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# POWER STANDARDS

## K-12

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# INTRODUCTION

The Clark County School District specifies the K-12 curriculum as the basis for instruction in all schools. The Curriculum Essentials Framework (CEF) for Grades K-5 and the Course Scope and Goals and Syllabi for Grades 6-12 include the Nevada Content Standards that outline essential student learning standards for each grade level and core course. These documents are used by classroom teachers as the curricular scope for planning and delivering instruction and for monitoring student learning and progress.

To address the goal of alignment of the "intended," the "taught," and the "assessed" curriculum, the district began an external curriculum audit process in June 2003. During the past two years, ETS/Pulliam has provided support to the Clark County School District's *Accountability Plan*. As part of the process, representatives have collaborated with district staff to review the K-12 Nevada Standards, the CCSD K-12 Language Arts and Mathematics, and Science curriculum, and the objectives included on the required state and district student assessments. Based on this review, *POWER STANDARDS* for K-12 Language Arts and Mathematics were identified.

ETS/Pulliam and the Clark County School District have identified the *POWER STANDARDS* as the most critical standards that students are held accountable for mastering. They are highly focused, specific areas of instructional emphasis and are essential for student proficiency in the identified K-12 subject areas. They are aligned with the assessments for each grade and must be used to focus and pace instruction. The 2007 Power Standards have been updated based on input from teachers, principals, and curriculum staff as well as on suggestions from ETS/Pulliam staff, and this document reflects these revisions. The 2007 version now includes Science Power Standards.

The identified K-12 curriculum provides a continuum of student learning. Students who demonstrate mastery of the grade-level *POWER STANDARDS* are given advanced learning experiences, and students who are not proficient are given the necessary basic instructional foundation to attain proficiency. Student progress toward achievement of the identified *POWER STANDARDS* is continuously assessed in a variety of ways to determine appropriate student learning needs, to implement appropriate instructional strategies, and to modify instruction.

Updated Benchmarks that reflect the *POWER STANDARDS* have been developed and published by the Curriculum and Professional Development Division staff. Additionally, grade-level and course Benchmark Assessments have been developed and are aligned with the *POWER STANDARDS*. All student achievement results are reported through the CCSD Instructional Data Management System (IDMS) so that student progress can be closely monitored and instructional modifications can be made as needed.

The documents include a column with reference to the Nevada Content Standards, and the correlation to the CCSD curriculum standard is indicated by a number in brackets [ ] following the statement. Items identified with an A1, A2, etc., indicate there is no corresponding state standard at that level. District correlation of the *POWER STANDARDS* to specific core secondary courses is currently being completed. As correlations are completed, updated versions of the documents will be provided for each school. Revision of the *POWER STANDARDS* will be ongoing; suggestions from teachers and administrators are important and are encouraged.

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**POWER STANDARDS  
LANGUAGE ARTS  
K-12**

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## Kindergarten Power Standards for Language Arts

Power standards include key recommendations of the National Reading Panel and skills required for ITBS “backward mapped” to Kindergarten.  
For pacing of the CCSD Power Standards, please refer to the Guide for Benchmarks.

