, e.g., art and architecture	**Properties of Plane Figures:** Find the measure of an angle using properties of parallel lines Use several angle properties to find an unknown angle measure Apply properties of 30°-60°-90°, 45°-45°-90°, similar, and congruent triangles Use the Pythagorean theorem **Measurement:** Estimate or calculate the length of a line segment based on other lengths given on a geometric figure Compute the perimeter of polygons when all side lengths are given Compute the area of rectangles when whole number dimensions are given Compute the area and perimeter of triangles and rectangles in simple problems Use geometric formulas when all necessary information is given Compute the area of triangles and rectangles when one or more additional simple steps are required Compute the area and circumference of circles after identifying necessary information Compute the perimeter of simple composite geometric figures with unknown side lengths Use relationships involving area, perimeter, and volume of geometric figures to compute another measure

TABLE 2C

NORTH DAKOTA Grades 9–10 Mathematics Content Standards	PLAN Mathematics College Readiness Standards
Standard 3: Data Analysis, Statistics, and Probability Students use data collection and analysis techniques, statistical methods, and probability to solve problems.	
DATA COLLECTION, DISPLAY, AND INTERPRETATION	
9–10.3.1. Construct appropriate displays of given data, i.e., circle graphs, bar graphs, histograms, stem-and-leaf plots, box-and-whisker plots, and scatter plots	**Probability, Statistics, & Data Analysis:** Read tables and graphs Perform computations on data from tables and graphs Translate from one representation of data to another (e.g., a bar graph to a circle graph) Manipulate data from tables and graphs Interpret and use information from figures, tables, and graphs
9–10.3.2. Interpret a given visual representation (i.e., circle graphs, bar graphs, histograms, stem-and-leaf plots, box-and-whisker plots, and scatter plots) of a set of data	**Probability, Statistics, & Data Analysis:** Read tables and graphs Interpret and use information from figures, tables, and graphs
9–10.3.3. Identify the variable, sample, and population in a well-designed study, e.g., in an exit poll for a tax increase, the variable is the outcome of the vote, the sample is the set of people surveyed, the population is the set of all voters	
PROBABILITY	
9–10.3.4. Determine the number of possible outcomes for a given event, using appropriate counting techniques, e.g., fundamental counting principle, factorials, combinations, permutations	**Probability, Statistics, & Data Analysis:** Exhibit knowledge of simple counting techniques Apply counting techniques
9–10.3.5. Calculate experimental and theoretical probabilities with and without replacement	**Probability, Statistics, & Data Analysis:** Use the relationship between the probability of an event and the probability of its complement Determine the probability of a simple event Compute straightforward probabilities for common situations Compute a probability when the event and/or sample space are not given or obvious
9–10.3.6. Calculate probabilities of compound events using addition and multiplication rules	**Probability, Statistics, & Data Analysis:** Apply counting techniques
STATISTICAL METHODS	
9–10.3.7. Calculate measures of central tendency and spread, i.e., mean, median, mode, range, and quartiles	**Probability, Statistics, & Data Analysis:** Calculate the average of a list of positive whole numbers Calculate the average of a list of numbers Calculate the average, given the number of data values and the sum of the data values Calculate the missing data value, given the average and all data values but one Calculate the average, given the frequency counts of all the data values Calculate or use a weighted average

TABLE 2C

NORTH DAKOTA Grades 9–10 Mathematics Content Standards	PLAN Mathematics College Readiness Standards
Standard 3: Data Analysis, Statistics, and Probability	
9–10.3.8. Discuss relationships among measures of central tendency and spread, i.e., mean, median, mode, range, and quartiles	**Probability, Statistics, & Data Analysis:** Calculate or use a weighted average
PREDICTIONS, DATA ANALYSIS, AND INFERENCES	
9–10.3.9. Select two points and approximate an equation for the line of best fit (if appropriate) for a set of data	**Graphical Representations:** Locate points on the number line and in the first quadrant Locate points in the coordinate plane Match linear graphs with their equations Interpret and use information from graphs in the coordinate plane
9–10.3.10. Identify the trend of a set of data and estimate the strength of the correlation between two variables, e.g., strong vs. weak, positive vs. negative	**Probability, Statistics, & Data Analysis:** Read tables and graphs Manipulate data from tables and graphs Interpret and use information from figures, tables, and graphs

TABLE 2C

NORTH DAKOTA Grades 9–10 Mathematics Content Standards	PLAN Mathematics College Readiness Standards
Standard 4: Measurement Students use concepts and tools of measurement to describe and quantify the world.	
MEASURABLE ATTRIBUTES, MEASUREMENT SYSTEMS AND UNITS	
9–10.4.1. Select appropriate units and scales for problem situations involving measurement	**Basic Operations & Applications:** Perform common conversions (e.g., inches to feet or hours to minutes)
9–10.4.2. Describe the effects of scalar change on the area and volume of a figure, e.g., the effect of doubling one or more edges of a solid on its surface area and volume	**Measurement:** Compute the area and perimeter of triangles and rectangles in simple problems Compute the area of triangles and rectangles when one or more additional simple steps are required Use relationships involving area, perimeter, and volume of geometric figures to compute another measure
9–10.4.3. Use approximations to compare the standard and metric systems of measurement, e.g., a five-kilometer race is about three miles long	**Basic Operations & Applications:** Perform common conversions (e.g., inches to feet or hours to minutes) Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour)
9–10.4.4. Given a conversion factor, convert between standard and metric measurements	**Basic Operations & Applications:** Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Perform common conversions (e.g., inches to feet or hours to minutes) Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour)
MEASUREMENT TOOLS, TECHNIQUES, AND FORMULAS	
9–10.4.5. Use methods necessary to achieve a specified degree of precision and accuracy (i.e., appropriate number of significant digits) in measurement situations	**Basic Operations & Applications:** Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Perform common conversions (e.g., inches to feet or hours to minutes) Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems

TABLE 2C

NORTH DAKOTA Grades 9–10 Mathematics Content Standards	PLAN Mathematics College Readiness Standards
Standard 4: Measurement	
	Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour) Solve word problems containing several rates, proportions, or percentages
9–10.4.6. Employ estimation techniques to evaluate reasonableness of results in measurement situations	**Basic Operations & Applications:** Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems **Measurement:** Estimate or calculate the length of a line segment based on other lengths given on a geometric figure
9–10.4.7. Use unit analysis to track units during computations	**Basic Operations & Applications:** Perform common conversions (e.g., inches to feet or hours to minutes) Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour)
9–10.4.8. Given a formula list, compute the area of a regular polygon	**Expressions, Equations, & Inequalities:** Substitute whole numbers for unknown quantities to evaluate expressions Evaluate algebraic expressions by substituting integers for unknown quantities **Measurement:** Compute the area of rectangles when whole number dimensions are given Compute the area and perimeter of triangles and rectangles in simple problems Use geometric formulas when all necessary information is given Compute the area of triangles and rectangles when one or more additional simple steps are required Compute the area and circumference of circles after identifying necessary information Use relationships involving area, perimeter, and volume of geometric figures to compute another measure

TABLE 2C

NORTH DAKOTA Grades 9–10 Mathematics Content Standards	PLAN Mathematics College Readiness Standards
Standard 4: Measurement	
9–10.4.9. Given a formula list, compute the surface area and volume of a right prism, right cylinder, right pyramid, right cone, and sphere	**Expressions, Equations, & Inequalities:** Substitute whole numbers for unknown quantities to evaluate expressions Evaluate algebraic expressions by substituting integers for unknown quantities **Measurement:** Compute the area of rectangles when whole number dimensions are given Compute the area and perimeter of triangles and rectangles in simple problems Use geometric formulas when all necessary information is given Compute the area of triangles and rectangles when one or more additional simple steps are required Compute the area and circumference of circles after identifying necessary information Use relationships involving area, perimeter, and volume of geometric figures to compute another measure
9–10.4.10. Apply indirect measurement techniques to solve problems involving irregular shapes or inaccessible objects, e.g., calculate the distance across a lake, triangulate an irregular region to find its approximate area	**Properties of Plane Figures:** Exhibit knowledge of basic angle properties and special sums of angle measures (e.g., 90°, 180°, and 360°) Use the Pythagorean theorem **Measurement:** Compute the area of rectangles when whole number dimensions are given Compute the area and perimeter of triangles and rectangles in simple problems Compute the area of triangles and rectangles when one or more additional simple steps are required Use relationships involving area, perimeter, and volume of geometric figures to compute another measure

TABLE 2C

NORTH DAKOTA Grades 9–10 Mathematics Content Standards	PLAN Mathematics College Readiness Standards
Standard 5: Algebra, Functions, and Patterns Students use algebraic concepts, functions, patterns, and relationships to solve problems.	
PATTERNS, RELATIONS, AND FUNCTIONS	
9–10.5.1. Given the explicit and/or the recursive definition of a sequence, generate a specific term (explicit formula only) or a specified number of terms	**Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor **Expressions, Equations, & Inequalities:** Substitute whole numbers for unknown quantities to evaluate expressions Evaluate algebraic expressions by substituting integers for unknown quantities
9–10.5.2. Express relations and functions using a variety of representations, i.e., numeric, graphic, symbolic, and verbal	**Probability, Statistics, & Data Analysis:** Read tables and graphs Perform computations on data from tables and graphs Translate from one representation of data to another (e.g., a bar graph to a circle graph) Manipulate data from tables and graphs Interpret and use information from figures, tables, and graphs **Expressions, Equations, & Inequalities:** Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions) Write expressions, equations, and inequalities for common algebra settings **Graphical Representations:** Locate points on the number line and in the first quadrant Locate points in the coordinate plane Interpret and use information from graphs in the coordinate plane
9–10.5.3. Determine whether a relation is a function by examining various representations of the relation, e.g., table, graph, equation, set of ordered pairs	**Probability, Statistics, & Data Analysis:** Read tables and graphs Perform computations on data from tables and graphs Translate from one representation of data to another (e.g., a bar graph to a circle graph) Manipulate data from tables and graphs Interpret and use information from figures, tables, and graphs **Graphical Representations:** Interpret and use information from graphs in the coordinate plane