Strand	NV	CCSD Power Standards
Word Analysis and Decoding	1.K.1 1.K.2 1.K.4 3.1.5 1.K.A1	Use high frequency words, environmental print to read simple texts. [1.11] Identify and use letter-sound relationships to identify some words. [1.10] Identify initial and final sounds in words; recognize and sequence letters of the alphabet. [1.4, 1.7] Identify rhyming words. [Gr. 1] , 1.1 Identify, blend, and segment phonemes in simple words. [1.4]
Reading Process Skills and Strategies	2.K.1 2.K.A1 2.K.A2	Use prior knowledge and picture clues as pre-reading strategies. [2.1] Demonstrate concepts about print: top/bottom, left/right, story “sense.” [1.12] Predict what a story will be about. [2.1]
Literature	3.K.3 3.K.5 3.K.7 3.K.A1 3.K.A2	Listen to stories from different cultures and eras. [3.2] Listen for rhythm, rhyme, and alliteration. [3.3] Listen and respond to poetry and prose (fiction and non-fiction). [3.4] Retell beginning, middle, and end of familiar stories (see also 9.4) [3.1] Respond to who, what, where, and why questions. [2.2]
Informational Text	4.K.1 4.K.2 4.K.3 4.K.A1	Know that text, pictures, and graphs provide information. [4.1] Recall information from text, pictures, and graphs. [4.2] Distinguish between statements and questions. [4.3] Know forms/formats of books and other print materials (cover, title, author, illustrator). [4.5]
Writing Genre	5.K.1 5.K.2 5.K.3 5.K.4	Respond to information by drawing or writing. [5.1, 5.2] Draw and write to communicate. [5.3] Draw and write stories about experiences and events. [5.4] Draw and write responses to literature. [5.5]
Composition Skills	6.K.1 6.K.3	Select ideas for writing. [6.3] Draw and write simple stories with teacher assistance.. [6.5]
Conventions of English Language	7.K.4 7.K.5 7.K.6	Write own first and last name (and capitalize first letter correctly). [7.1, 7.2] Spell first and last name correctly. [7.3] Form letters correctly. [7.4]
Listening Skills	8.K.1 8.K.2 8.K.4	Listen for a variety of purposes (information, solve problem, enjoyment). [8.1] Attend to and respond to stories and group discussions. [8.2] Listen to and follow oral directions. [8.3]
Speaking Skills	9.K.1 9.K.3 9.K.4 9.K.5 9.K.A1	Use and expand vocabulary to communicate ideas. [9.1] Share and respond to ideas. [9.3] Relate experiences and retell stories. [9.4] Give clear directions to complete a simple task. [9.5] Use complete sentences to communicate ideas. [9.6]
Discussion	10.K.1 10.K.2 10.K.3	Take turns in conversations and group discussions. [10.1] Ask and answer questions. [10.2] Share ideas and information. [10.3]
Research & Study Skills	11.K.1 11.K.2	Formulate questions to explore areas of interest. [11.2] Use simple reference materials and technology. [11.1]

## Grade One Power Standards for Language Arts

Power standards include key recommendations of the National Reading Panel and skills required for ITBS “backward mapped” to Grade One. For pacing of the CCSD Power Standards, please refer to the Guide for Benchmarks.

Strand	NV	CCSD Power Standards
Word Analysis and Decoding	1.1.1	Use knowledge of high frequency words to read text aloud with fluency, accuracy, and expression. [1.6]
		Use phonics and knowledge of word families to decode words in context. [1.7]
	1.1.2	Use knowledge of common prefixes, suffixes, and abbreviated words to identify words in context. [1.9]
	1.1.3	Use knowledge of simple spelling patterns (e.g. CVC = cat), blends, and digraphs when reading. [1.8]
		Identify synonyms and antonyms in context. [1.11]
	1.1.4	Identify initial, medial, and final sounds in single syllable words. [1.4]
		Distinguish long and short vowel sounds in orally stated words. [1.4]
	1.1.5	Add, delete, or change target sounds to change words ( <i>cow</i> to <i>how</i> ). [1.13,1.4]
1.1.A1	Read common irregular sight words. [1.6]	
1.1.A2		
1.1.A3		
1.1.A4		
Reading Process Skills and Strategies	2.1.3	Recall details of text while reading. [2.4]
	2.1.4	Retell details of text. [2.7]
	2.1.A1	Read decodable and predictable text with fluency. [2.10]
	2.1.A2	Locate information from graphic features. [4.1]
	2.1.A3	Read aloud fiction and non-fiction with fluency and expression [2.10]
Literature	3.1.1	Identify characters, setting, and sequence in stories. [3.5]
	3.1.2	Identify simple character traits and predict story outcome. [3.5]
	3.1.5	Identify rhythm, rhyme, and alliteration. [3.8]
Informational Text	4.1.1	Locate/use title, pictures, charts, graphs, name of author and illustrator to obtain information. [4.1]
	4.1.2	Identify cause and effect and main idea. [4.2, 4.3]
	4.1.3	Use text, pictures, and graphs to answer questions. [4.4]
	4.1.6	Read and follow a simple direction to perform a task. [4.6]
Writing Genre	5.1.1	Write simple informative papers with teacher assistance. [5.6]
	5.1.3	Write simple stories. [5.5]
	5.1.4	Write responses to literature with teacher assistance. [5.4]
Composition Skills	6.1.2	Organize and sequence ideas with teacher assistance. [6.4]
	6.1.3	Write stories or other compositions with teacher assistance. [6.6]
	6.1.A1	Begin to use all steps in the writing process. [6.1, 6.7, 6.8, 6.9]
Conventions of English Language	7.1.1	Use nouns, verbs, and pronouns in writing. [7.2]
	7.1.2	Write complete sentences. [7.1]
	7.1.3	Use end punctuation, contractions, and singular possessives correctly. [7.5, 7.6, 7.7, 7.8]
	7.1.4	Capitalize names, months, days of week, words beginning sentences. [7.3]
	7.1.5	Use correct spelling of CVC and frequently used words (e.g. <i>the, is, my</i> ). [7.8]
Listening Skills	8.1.1	Listen for a variety of purposes (information, solve problem, enjoyment). [8.1]
	8.1.4	Follow simple oral directions to complete a task. [8.8]
Speaking Skills	9.1.4	Recount experiences and retell stories in sequence. [9.7]
	9.1.5	Give clear directions to complete a simple task. [9.8]
Discussing	10.1.2	Ask and answer questions to gather and provide information. [10.2]
Research & Study Skills	11.1.1	Formulate questions to explore areas of interest with teacher assistance. [11.1]
	11.1.4	Know alphabetical order. [11.6]

## Grade Two Power Standards for Language Arts

Power standards include key recommendations of the National Reading Panel and skills required for ITBS “backward mapped” to Grade Two.  
For pacing of the CCSD Power Standards, please refer to the Guide for Benchmarks.

Strand	NV	CCSD Power Standards
Word Analysis and Decoding	1.2.1	Use knowledge of high-frequency words to read aloud with fluency, accuracy, appropriate intonation, and expression. [1.4, 1.5]
	1.2.2	Use knowledge of phonics and structural elements (e.g. syllables, basic prefixes, roots, and suffixes) to decode unfamiliar words in context. [1.2]
	1.2.3	Identify meaning of common prefixes and suffixes in context. [1.6]
	1.2.4	Identify and use knowledge of spelling patterns in reading; apply knowledge of basic syllabication rules when reading (e.g. V/CV=su/per, VC/CV=sup/per). [1.7]
	1.2.5	Identify and use knowledge of synonyms, antonyms, homophones, and homographs to understand text. [1.12]
Reading Process Skills and Strategies	2.2.3	Formulate the main idea while reading. [2.4, 2.5]
	2.2.4	Recall the main idea of the text. [2.4]
	2.2.A1	Draw simple conclusions about text. [2.12]
Literature	3.2.1	Identify simple elements of a story such as setting, character, and plot. [3.1]
	3.2.2	Make basic inferences about characters and predict story outcomes. [3.4]
	3.2.3	Compare and contrast different versions of the same stories. [3.5]
Informational Text	4.2.1	Locate table of contents and chapter headings, and interpret information from diagrams, charts, and graphs. [4.1]
	4.2.2	Identify and explain cause and effect and determine the main idea. [4.2, 4.3]
	4.2.6	Read and follow simple directions to perform a task. [4.5]
Writing Genre	5.2.1	Use at least two sources to write an informative paper. [5.2]
	5.2.2	Write friendly letters. [5.4]
	5.2.3	Write simple stories or other compositions. [5.4]
	5.2.4	Write responses to literature (fiction and non-fiction). [5.6]
Composition Skills	6.2.2	Organize ideas with activities such as listing, webbing, and clustering. [6.2, 6.4]
	6.2.3	Write stories or other compositions. [6.6]
	6.2.4	Revise writing for detail and clarity. [6.8]
Conventions of English Language	7.2.1	Use nouns, verbs, pronouns, adjectives, and adverbs in writing. [7.2]
	7.2.2	Identify complete and incomplete sentences in writing. [7.4]
	7.2.3	Use commas in greeting and close of letter, with dates and words in a series; use end punctuation, contractions, and possessives correctly. [7.5, 7.6, 7.12, 7.13]
	7.2.4	Capitalize proper nouns and initials. [7.14]
	7.2.5	Use correct spelling of simple words containing short, long, and r-controlled vowels, blends, digraphs, and common irregular words. [7.15, 7.16]
Listening Skills	8.2.1	Determine purpose(s) for listening (information, solve problem, enjoyment). [8.1]
	8.2.4	Follow two-step oral directions to complete a task. [8.7]
Speaking Skills	9.2.3	Make oral presentations that maintain a clear focus. [9.3]
	9.2.4	Recount experiences and tell stories that move through a logical sequence of events; include character and setting. [9.4]
	9.2.5	Give clear directions to complete a simple task. [9.5]
Discussing	10.2.2	Ask and answer questions to gather and provide information. [10.2]
Research & Study Skills	11.2.2	Locate and use information from reference materials and technology. [11.5]
	1.1.4	Apply basic knowledge of alphabetical order. [11.2]

## Grade Three Power Standards for Language Arts

Power Standards are based on the Nevada State Standards, ITBS, and the Nevada Criterion Referenced Test.  
For pacing of the CCSD Power Standards, please refer to the Guide for Benchmarks.