TABLE 2C

NORTH DAKOTA Grades 9–10 Mathematics Content Standards	PLAN Mathematics College Readiness Standards
Standard 5: Algebra, Functions, and Patterns	
9–10.5.4. Perform the operations of addition, subtraction, multiplication, and division on algebraic functions, e.g., given f(x) = 2x and g(x) = 5x – 7, find f(x) + g(x)	**Expressions, Equations, & Inequalities:** Combine like terms (e.g., 2*x* + 5*x*) Add and subtract simple algebraic expressions Multiply two binomials Add, subtract, and multiply polynomials Manipulate expressions and equations
9–10.5.5. Identify the independent variable, dependent variable, domain, and range of a function	**Graphical Representations:** Interpret and use information from graphs in the coordinate plane
9–10.5.6. Draw graphs of linear and quadratic functions using paper and pencil, labeling key features, e.g., graph a line and label its x-intercept and y-intercept, graph a parabola and label its vertex and one point on each side of the vertex	**Graphical Representations:** Locate points on the number line and in the first quadrant Locate points in the coordinate plane Interpret and use information from graphs in the coordinate plane
NUMERIC AND ALGEBRAIC REPRESENTATIONS	
9–10.5.7. Develop algebraic expressions, equations, or inequalities involving one or two variables to represent relationships (e.g., given a verbal statement, write an equivalent algebraic expression or equation) found in various contexts (e.g., time and distance problems, mixture problems)	**Expressions, Equations, & Inequalities:** Perform straightforward word-to-symbol translations Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions) Write expressions, equations, and inequalities for common algebra settings
9–10.5.8. Manipulate algebraic expressions and equations using properties of real numbers, e.g., simplify, factor	**Numbers: Concepts & Properties:** Recognize one-digit factors of a number Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor Work with numerical factors Apply number properties involving even/odd numbers and factors/multiples **Expressions, Equations, & Inequalities:** Combine like terms (e.g., 2*x* + 5*x*) Add and subtract simple algebraic expressions Multiply two binomials Add, subtract, and multiply polynomials Factor simple quadratics (e.g., the difference of squares and perfect square trinomials)

TABLE 2C

NORTH DAKOTA Grades 9–10 Mathematics Content Standards	PLAN Mathematics College Readiness Standards
Standard 5: Algebra, Functions, and Patterns	
9–10.5.9. Solve linear equations and inequalities, systems of two linear equations or inequalities, and quadratic equations having rational solutions, e.g., factoring, quadratic formula	**Expressions, Equations, & Inequalities:** Solve equations in the form $x + a = b$, where a and b are whole numbers or decimals Solve one-step equations having integer or decimal answers Solve routine first-degree equations Solve real-world problems using first-degree equations Identify solutions to simple quadratic equations Solve first-degree inequalities that do not require reversing the inequality sign Solve linear inequalities that require reversing the inequality sign Solve quadratic equations Find solutions to systems of linear equations
9–10.5.10. Solve a literal equation for a specified variable, e.g., solve I = prt for r, or solve 7n + p = t for n	**Expressions, Equations, & Inequalities:** Manipulate expressions and equations
MATHEMATICAL MODELING	
9–10.5.11. Use essential quantitative relationships in a situation to determine whether the relationship can be modeled by a linear function, e.g., simple interest is linear, compound interest is not linear	**Probability, Statistics, & Data Analysis:** Read tables and graphs Perform computations on data from tables and graphs Translate from one representation of data to another (e.g., a bar graph to a circle graph) Manipulate data from tables and graphs Interpret and use information from figures, tables, and graphs **Expressions, Equations, & Inequalities:** Solve routine first-degree equations Perform straightforward word-to-symbol translations Solve real-world problems using first-degree equations Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions) Manipulate expressions and equations Write expressions, equations, and inequalities for common algebra settings
9–10.5.12. Graphically represent the solution or solutions to an equation, inequality, or system	**Graphical Representations:** Identify the location of a point with a positive coordinate on the number line Locate points on the number line and in the first quadrant Locate points in the coordinate plane Comprehend the concept of length on the number line Identify the graph of a linear inequality on the number line Match number line graphs with solution sets of linear inequalities

TABLE 2C

NORTH DAKOTA Grades 9–10 Mathematics Content Standards	PLAN Mathematics College Readiness Standards
Standard 5: Algebra, Functions, and Patterns	
9–10.5.13. Interpret a graphical representation of a real-world situation	**Graphical Representations:** Locate points on the number line and in the first quadrant Locate points in the coordinate plane Interpret and use information from graphs in the coordinate plane
9–10.5.14. Draw conclusions about a situation being modeled	**Graphical Representations:** Interpret and use information from graphs in the coordinate plane
RATES OF CHANGE	
9–10.5.15. Approximate and interpret rates of change from graphical and numerical data	**Graphical Representations:** Locate points on the number line and in the first quadrant Locate points in the coordinate plane Exhibit knowledge of slope Determine the slope of a line from points or equations Interpret and use information from graphs in the coordinate plane

TABLE 2D

NORTH DAKOTA Grades 11–12 Mathematics Content Standards	ACT Mathematics College Readiness Standards
Standard 1: Number and Operation Students understand and use basic and advanced concepts of number and number systems.	
NUMBERS, NUMBER RELATIONSHIPS, AND NUMBER SYSTEMS	
11–12.1.1. Translate between radical expressions and expressions involving rational exponents	**Numbers: Concepts & Properties:** Work with squares and square roots of numbers Work problems involving positive integer exponents Apply rules of exponents Draw conclusions based on number concepts, algebraic properties, and/or relationships between expressions and numbers
11–12.1.2. Describe the hierarchal relationships (e.g., explain why real numbers are complex) among subsets of the complex number system, i.e., complex, real, and imaginary	**Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor Exhibit some knowledge of the complex numbers Apply properties of complex numbers
11–12.1.3. Use imaginary numbers to express square roots of negative numbers	**Numbers: Concepts & Properties:** Exhibit some knowledge of the complex numbers Apply properties of complex numbers
11–12.1.4. Justify the steps of an algebraic process using the properties of the real number system, e.g., write an algebraic proof	**Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor
OPERATIONS AND THEIR PROPERTIES	
11–12.1.5. Determine which properties of the real number system hold for matrices, e.g., matrix multiplication is not commutative	**Numbers: Concepts & Properties:** Draw conclusions based on number concepts, algebraic properties, and/or relationships between expressions and numbers
11–12.1.6. Apply basic properties of exponents and logarithms to rewrite algebraic expressions, i.e., power of a product, power of a power, products and quotients of powers, zero and negative exponents, and log of a product, quotient, or power	**Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor Work with squares and square roots of numbers Work problems involving positive integer exponents Work with cubes and cube roots of numbers Apply rules of exponents Draw conclusions based on number concepts, algebraic properties, and/or relationships between expressions and numbers
COMPUTATIONAL FLUENCY AND ESTIMATION	
11–12.1.7. Add, subtract, and multiply complex numbers	**Numbers: Concepts & Properties:** Exhibit some knowledge of the complex numbers Multiply two complex numbers Apply properties of complex numbers

TABLE 2D

NORTH DAKOTA Grades 11–12 Mathematics Content Standards	ACT Mathematics College Readiness Standards
Standard 1: Number and Operation	
11–12.1.8. Multiply matrices containing no more than three rows or columns without the use of technology	**Numbers: Concepts & Properties:** Draw conclusions based on number concepts, algebraic properties, and/or relationships between expressions and numbers

TABLE 2D

NORTH DAKOTA Grades 11–12 Mathematics Content Standards	ACT Mathematics College Readiness Standards
Standard 2: Geometry and Spatial Sense Students understand and apply geometric concepts and spatial relationships to represent and solve problems in mathematical and nonmathematical situations.	
TWO- AND THREE-DIMENSIONAL SHAPES, GEOMETRIC PROPERTIES AND RELATIONSHIPS	
11–12.2.1. Use trigonometric relationships to determine side lengths and angle measures in triangles, i.e., right triangle trigonometry, Law of Sines, and Law of Cosines	**Functions:** Express the sine, cosine, and tangent of an angle in a right triangle as a ratio of given side lengths Apply basic trigonometric ratios to solve right-triangle problems Use trigonometric concepts and basic identities to solve problems
COORDINATE GEOMETRY	
No benchmark expectations at this level	
TRANSFORMATION AND SYMMETRY	
No benchmark expectations at this level	
VISUALIZATION, SPATIAL REASONING, AND GEOMETRIC MODELING	
No benchmark expectations at this level	

TABLE 2D

NORTH DAKOTA Grades 11–12 Mathematics Content Standards	ACT Mathematics College Readiness Standards
Standard 3: Data Analysis, Statistics, and Probability Students use data collection and analysis techniques, statistical methods, and probability to solve problems.	
DATA COLLECTION, DISPLAY, AND INTERPRETATION	
11–12.3.1. Choose, construct, and interpret a display to represent a set of data	**Probability, Statistics, & Data Analysis:** Perform a single computation using information from a table or chart Read tables and graphs Perform computations on data from tables and graphs Translate from one representation of data to another (e.g., a bar graph to a circle graph) Manipulate data from tables and graphs Interpret and use information from figures, tables, and graphs Analyze and draw conclusions based on information from figures, tables, and graphs
PROBABILITY	
11–12.3.2. Make predictions based on theoretical probabilities and experimental results	**Probability, Statistics, & Data Analysis:** Use the relationship between the probability of an event and the probability of its complement Determine the probability of a simple event Exhibit knowledge of simple counting techniques Compute straightforward probabilities for common situations Apply counting techniques Compute a probability when the event and/or sample space are not given or obvious Exhibit knowledge of conditional and joint probability
STATISTICAL METHODS	
11–12.3.3. Select, calculate, and use appropriate measures of central tendency and spread (i.e., mean, median, mode, range, and quartiles) to draw meaningful conclusions about a set of data	**Probability, Statistics, & Data Analysis:** Calculate the average of a list of positive whole numbers Calculate the average of a list of numbers Calculate the average, given the number of data values and the sum of the data values Calculate the missing data value, given the average and all data values but one Calculate the average, given the frequency counts of all the data values Calculate or use a weighted average Distinguish between mean, median, and mode for a list of numbers

TABLE 2D

NORTH DAKOTA Grades 11–12 Mathematics Content Standards	ACT Mathematics College Readiness Standards
Standard 3: Data Analysis, Statistics, and Probability	
PREDICTIONS, DATA ANALYSIS, AND INFERENCES	
11–12.3.4. Given a set of data exhibiting a linear trend, approximate an equation for the line of best fit (with or without technology) and use that model to make predictions	**Probability, Statistics, & Data Analysis:** Perform a single computation using information from a table or chart Read tables and graphs Perform computations on data from tables and graphs Manipulate data from tables and graphs Interpret and use information from figures, tables, and graphs Analyze and draw conclusions based on information from figures, tables, and graphs **Expressions, Equations, & Inequalities:** Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions) Write expressions, equations, and inequalities for common algebra settings Write expressions that require planning and/or manipulating to accurately model a situation Write equations and inequalities that require planning, manipulating, and/or solving **Graphical Representations:** Exhibit knowledge of slope Determine the slope of a line from points or equations Interpret and use information from graphs in the coordinate plane Solve problems integrating multiple algebraic and/or geometric concepts Analyze and draw conclusions based on information from graphs in the coordinate plane

TABLE 2D

NORTH DAKOTA Grades 11–12 Mathematics Content Standards	ACT Mathematics College Readiness Standards
Standard 4: Measurement Students use concepts and tools of measurement to describe and quantify the world.	
MEASURABLE ATTRIBUTES, MEASUREMENT SYSTEMS AND UNITS	
No benchmark expectations at this level	
MEASUREMENT TOOLS, TECHNIQUES, AND FORMULAS	
No benchmark expectations at this level	

TABLE 2D

NORTH DAKOTA Grades 11–12 Mathematics Content Standards	ACT Mathematics College Readiness Standards
Standard 5: Algebra, Functions, and Patterns Students use algebraic concepts, functions, patterns, and relationships to solve problems.	
PATTERNS, RELATIONS, AND FUNCTIONS	
11–12.5.1. Perform advanced operations (i.e., composition and finding inverses) on algebraic functions	**Expressions, Equations, & Inequalities:** Multiply two binomials Add, subtract, and multiply polynomials Manipulate expressions and equations Write expressions that require planning and/or manipulating to accurately model a situation Write equations and inequalities that require planning, manipulating, and/or solving **Functions:** Write an expression for the composite of two simple functions
11–12.5.2. Generate graphs of a variety of functions (i.e., linear, quadratic, polynomial, absolute value, and exponential), using technology when appropriate	**Graphical Representations:** Interpret and use information from graphs in the coordinate plane Recognize special characteristics of parabolas and circles (e.g., the vertex of a parabola and the center or radius of a circle) Identify characteristics of graphs based on a set of conditions or on a general equation such as $y = ax^2 + c$ Solve problems integrating multiple algebraic and/or geometric concepts Analyze and draw conclusions based on information from graphs in the coordinate plane
NUMERIC AND ALGEBRAIC REPRESENTATIONS	
11–12.5.3. Solve quadratic equations involving complex roots	**Numbers: Concepts & Properties:** Exhibit some knowledge of the complex numbers Apply properties of complex numbers **Expressions, Equations, & Inequalities:** Solve quadratic equations Write expressions that require planning and/or manipulating to accurately model a situation Write equations and inequalities that require planning, manipulating, and/or solving

TABLE 2D

NORTH DAKOTA Grades 11–12 Mathematics Content Standards	ACT Mathematics College Readiness Standards
Standard 5: Algebra, Functions, and Patterns	
11–12.5.4. Use transformations (i.e., reflection, translation, dilation) to graph linear, quadratic, and absolute value functions	**Graphical Representations:** Interpret and use information from graphs in the coordinate plane Recognize special characteristics of parabolas and circles (e.g., the vertex of a parabola and the center or radius of a circle) Identify characteristics of graphs based on a set of conditions or on a general equation such as $y = ax^2 + c$ Solve problems integrating multiple algebraic and/or geometric concepts Analyze and draw conclusions based on information from graphs in the coordinate plane
11–12.5.5. Given the graph of a transformed linear, quadratic, or absolute value function, write its equation	**Probability, Statistics, & Data Analysis:** Analyze and draw conclusions based on information from figures, tables, and graphs **Expressions, Equations, & Inequalities:** Write expressions that require planning and/or manipulating to accurately model a situation Write equations and inequalities that require planning, manipulating, and/or solving **Graphical Representations:** Interpret and use information from graphs in the coordinate plane Recognize special characteristics of parabolas and circles (e.g., the vertex of a parabola and the center or radius of a circle) Identify characteristics of graphs based on a set of conditions or on a general equation such as $y = ax^2 + c$ Solve problems integrating multiple algebraic and/or geometric concepts Analyze and draw conclusions based on information from graphs in the coordinate plane
MATHEMATICAL MODELING	
11–12.5.6. Determine and write an equation for a function (i.e., linear, quadratic, polynomial, absolute value, and exponential) that models a mathematical relationship	**Expressions, Equations, & Inequalities:** Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions) Write expressions, equations, and inequalities for common algebra settings Write expressions that require planning and/or manipulating to accurately model a situation Write equations and inequalities that require planning, manipulating, and/or solving
RATES OF CHANGE	
No benchmark expectations at this level	

TABLE 2E

NORTH DAKOTA Grades 11–12 Mathematics Content Standards	WorkKeys Applied Mathematics Skills
Standard 1: Number and Operation	
Students understand and use basic and advanced concepts of number and number systems.	WorkKeys Applied Mathematicsmeasures the skill people use when they apply mathematical reasoning, critical thinking, and problem-solving techniques to work-related problems.
NUMBERS, NUMBER RELATIONSHIPS, AND NUMBER SYSTEMS	
11–12.1.1. Translate between radical expressions and expressions involving rational exponents	
11–12.1.2. Describe the hierarchal relationships (e.g., explain why real numbers are complex) among subsets of the complex number system, i.e., complex, real, and imaginary	
11–12.1.3. Use imaginary numbers to express square roots of negative numbers	
11–12.1.4. Justify the steps of an algebraic process using the properties of the real number system, e.g., write an algebraic proof	Solve problems that include nonlinear functions and/or that involve more than one unknown
OPERATIONS AND THEIR PROPERTIES	
11–12.1.5. Determine which properties of the real number system hold for matrices, e.g., matrix multiplication is not commutative	
11–12.1.6. Apply basic properties of exponents and logarithms to rewrite algebraic expressions, i.e., power of a product, power of a power, products and quotients of powers, zero and negative exponents, and log of a product, quotient, or power	
COMPUTATIONAL FLUENCY AND ESTIMATION	
11–12.1.7. Add, subtract, and multiply complex numbers	
11–12.1.8. Multiply matrices containing no more than three rows or columns without the use of technology	

TABLE 2E

NORTH DAKOTA Grades 11–12 Mathematics Content Standards	WorkKeys Applied Mathematics Skills
Standard 2: Geometry and Spatial Sense	
Students understand and apply geometric concepts and spatial relationships to represent and solve problems in mathematical and nonmathematical situations.	Find areas of basic shapes when it may be necessary to rearrange the formula, convert units of measurement in the calculations, or use the result in further calculations Find the volume of rectangular solids Calculate multiple areas and volumes of spheres, cylinders, or cones
TWO- AND THREE-DIMENSIONAL SHAPES, GEOMETRIC PROPERTIES AND RELATIONSHIPS	
11–12.2.1. Use trigonometric relationships to determine side lengths and angle measures in triangles, i.e., right triangle trigonometry, Law of Sines, and Law of Cosines	
COORDINATE GEOMETRY	
No benchmark expectations at this level	
TRANSFORMATION AND SYMMETRY	
No benchmark expectations at this level	
VISUALIZATION, SPATIAL REASONING, AND GEOMETRIC MODELING	
No benchmark expectations at this level	

TABLE 2E

NORTH DAKOTA Grades 11–12 Mathematics Content Standards	WorkKeys Applied Mathematics Skills
Standard 3: Data Analysis, Statistics, and Probability Students use data collection and analysis techniques, statistical methods, and probability to solve problems.	
DATA COLLECTION, DISPLAY, AND INTERPRETATION	
11–12.3.1. Choose, construct, and interpret a display to represent a set of data	
PROBABILITY	
11–12.3.2. Make predictions based on theoretical probabilities and experimental results	
STATISTICAL METHODS	
11–12.3.3. Select, calculate, and use appropriate measures of central tendency and spread (i.e., mean, median, mode, range, and quartiles) to draw meaningful conclusions about a set of data	Apply basic statistical concepts
PREDICTIONS, DATA ANALYSIS, AND INFERENCES	
11–12.3.4. Given a set of data exhibiting a linear trend, approximate an equation for the line of best fit (with or without technology) and use that model to make predictions	

TABLE 2E

NORTH DAKOTA Grades 11–12 Mathematics Content Standards	WorkKeys Applied Mathematics Skills
Standard 4: Measurement Students use concepts and tools of measurement to describe and quantify the world.	Look up a formula and perform single-step conversions within or between systems of measurement Convert between systems of measurement that involve fractions, mixed numbers, decimals, and/or percentages
MEASURABLE ATTRIBUTES, MEASUREMENT SYSTEMS AND UNITS	
No benchmark expectations at this level	
MEASUREMENT TOOLS, TECHNIQUES, AND FORMULAS	
No benchmark expectations at this level	

TABLE 2E

NORTH DAKOTA Grades 11–12 Mathematics Content Standards	WorkKeys Applied Mathematics Skills
Standard 5: Algebra, Functions, and Patterns Students use algebraic concepts, functions, patterns, and relationships to solve problems.	
PATTERNS, RELATIONS, AND FUNCTIONS	
11–12.5.1. Perform advanced operations (i.e., composition and finding inverses) on algebraic functions	Solve problems that include nonlinear functions and/or that involve more than one unknown
11–12.5.2. Generate graphs of a variety of functions (i.e., linear, quadratic, polynomial, absolute value, and exponential), using technology when appropriate	
NUMERIC AND ALGEBRAIC REPRESENTATIONS	
11–12.5.3. Solve quadratic equations involving complex roots	
11–12.5.4. Use transformations (i.e., reflection, translation, dilation) to graph linear, quadratic, and absolute value functions	
11–12.5.5. Given the graph of a transformed linear, quadratic, or absolute value function, write its equation	
MATHEMATICAL MODELING	
11–12.5.6. Determine and write an equation for a function (i.e., linear, quadratic, polynomial, absolute value, and exponential) that models a mathematical relationship	Solve problems that include nonlinear functions and/or that involve more than one unknown
RATES OF CHANGE	
No benchmark expectations at this level	

SUPPLEMENT
TABLES 3A–3E:

SCIENCE

TABLE 3A

NORTH DAKOTA Grade 8 Science Content Standards	EXPLORE Science College Readiness Standards
Standard 1: Unifying Concepts Students understand the unifying concepts and processes of science.	
MODELS	
No benchmark expectations at this level	
SYSTEMS	
8.1.1. Organize changes (e.g., patterns, cycles) that occur sequentially in systems	
CONSTANCY AND CHANGE	
No benchmark expectations at this level	
FORM AND FUNCTION	
No benchmark expectations at this level	

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TABLE 3A

NORTH DAKOTA Grade 8 Science Content Standards	EXPLORE Science College Readiness Standards
Standard 2: Science Inquiry Students use the process of science inquiry.	
UNDERSTANDINGS ABOUT SCIENTIFIC INQUIRY	
8.2.1. Explain how science advances through legitimate skepticism	
ABILITIES NECESSARY TO DO SCIENTIFIC INQUIRY	
8.2.2. Use evidence to generate descriptions, explanations, predictions, and models	**Interpretation of Data:** Select a single piece of data (numerical or nonnumerical) from a simple data presentation (e.g., a table or graph with two or three variables; a food web diagram) Identify basic features of a table, graph, or diagram (e.g., headings, units of measurement, axis labels) Select two or more pieces of data from a simple data presentation Understand basic scientific terminology Find basic information in a brief body of text Determine how the value of one variable changes as the value of another variable changes in a simple data presentation Compare or combine data from a simple data presentation (e.g., order or sum data from a table) Translate information into a table, graph, or diagram **Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Identify key issues or assumptions in a model Select a simple hypothesis, prediction, or conclusion that is supported by two or more data presentations or models Determine whether given information supports or contradicts a simple hypothesis or conclusion, and why Identify strengths and weaknesses in one or more models Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion
8.2.3. Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data	**Interpretation of Data:** Determine how the value of one variable changes as the value of another variable changes in a simple data presentation Interpolate between data points in a table or graph Identify and/or use a simple (e.g., linear) mathematical relationship between data

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TABLE 3A

NORTH DAKOTA Grade 8 Science Content Standards	EXPLORE Science College Readiness Standards
Standard 2: Science Inquiry	
8.2.4. Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)	**Scientific Investigation:** Understand the methods and tools used in a simple experiment Understand a simple experimental design Identify a control in an experiment Determine the experimental conditions that would produce specified results

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TABLE 3A

NORTH DAKOTA Grade 8 Science Content Standards	EXPLORE Science College Readiness Standards
Standard 3: Physical Science Students understand the basic concepts and principles of physical science.	
PROPERTIES OF MATTER	
8.3.1. Identify elements and compounds	
8.3.2. Explain the relationship between phases of matter and temperature	
FORCE AND MOTION	
8.3.3. Interpret the effect of balanced and unbalanced forces on the motion of an object (e.g., convection currents, orbital motion, tides)	
8.3.4. Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects	
ENERGY TRANSFER AND TRANSFORMATION	
8.3.5. Identify when heat can be transferred by conduction, convection, or radiation	
VIBRATIONS AND WAVES	
8.3.6. Explain the characteristic properties (e.g., wavelength, frequency) and behaviors (e.g., reflection, refraction) of waves	

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TABLE 3A

NORTH DAKOTA Grade 8 Science Content Standards	EXPLORE Science College Readiness Standards
Standard 4: Life Science Students understand the basic concepts and principles of life science.	
STRUCTURE AND FUNCTION	
No benchmark expectations at this level	
GENETICS AND REPRODUCTION	
No benchmark expectations at this level	
INTERDEPENDENCE AMONG ORGANISMS	
No benchmark expectations at this level	
DIVERSITY AND UNITY AMONG ORGANISMS	
No benchmark expectations at this level	
NATURAL SELECTION AND BIOLOGICAL EVOLUTION	
8.4.1. Identify the evidence of biological evolution (e.g., adaptation, radiation, extinction) as found in the fossil record	

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TABLE 3A

NORTH DAKOTA Grade 8 Science Content Standards	EXPLORE Science College Readiness Standards
Standard 5: Earth and Space Science Students understand the basic concepts and principles of earth and space science.	
WEATHER, SEASONS, AND CLIMATE	
8.5.1. Explain how factors (i.e., fronts, winds, air masses, air pressure, humidity, temperature, location) affect weather	
GEOLOGIC PROCESSES	
8.5.2. Understand the rock cycle	
8.5.3. Explain the water cycle	
8.5.4. Explain how landforms are changed (e.g., crustal deformation, volcanic eruption, deposition, weathering, erosion)	
8.5.5. Identify evidence for plate tectonics theory (e.g., fit of continents, location of earthquakes, volcanoes, mid-ocean ridge, plate boundaries)	
8.5.6. Identify a variety of methods (e.g., rock sequences, fossil correlation, radiometric dating) used to determine geologic time	
8.5.7. Explain the changes Earth has undergone over geologic time (e.g., fossil record, plate tectonics, climate change, glaciation)	
CHARACTERISTICS OF THE EARTH	
8.5.8. Explain how phenomena on Earth (i.e., day, year, seasons, lunar phases, eclipses, tides) are related to the position and motion of the Sun, Moon, and Earth	
THE UNIVERSE	
8.5.9. Identify characteristics of stars (e.g., color, size, temperature, life cycle)	
8.5.10. Identify the composition (e.g., stars, galaxies) and scale of the universe	

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TABLE 3A

NORTH DAKOTA Grade 8 Science Content Standards	EXPLORE Science College Readiness Standards
Standard 6: Science and Technology Students understand relations between science and technology.	
TECHNOLOGY AND SOCIETY	
No benchmark expectations at this level	

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TABLE 3A

NORTH DAKOTA Grade 8 Science Content Standards	EXPLORE Science College Readiness Standards
Standard 7: Science and Other Areas Students understand relations between science and personal, social, and environmental issues.	
SCIENCE AND SOCIAL ISSUES	
8.7.1. Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)	

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TABLE 3A

NORTH DAKOTA Grade 8 Science Content Standards	EXPLORE Science College Readiness Standards
Standard 8: History and Nature of Science Students understand the history and nature of science.	
PEOPLE IN SCIENCE	
No benchmark expectations at this level	
SCIENTIFIC KNOWLEDGE	
8.8.1. Explain how many people from various cultures have made important contributions to the advancement of science and technology	

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TABLE 3B

NORTH DAKOTA Grades 9–10 Science Content Standards	EXPLORE Science College Readiness Standards
Standard 1: Unifying Concepts Students understand the unifying concepts and processes of science.	
MODELS	
9–10.1.1. Explain how models can be used to illustrate scientific principles	**Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Identify key issues or assumptions in a model Determine whether given information supports or contradicts a simple hypothesis or conclusion, and why Identify strengths and weaknesses in one or more models Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion
SYSTEMS	
9–10.1.2. Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)	
CONSTANCY AND CHANGE	
9–10.1.3. Explain how a system can be dynamic yet may remain in equilibrium (e.g., water cycle, rock cycle, population)	
FORM AND FUNCTION	
9–10.1.4. Describe the relationship between form and function (e.g., solids, liquids, gases, cell specialization, simple machines, and plate tectonics)	
9–10.1.5. Explain how classification can be based on the relationship between form and function (e.g., elements and compounds, biological classifications, types of clouds)	
EVOLUTION AND EQUILIBRIUM	
9–10.1.6. Identify principles governing evolution and equilibrium within systems (e.g., cause and effect, positive and negative feedback)	

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TABLE 3B

NORTH DAKOTA Grades 9–10 Science Content Standards	EXPLORE Science College Readiness Standards
Standard 2: Science Inquiry Students use the process of science inquiry.	
UNDERSTANDINGS ABOUT SCIENTIFIC INQUIRY	
9–10.2.1. Explain how scientific investigations can result in new ideas	
ABILITIES NECESSARY TO DO SCIENTIFIC INQUIRY	
9–10.2.2. Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)	
9–10.2.3. Identify questions and concepts that guide scientific investigations	**Scientific Investigation:** Understand a simple experimental design
9–10.2.4. Formulate a testable hypothesis for a simple investigation	**Scientific Investigation:** Understand a simple experimental design
9–10.2.5. Identify the independent and dependent variables, the control, and the constants when conducting an experiment	**Scientific Investigation:** Understand the methods and tools used in a simple experiment Understand a simple experimental design Identify a control in an experiment
9–10.2.6. Design and conduct a guided investigation	**Scientific Investigation:** Understand the methods and tools used in a simple experiment Understand a simple experimental design Identify a control in an experiment
9–10.2.7. Maintain clear and accurate records of scientific investigations	

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TABLE 3B

NORTH DAKOTA Grades 9–10 Science Content Standards	EXPLORE Science College Readiness Standards
Standard 2: Science Inquiry	
9–10.2.8. Analyze data found in tables, charts, and graphs to formulate conclusions	**Interpretation of Data:** Select a single piece of data (numerical or nonnumerical) from a simple data presentation (e.g., a table or graph with two or three variables; a food web diagram) Identify basic features of a table, graph, or diagram (e.g., headings, units of measurement, axis labels) Select two or more pieces of data from a simple data presentation Understand basic scientific terminology Find basic information in a brief body of text Determine how the value of one variable changes as the value of another variable changes in a simple data presentation Compare or combine data from a simple data presentation (e.g., order or sum data from a table) Translate information into a table, graph, or diagram **Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Select a simple hypothesis, prediction, or conclusion that is supported by two or more data presentations or models

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_____ = Content sampled by EXPLORE Science Test

TABLE 3B

NORTH DAKOTA Grades 9–10 Science Content Standards	EXPLORE Science College Readiness Standards
Standard 3: Physical Science Students understand the basic concepts and principles of physical science.	
PROPERTIES OF MATTER	
9–10.3.1. Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)	
9–10.3.2. Classify changes in matter as physical or chemical	
9–10.3.3. Identify the Law of Conservation of Matter in physical and chemical changes	
ATOMS AND MOLECULES	
9–10.3.4. Construct a model of an atom (e.g., protons, neutrons, electrons, nucleus, electron cloud)	
CHEMICAL REACTIONS	
9–10.3.5. Identify the reactants and products in a chemical reaction	
9–10.3.6. Distinguish between balanced and unbalanced chemical equations	
FORCE AND MOTION	
9–10.3.7. Use Newton's Laws to describe the motion of an object	
ENERGY TRANSFER AND TRANSFORMATION	
9–10.3.8. Describe the relationships between kinetic and potential energy in basic transformations (e.g., physical and chemical changes)	
VIBRATIONS AND WAVES	
9–10.3.9. Compare and contrast electromagnetic and mechanical waves (i.e. energy, energy transfer, medium)	
ELECTRICITY AND MAGNETISM	
9–10.3.10. Describe the differences between series and parallel circuits	

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TABLE 3B

NORTH DAKOTA Grades 9–10 Science Content Standards	EXPLORE Science College Readiness Standards
Standard 4: Life Science Students understand the basic concepts and principles of life science.	
STRUCTURE AND FUNCTION	
9–10.4.1. Relate cell function to cell structure (i.e., cell wall, cell membrane, nucleus, mitochondria, chloroplast)	
9–10.4.2. Relate the functions of cells in multicellular organisms to their cell type (e.g., nerve cells, blood cells, guard cells)	
9–10.4.3. Explain the relationship between protein structure and function	
GENETICS AND REPRODUCTION	
9–10.4.4. Relate DNA, genes, and chromosomes	
9–10.4.5. Explain the relationship between spontaneous changes in DNA and a source of genetic variation	
9–10.4.6. Compare and contrast the results of mitosis and meiosis (i.e., mitosis involves a nuclear division that results in two daughter nuclei that are identical to the parent nucleus; meiosis involves two nuclear divisions that result in gametes cells containing half the number of chromosomes)	
9–10.4.7. Apply the basic concepts of genetics to predict inherited traits (i.e., segregation, independent assortment, dominant and recessive traits)	
NATURAL SELECTION AND BIOLOGICAL EVOLUTION	
9–10.4.8. Relate the concept of natural selection to its evolutionary consequences	
9–10.4.9. Identify evidence for evolution (e.g., fossil records, vestigial structures, similarities between organisms, and DNA)	
INTERDEPENDENCE AMONG ORGANISMS	
9–10.4.10. Explain the energy and organization related to trophic pyramids	
MATTER AND ENERGY IN LIVING SYSTEMS	
9–10.4.11. Explain how matter and energy flow through living and nonliving components in an ecosystem (e.g., carbon cycle, water cycle, nitrogen cycle)	
9–10.4.12. Compare and contrast photosynthesis and cellular respiration	

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TABLE 3B

NORTH DAKOTA Grades 9–10 Science Content Standards	EXPLORE Science College Readiness Standards
Standard 5: Earth and Space Science Students understand the basic concepts and principles of earth and space science.	
THE UNIVERSE	
9–10.5.1. Explain the relationship between the Big Bang Theory and the origin and evolution of the universe	
EARTH'S HISTORY	
9–10.5.2. Relate the changes in the Earth's atmosphere to the evolution of photosynthetic life forms	
ENERGY IN THE EARTH SYSTEM	
9–10.5.3. Explain how energy in the Earth system is governed by convection, conduction, and radiation (e.g., heat moves in the Earth's mantle by convection, conduction occurs along the mid-oceanic ridges, energy from the Sun reaches the Earth through radiation)	
GEOLOGIC PROCESSES, HUMAN ACTIVITIES, AND THE ENVIRONMENT	
9–10.5.4. Identify the short-term and long-term effects of physical processes (e.g., plate tectonics, extreme weather phenomenon) on the environment and society	
9–10.5.5. Analyze how evidence of past natural hazards and geologic events has predicted subsequent hazards and events (e.g. Gap time method to predict earthquakes and tsunamis)	
9–10.5.6. Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, landmanagement strategies) on the environment	

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TABLE 3B

NORTH DAKOTA Grades 9–10 Science Content Standards	EXPLORE Science College Readiness Standards
Standard 6: Science and Technology Students understand relations between science and technology.	
TECHNOLOGICAL DESIGN	
9–10.6.1. Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)	
9–10.6.2. Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)	
TECHNOLOGY AND SOCIETY	
9–10.6.3. Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment	

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_____ = Content sampled by EXPLORE Science Test

TABLE 3B

NORTH DAKOTA Grades 9–10 Science Content Standards	EXPLORE Science College Readiness Standards
Standard 7: Science and Other Areas Students understand relations between science and personal, social, and environmental issues.	
SCIENCE AND PERSONAL HEALTH	
9–10.7.1. Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition	
SCIENCE AND ENVIRONMENTAL ISSUES	
9–10.7.2. Identify factors that affect populations (e.g., food webs, carrying capacity, overpopulation, disease, food supply, algal blooms, resources, conservation practices)	
SCIENCE AND SOCIAL ISSUES	
No benchmark expectations at this level	

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_____ = Content sampled by EXPLORE Science Test

TABLE 3B

NORTH DAKOTA Grades 9–10 Science Content Standards	EXPLORE Science College Readiness Standards
Standard 8: History and Nature of Science Students understand the history and nature of science.	
PEOPLE IN SCIENCE	
9–10.8.1. Identify the role of scientists in theoretical and applied science (e.g., careers, employment possibilities)	
9–10.8.2. Identify the human characteristics that influence scientific advancement (e.g., intellectual honesty, openness, objectivity, curiosity, skepticism, ethical conduct, cooperation)	
9–10.8.3. Explain how individuals and groups, from different disciplines in and outside of science, contribute to science at different levels of complexity	
SCIENTIFIC KNOWLEDGE	
9–10.8.4. Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)	
SCIENCE AND SOCIETY	
9–10.8.5. Explain how views and attitudes have influenced the development of science (e.g., religion, previous knowledge, cultural tradition, superstition, folklore, legends)	

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____ = Content sampled by EXPLORE Science Test

TABLE 3C

NORTH DAKOTA Grades 9–10 Science Content Standards	PLAN Science College Readiness Standards
Standard 1: Unifying Concepts Students understand the unifying concepts and processes of science.	
MODELS	
9–10.1.1. Explain how models can be used to illustrate scientific principles	**Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Identify key issues or assumptions in a model Determine whether given information supports or contradicts a simple hypothesis or conclusion, and why Identify strengths and weaknesses in one or more models Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion
SYSTEMS	
9–10.1.2. Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)	
CONSTANCY AND CHANGE	
9–10.1.3. Explain how a system can be dynamic yet may remain in equilibrium (e.g., water cycle, rock cycle, population)	
FORM AND FUNCTION	
9–10.1.4. Describe the relationship between form and function (e.g., solids, liquids, gases, cell specialization, simple machines, and plate tectonics)	
9–10.1.5. Explain how classification can be based on the relationship between form and function (e.g., elements and compounds, biological classifications, types of clouds)	
EVOLUTION AND EQUILIBRIUM	
9–10.1.6. Identify principles governing evolution and equilibrium within systems (e.g., cause and effect, positive and negative feedback)	

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TABLE 3C

NORTH DAKOTA Grades 9–10 Science Content Standards	PLAN Science College Readiness Standards
Standard 2: Science Inquiry Students use the process of science inquiry.	
UNDERSTANDINGS ABOUT SCIENTIFIC INQUIRY	
9–10.2.1. Explain how scientific investigations can result in new ideas	
ABILITIES NECESSARY TO DO SCIENTIFIC INQUIRY	
9–10.2.2. Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)	
9–10.2.3. Identify questions and concepts that guide scientific investigations	**Scientific Investigation:** Understand a simple experimental design Determine the hypothesis for an experiment
9–10.2.4. Formulate a testable hypothesis for a simple investigation	**Scientific Investigation:** Understand a simple experimental design Determine the hypothesis for an experiment
9–10.2.5. Identify the independent and dependent variables, the control, and the constants when conducting an experiment	**Scientific Investigation:** Understand the methods and tools used in a simple experiment Understand a simple experimental design Identify a control in an experiment
9–10.2.6. Design and conduct a guided investigation	**Scientific Investigation:** Understand the methods and tools used in a simple experiment Understand a simple experimental design Identify a control in an experiment
9–10.2.7. Maintain clear and accurate records of scientific investigations	

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TABLE 3C

NORTH DAKOTA Grades 9–10 Science Content Standards	PLAN Science College Readiness Standards
Standard 2: Science Inquiry	
9–10.2.8. Analyze data found in tables, charts, and graphs to formulate conclusions	**Interpretation of Data:** Select a single piece of data (numerical or nonnumerical) from a simple data presentation (e.g., a table or graph with two or three variables; a food web diagram) Identify basic features of a table, graph, or diagram (e.g., headings, units of measurement, axis labels) Select two or more pieces of data from a simple data presentation Understand basic scientific terminology Find basic information in a brief body of text Determine how the value of one variable changes as the value of another variable changes in a simple data presentation Compare or combine data from a simple data presentation (e.g., order or sum data from a table) Translate information into a table, graph, or diagram **Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Select a simple hypothesis, prediction, or conclusion that is supported by two or more data presentations or models

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TABLE 3C

NORTH DAKOTA Grades 9–10 Science Content Standards	PLAN Science College Readiness Standards
Standard 3: Physical Science Students understand the basic concepts and principles of physical science.	
PROPERTIES OF MATTER	
9–10.3.1. Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)	
9–10.3.2. Classify changes in matter as physical or chemical	
9–10.3.3. Identify the Law of Conservation of Matter in physical and chemical changes	
ATOMS AND MOLECULES	
9–10.3.4. Construct a model of an atom (e.g., protons, neutrons, electrons, nucleus, electron cloud)	
CHEMICAL REACTIONS	
9–10.3.5. Identify the reactants and products in a chemical reaction	
9–10.3.6. Distinguish between balanced and unbalanced chemical equations	
FORCE AND MOTION	
9–10.3.7. Use Newton's Laws to describe the motion of an object	
ENERGY TRANSFER AND TRANSFORMATION	
9–10.3.8. Describe the relationships between kinetic and potential energy in basic transformations (e.g., physical and chemical changes)	
VIBRATIONS AND WAVES	
9–10.3.9. Compare and contrast electromagnetic and mechanical waves (i.e. energy, energy transfer, medium)	
ELECTRICITY AND MAGNETISM	
9–10.3.10. Describe the differences between series and parallel circuits	

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TABLE 3C

NORTH DAKOTA Grades 9–10 Science Content Standards	PLAN Science College Readiness Standards
Standard 4: Life Science Students understand the basic concepts and principles of life science.	
STRUCTURE AND FUNCTION	
9–10.4.1. Relate cell function to cell structure (i.e., cell wall, cell membrane, nucleus, mitochondria, chloroplast)	
9–10.4.2. Relate the functions of cells in multicellular organisms to their cell type (e.g., nerve cells, blood cells, guard cells)	
9–10.4.3. Explain the relationship between protein structure and function	
GENETICS AND REPRODUCTION	
9–10.4.4. Relate DNA, genes, and chromosomes	
9–10.4.5. Explain the relationship between spontaneous changes in DNA and a source of genetic variation	
9–10.4.6. Compare and contrast the results of mitosis and meiosis (i.e., mitosis involves a nuclear division that results in two daughter nuclei that are identical to the parent nucleus; meiosis involves two nuclear divisions that result in gametes cells containing half the number of chromosomes)	
9–10.4.7. Apply the basic concepts of genetics to predict inherited traits (i.e., segregation, independent assortment, dominant and recessive traits)	
NATURAL SELECTION AND BIOLOGICAL EVOLUTION	
9–10.4.8. Relate the concept of natural selection to its evolutionary consequences	
9–10.4.9. Identify evidence for evolution (e.g., fossil records, vestigial structures, similarities between organisms, and DNA)	
INTERDEPENDENCE AMONG ORGANISMS	
9–10.4.10. Explain the energy and organization related to trophic pyramids	
MATTER AND ENERGY IN LIVING SYSTEMS	
9–10.4.11. Explain how matter and energy flow through living and nonliving components in an ecosystem (e.g., carbon cycle, water cycle, nitrogen cycle)	
9–10.4.12. Compare and contrast photosynthesis and cellular respiration	

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TABLE 3C

NORTH DAKOTA Grades 9–10 Science Content Standards	PLAN Science College Readiness Standards
Standard 5: Earth and Space Science Students understand the basic concepts and principles of earth and space science.	
THE UNIVERSE	
9–10.5.1. Explain the relationship between the Big Bang Theory and the origin and evolution of the universe	
EARTH'S HISTORY	
9–10.5.2. Relate the changes in the Earth's atmosphere to the evolution of photosynthetic life forms	
ENERGY IN THE EARTH SYSTEM	
9–10.5.3. Explain how energy in the Earth system is governed by convection, conduction, and radiation (e.g., heat moves in the Earth's mantle by convection, conduction occurs along the mid-oceanic ridges, energy from the Sun reaches the Earth through radiation)	
GEOLOGIC PROCESSES, HUMAN ACTIVITIES, AND THE ENVIRONMENT	
9–10.5.4. Identify the short-term and long-term effects of physical processes (e.g., plate tectonics, extreme weather phenomenon) on the environment and society	
9–10.5.5. Analyze how evidence of past natural hazards and geologic events has predicted subsequent hazards and events (e.g. Gap time method to predict earthquakes and tsunamis)	
9–10.5.6. Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, landmanagement strategies) on the environment	

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TABLE 3C

NORTH DAKOTA Grades 9–10 Science Content Standards	PLAN Science College Readiness Standards
Standard 6: Science and Technology Students understand relations between science and technology.	
TECHNOLOGICAL DESIGN	
9–10.6.1. Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)	
9–10.6.2. Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)	
TECHNOLOGY AND SOCIETY	
9–10.6.3. Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment	

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TABLE 3C

NORTH DAKOTA Grades 9–10 Science Content Standards	PLAN Science College Readiness Standards
Standard 7: Science and Other Areas Students understand relations between science and personal, social, and environmental issues.	
SCIENCE AND PERSONAL HEALTH	
9–10.7.1. Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition	
SCIENCE AND ENVIRONMENTAL ISSUES	
9–10.7.2. Identify factors that affect populations (e.g., food webs, carrying capacity, overpopulation, disease, food supply, algal blooms, resources, conservation practices)	
SCIENCE AND SOCIAL ISSUES	
No benchmark expectations at this level	

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TABLE 3C

NORTH DAKOTA Grades 9–10 Science Content Standards	PLAN Science College Readiness Standards
Standard 8: History and Nature of Science Students understand the history and nature of science.	
PEOPLE IN SCIENCE	
9–10.8.1. Identify the role of scientists in theoretical and applied science (e.g., careers, employment possibilities)	
9–10.8.2. Identify the human characteristics that influence scientific advancement (e.g., intellectual honesty, openness, objectivity, curiosity, skepticism, ethical conduct, cooperation)	
9–10.8.3. Explain how individuals and groups, from different disciplines in and outside of science, contribute to science at different levels of complexity	
SCIENTIFIC KNOWLEDGE	
9–10.8.4. Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)	
SCIENCE AND SOCIETY	
9–10.8.5. Explain how views and attitudes have influenced the development of science (e.g., religion, previous knowledge, cultural tradition, superstition, folklore, legends)	

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TABLE 3D

NORTH DAKOTA Grades 11–12 Science Content Standards	ACT Science College Readiness Standards
Standard 1: Unifying Concepts Students understand the unifying concepts and processes of science.	
MODELS	
11–12.1.1. Explain how scientists create and use models to address scientific knowledge	**Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Identify key issues or assumptions in a model Determine whether given information supports or contradicts a simple hypothesis or conclusion, and why Identify strengths and weaknesses in one or more models Identify similarities and differences between models Determine which model(s) is(are) supported or weakened by new information Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion
SYSTEMS	
11–12.1.2. Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)	
CONSTANCY AND CHANGE	
11–12.1.3. Explain how a system can be dynamic yet may remain in equilibrium (e.g., balance of forces, Le Chatelier's Principle, acid base systems)	
FORM AND FUNCTION	
11–12.1.4. Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)	
11–12.1.5. Explain how classification can be based on the relationship between form and function (e.g., polar vs. nonpolar molecules, structure of periodic table, DNA vs. RNA)	
EVOLUTION AND EQUILIBRIUM	
No benchmark expectations at this level	

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TABLE 3D

NORTH DAKOTA Grades 11–12 Science Content Standards	ACT Science College Readiness Standards
Standard 2: Science Inquiry Students use the process of science inquiry.	
UNDERSTANDINGS ABOUT SCIENTIFIC INQUIRY	
11–12.2.1. Explain how new knowledge and methods emerge from different types of investigations and public communication among scientists	
ABILITIES NECESSARY TO DO SCIENTIFIC INQUIRY	
11–12.2.2. Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations	**Scientific Investigation:** Understand the methods and tools used in a simple experiment Understand a simple experimental design
11–12.2.3. Use data from scientific investigations to accept or reject a hypothesis	**Interpretation of Data:** Select a single piece of data (numerical or nonnumerical) from a simple data presentation (e.g., a table or graph with two or three variables; a food web diagram) Identify basic features of a table, graph, or diagram (e.g., headings, units of measurement, axis labels) Select two or more pieces of data from a simple data presentation Understand basic scientific terminology Find basic information in a brief body of text Determine how the value of one variable changes as the value of another variable changes in a simple data presentation Compare or combine data from a simple data presentation (e.g., order or sum data from a table) Translate information into a table, graph, or diagram **Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Select a simple hypothesis, prediction, or conclusion that is supported by two or more data presentations or models Determine whether given information supports or contradicts a simple hypothesis or conclusion, and why Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion

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TABLE 3D

NORTH DAKOTA Grades 11–12 Science Content Standards	ACT Science College Readiness Standards
Standard 2: Science Inquiry	
11–12.2.4. Formulate and revise explanations based upon scientific knowledge and experimental data	**Interpretation of Data:** Select a single piece of data (numerical or nonnumerical) from a simple data presentation (e.g., a table or graph with two or three variables; a food web diagram) Identify basic features of a table, graph, or diagram (e.g., headings, units of measurement, axis labels) Select two or more pieces of data from a simple data presentation Understand basic scientific terminology Find basic information in a brief body of text Determine how the value of one variable changes as the value of another variable changes in a simple data presentation Compare or combine data from a simple data presentation (e.g., order or sum data from a table) Translate information into a table, graph, or diagram Analyze given information when presented with new, simple information **Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Determine whether given information supports or contradicts a simple hypothesis or conclusion, and why Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion Determine whether new information supports or weakens a model, and why
11–12.2.5. Use technology and mathematics to improve investigations and communications	**Interpretation of Data:** Determine how the value of one variable changes as the value of another variable changes in a simple data presentation Interpolate between data points in a table or graph Identify and/or use a simple (e.g., linear) mathematical relationship between data **Scientific Investigation:** Understand the methods and tools used in a simple experiment Understand a simple experimental design

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TABLE 3D

NORTH DAKOTA Grades 11–12 Science Content Standards	ACT Science College Readiness Standards
Standard 2: Science Inquiry	
11–12.2.6. Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)	**Interpretation of Data:** Select a single piece of data (numerical or nonnumerical) from a simple data presentation (e.g., a table or graph with two or three variables; a food web diagram) Identify basic features of a table, graph, or diagram (e.g., headings, units of measurement, axis labels) Select two or more pieces of data from a simple data presentation Understand basic scientific terminology Find basic information in a brief body of text Determine how the value of one variable changes as the value of another variable changes in a simple data presentation Compare or combine data from a simple data presentation (e.g., order or sum data from a table) Translate information into a table, graph, or diagram Interpolate between data points in a table or graph Identify and/or use a simple (e.g., linear) mathematical relationship between data Identify and/or use a complex (e.g., nonlinear) mathematical relationship between data Extrapolate from data points in a table or graph
11–12.2.7. Design and conduct an independent investigation	**Scientific Investigation:** Understand the methods and tools used in a simple experiment Understand a simple experimental design Identify a control in an experiment Determine the experimental conditions that would produce specified results Determine the hypothesis for an experiment
11–12.2.8. Communicate and defend a scientific argument	**Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Identify key issues or assumptions in a model Determine whether given information supports or contradicts a simple hypothesis or conclusion, and why Identify strengths and weaknesses in one or more models Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion

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TABLE 3D

NORTH DAKOTA Grades 11–12 Science Content Standards	ACT Science College Readiness Standards
Standard 3: Physical Science Students understand the basic concepts and principles of physical science.	
PROPERTIES OF MATTER	
No benchmark expectations at this level	
ATOMIC STRUCTURE AND PROPERTIES	
11–12.3.1. Explain how the structure of an atom, isotope, or ion relates to its properties	
11–12.3.2. Identify the basic organization of the periodic table (e.g., elements are listed according to the number of protons [atomic number]; repeating patterns of physical and chemical properties	
ATOMS AND MOLECULES	
11–12.3.3. Compare and contrast the role of electrons in ionic and covalent bonding	
11–12.3.4. Identify the basic bonding characteristics of carbon which lead to a large variety of structures	
CHEMICAL REACTIONS	
11–12.3.5. Identify the effect of concentration, temperature, surface area, pressure, and catalysts on reaction rates as it relates to the Kinetic Theory	
11–12.3.6. Write the chemical formula and name for compounds using a table of element names, symbols, and oxidation numbers	
11–12.3.7. Balance chemical equations	
FORCE AND MOTION	
11–12.3.8. Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)	
FORMS OF ENERGY	
11–12.3.9. Explain the relationship among thermal energy, temperature, and the motion of particles	
ENERGY TRANSFER AND TRANSFORMATION	
11–12.3.10. Apply the law of conservation of energy to a variety of situations	
11–12.3.11. Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)	
VIBRATIONS AND WAVES	
11–12.3.12. Relate wave energy to wavelength and frequency	
ELECTRICITY AND MAGNETISM	
11–12.3.13. Explain how magnetic forces relate to electric forces	

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TABLE 3D

NORTH DAKOTA Grades 11–12 Science Content Standards	ACT Science College Readiness Standards
Standard 4: Life Science Students understand the basic concepts and principles of life science.	
STRUCTURE AND FUNCTION	
11–12.4.1. Explain the importance of cell differentiation in the development of tissues, organs, organ systems, and multicellular organisms.	
GENETICS AND REPRODUCTION	
11–12.4.2. Explain how types of DNA technology (e.g., genetic engineering, forensic science, cloning) may impact society now and in the future.	
NATURAL SELECTION AND BIOLOGICAL EVOLUTION	
11–12.4.3. Explain how change through time has ensured adaptation to changing environments	
INTERDEPENDENCE AMONG ORGANISMS	
No benchmark expectations at this level	
MATTER AND ENERGY IN LIVING SYSTEMS	
No benchmark expectations at this level	

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____ = Content sampled by ACT Science Test

TABLE 3D

NORTH DAKOTA Grades 11–12 Science Content Standards	ACT Science College Readiness Standards
Standard 5: Earth and Space Science Students understand the basic concepts and principles of earth and space science.	
THE UNIVERSE	
11–12.5.1. Explain how the Sun and other stars are powered by nuclear reactions (e.g., the fusion of hydrogen to form helium, formation of elements)	
EARTH'S HISTORY	
No benchmark expectations at this level	
ENERGY IN THE EARTH SYSTEM	
11–12.5.2. Explain how Earth systems are in dynamic equilibrium (e.g., cycling of energy and matter through the atmosphere, hydrosphere, and lithosphere)	
CYCLES IN THE EARTH SYSTEM	
No benchmark expectations at this level	
GEOLOGIC PROCESSES, HUMAN ACTIVITIES, AND THE ENVIRONMENT	
11–12.5.3. Explain the short-term and long-term effects of chemical processes (e.g., acid rain, CO_2 emissions, ozone depletion, run-off) on the environment and society	

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TABLE 3D

NORTH DAKOTA Grades 11–12 Science Content Standards	ACT Science College Readiness Standards
Standard 6: Science and Technology Students understand relations between science and technology.	
TECHNOLOGICAL DESIGN	
11–12.6.1. Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)	
11–12.6.2. Identify examples of how new technologies advance science	
TECHNOLOGY AND SOCIETY	
11–12.6.3. Explain how designing and implementing technology requires weighing trade-offs between positive and negative impacts on humans and the environment	

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TABLE 3D

NORTH DAKOTA Grades 11–12 Science Content Standards	ACT Science College Readiness Standards
Standard 7: Science and Other Areas Students understand relations between science and personal, social, and environmental issues.	
SCIENCE AND PERSONAL HEALTH	
No benchmark expectations at this level	
SCIENCE AND ENVIRONMENTAL ISSUES	
11–12.7.1. Explain the impact of environmental laws and policies on the environment and society (e.g., waste/ pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)	
11–12.7.2. Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy–conserving technologies)	
11–12.7.3. Explain the economic and social impact of using alternative energy resources	
SCIENCE AND SOCIAL ISSUES	
11–12.7.4. Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)	

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TABLE 3D

NORTH DAKOTA Grades 11–12 Science Content Standards	ACT Science College Readiness Standards
Standard 8: History and Nature of Science Students understand the history and nature of science.	
PEOPLE IN SCIENCE	
No benchmark expectations at this level	
SCIENTIFIC KNOWLEDGE	
11–12.8.1. Identify the criteria that scientific explanations must meet to be considered valid (e.g., must be based on consistent and repeatable data, be consistent with experimental and observational evidence about nature, make accurate predictions about systems being studied, be logical, report methods and results, be open to question and reexamination, respect rules of evidence)	**Evaluation of Models, Inferences, and Experimental Results:** Identify key issues or assumptions in a model Identify strengths and weaknesses in one or more models
SCIENCE AND SOCIETY	
No benchmark expectations at this level	

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TABLE 3E

NORTH DAKOTA Grades 11–12 Science Content Standards	WorkKeys Locating Information Skills
Standard 1: Unifying Concepts Students understand the unifying concepts and processes of science.	
MODELS	
11–12.1.1. Explain how scientists create and use models to address scientific knowledge	
SYSTEMS	
11–12.1.2. Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)	
CONSTANCY AND CHANGE	
11–12.1.3. Explain how a system can be dynamic yet may remain in equilibrium (e.g., balance of forces, Le Chatelier's Principle, acid base systems)	
FORM AND FUNCTION	
11–12.1.4. Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)	Understand how graphics are related to each other
11–12.1.5. Explain how classification can be based on the relationship between form and function (e.g., polar vs. nonpolar molecules, structure of periodic table, DNA vs. RNA)	
EVOLUTION AND EQUILIBRIUM	
No benchmark expectations at this level	

TABLE 3E

NORTH DAKOTA Grades 11–12 Science Content Standards	WorkKeys Locating Information Skills
Standard 2: Science Inquiry Students use the process of science inquiry.	
UNDERSTANDINGS ABOUT SCIENTIFIC INQUIRY	
11–12.2.1. Explain how new knowledge and methods emerge from different types of investigations and public communication among scientists	
ABILITIES NECESSARY TO DO SCIENTIFIC INQUIRY	
11–12.2.2. Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations	
11–12.2.3. Use data from scientific investigations to accept or reject a hypothesis	Draw conclusions based on one complicated graphic or several related graphics
11–12.2.4. Formulate and revise explanations based upon scientific knowledge and experimental data	
11–12.2.5. Use technology and mathematics to improve investigations and communications	
11–12.2.6. Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)	Summarize information from one or more detailed graphics Identify trends shown in one or more detailed or complicated graphics Compare information and trends from one or more complicated graphics
11–12.2.7. Design and conduct an independent investigation	
11–12.2.8. Communicate and defend a scientific argument	

TABLE 3E

NORTH DAKOTA Grades 11–12 Science Content Standards	WorkKeys Locating Information Skills
Standard 3: Physical Science Students understand the basic concepts and principles of physical science.	
PROPERTIES OF MATTER	
No benchmark expectations at this level	
ATOMIC STRUCTURE AND PROPERTIES	
11–12.3.1. Explain how the structure of an atom, isotope, or ion relates to its properties	
11–12.3.2. Identify the basic organization of the periodic table (e.g., elements are listed according to the number of protons [atomic number]; repeating patterns of physical and chemical properties	Summarize information from one or more detailed graphics
ATOMS AND MOLECULES	
11–12.3.3. Compare and contrast the role of electrons in ionic and covalent bonding	
11–12.3.4. Identify the basic bonding characteristics of carbon which lead to a large variety of structures	
CHEMICAL REACTIONS	
11–12.3.5. Identify the effect of concentration, temperature, surface area, pressure, and catalysts on reaction rates as it relates to the Kinetic Theory.	
11–12.3.6. Write the chemical formula and name for compounds using a table of element names, symbols, and oxidation numbers	
11–12.3.7. Balance chemical equations	
FORCE AND MOTION	
11–12.3.8. Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)	Understand how graphics are related to each other
FORMS OF ENERGY	
11–12.3.9. Explain the relationship among thermal energy, temperature, and the motion of particles	
ENERGY TRANSFER AND TRANSFORMATION	
11–12.3.10. Apply the law of conservation of energy to a variety of situations	
11–12.3.11. Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)	
VIBRATIONS AND WAVES	
11–12.3.12. Relate wave energy to wavelength and frequency	
ELECTRICITY AND MAGNETISM	
11–12.3.13. Explain how magnetic forces relate to electric forces	

TABLE 3E

NORTH DAKOTA Grades 11–12 Science Content Standards	WorkKeys Locating Information Skills
Standard 4: Life Science Students understand the basic concepts and principles of life science.	
STRUCTURE AND FUNCTION	
11–12.4.1. Explain the importance of cell differentiation in the development of tissues, organs, organ systems, and multicellular organisms.	
GENETICS AND REPRODUCTION	
11–12.4.2. Explain how types of DNA technology (e.g., genetic engineering, forensic science, cloning) may impact society now and in the future.	
NATURAL SELECTION AND BIOLOGICAL EVOLUTION	
11–12.4.3. Explain how change through time has ensured adaptation to changing environments	
INTERDEPENDENCE AMONG ORGANISMS	
No benchmark expectations at this level	
MATTER AND ENERGY IN LIVING SYSTEMS	
No benchmark expectations at this level	

TABLE 3E

NORTH DAKOTA Grades 11–12 Science Content Standards	WorkKeys Locating Information Skills
Standard 5: Earth and Space Science Students understand the basic concepts and principles of earth and space science.	
THE UNIVERSE	
11–12.5.1. Explain how the Sun and other stars are powered by nuclear reactions (e.g., the fusion of hydrogen to form helium, formation of elements)	
EARTH'S HISTORY	
No benchmark expectations at this level	
ENERGY IN THE EARTH SYSTEM	
11–12.5.2. Explain how Earth systems are in dynamic equilibrium (e.g., cycling of energy and matter through the atmosphere, hydrosphere, and lithosphere)	
CYCLES IN THE EARTH SYSTEM	
No benchmark expectations at this level	
GEOLOGIC PROCESSES, HUMAN ACTIVITIES, AND THE ENVIRONMENT	
11–12.5.3. Explain the short-term and long-term effects of chemical processes (e.g., acid rain, CO2 emissions, ozone depletion, run-off) on the environment and society	

TABLE 3E

NORTH DAKOTA Grades 11–12 Science Content Standards	WorkKeys Locating Information Skills
Standard 6: Science and Technology Students understand relations between science and technology.	
TECHNOLOGICAL DESIGN	
11–12.6.1. Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)	
11–12.6.2. Identify examples of how new technologies advance science	
TECHNOLOGY AND SOCIETY	
11–12.6.3. Explain how designing and implementing technology requires weighing trade-offs between positive and negative impacts on humans and the environment	

TABLE 3E

NORTH DAKOTA Grades 11–12 Science Content Standards	WorkKeys Locating Information Skills
Standard 7: Science and Other Areas Students understand relations between science and personal, social, and environmental issues.	
SCIENCE AND PERSONAL HEALTH	
No benchmark expectations at this level	
SCIENCE AND ENVIRONMENTAL ISSUES	
11–12.7.1. Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)	
11–12.7.2. Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy–conserving technologies)	
11–12.7.3. Explain the economic and social impact of using alternative energy resources	
SCIENCE AND SOCIAL ISSUES	
11–12.7.4. Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)	

TABLE 3E

NORTH DAKOTA Grades 11–12 Science Content Standards	WorkKeys Locating Information Skills
Standard 8: History and Nature of Science Students understand the history and nature of science.	
PEOPLE IN SCIENCE	
No benchmark expectations at this level	
SCIENTIFIC KNOWLEDGE	
11–12.8.1. Identify the criteria that scientific explanations must meet to be considered valid (e.g., must be based on consistent and repeatable data, be consistent with experimental and observational evidence about nature, make accurate predictions about systems being studied, be logical, report methods and results, be open to question and reexamination, respect rules of evidence)	Use the information to make decisions
SCIENCE AND SOCIETY	
No benchmark expectations at this level	