Strand	NV	CCSD Power Standards
Word Analysis and Decoding	1.3.1	Read aloud with fluency, accuracy, appropriate intonation, and expression. [1.10]
	1.3.2	Use phonics and structural elements to read and determine the meaning of unfamiliar, multi-syllabic words in context. [1.1, 1.2]
	1.3.3	Use knowledge of prefixes, suffixes, root words, and base words to determine meaning. [1.3]
	1.3.4	Use glossary and dictionary to determine meaning and features of words. [1.5]
	1.3.5	Use knowledge of synonyms, antonyms, homophones, and homographs. [1.4]
	1.3.A1	Use patterns to spell correctly, including vowels, vowel pairs, consonants, double consonants, vowel/consonant combinations, prefixes, and suffixes [1.7]
	1.3.A2 1.3.A3	Identify initial, medial, and final sounds; identify syllables. [Gr. 1,2] Use knowledge of compound words to predict meaning of unknown words. [1.4]
Reading Skills and Strategies	2.3.3	Recall essential points; make and revise predictions. [2.2, 2.5]
	2.3.4	Restate facts and details in text to share information and organize ideas. [2.13]
	2.3.A1	Interpret information in new contexts.
Literature	3.3.2	Make inferences about setting, character traits; predict plot and verify. [3.2]
	3.3.4	Identify and compare themes (and author's purpose) in reading selections. [3.4]
	3.3.7	Read and identify stories, plays, poetry, and non-fiction selections. [3.6]
	3.3.A1	Interpret non-literal language. [3.5]
Informational Text	4.3.1	Use title, table of contents, chapter heading, glossary, index, charts/maps, and diagrams. [4.1]
	4.3.2	Distinguish cause/effect, fact/opinion, main idea, and supporting details in text. [4.2]
	4.3.4	Draw conclusions about text and support them with textual evidence. [4.4]
	4.3.6	Read and follow multi-step directions to complete a task. [4.5]
Writing Genre	5.3.1	Locate and use at least three sources to write an information paper. [5.2]
	5.3.2	Write friendly and formal letters. [5.3]
	5.3.4	Write responses to literature, drawing upon experiences. [5.5]
Composition	6.3.3	Write simple compositions and persuasive essays that address main idea and supporting details. [6.5]
Conventions of the English Language	7.3.1	Identify correct usage: verb tense, pronoun case, subject-verb agreement, irregular plurals, and comparative and superlative adjectives. [7.1]
	7.3.2	Write/punctuate declarative, interrogative, imperative, exclamatory sentences. [7.2]
	7.3.3	Use correct punctuation: dialogue, city/state, dates, titles of books, words in a series, salutation/close in letters, contractions, hour and minutes. [7.3, 7.4, 7.5, 7.6]
	7.3.4	Use correct capitalization: names and titles, dates, months, holidays, place names; first word in sentence; pronoun "I"; salutation and close of letters. [7.7]
	7.3.5	Use correct spelling of words containing affixes, contractions, compounds, and common homophones. [7.6]
	7.3.A1	Identify correct word order in sentences; correct run-on sentences. [7.3, 7.4]
Listening Skills	8.3.1	Retell and explain what has been said by a speaker. [8.1]
	8.3.4	Follow three- and four-step oral directions to complete a simple task. [8.4]
Speaking Skills	9.3.1	Use specific vocabulary, and apply standard English to communicate ideas. [9.1]
	9.3.3	Present ideas and supporting details in a logical sequence. [9.3]
	9.3.5	Give clear three- and four-step directions to complete a simple task. [9.5]
Discussion	10.3.1	Speak and listen in conversations and group discussions. [10.1]
	10.3.2	Ask pertinent questions; respond to questions with relevant details. [10.2]
	10.3.4	Distinguish between a speaker's opinion and verifiable facts. [10.4]
Research & Study Skills	11.3.2	Use library resources, media, and technology to find information on a topic. [11.2]
	11.3.4	Organize and record information from print and non-print resources. [11.4]

## Grade Four Power Standards for Language Arts

Power Standards are based on the Nevada State Standards, ITBS, and the Nevada Criterion Referenced Test.  
For pacing of the CCSD Power Standards, please refer to the Guide for Benchmarks.

Strand	NV	CCSD Power Standards
Word Analysis and Decoding	1.4.2	Use phonics, structural elements, and syntax to determine meaning of words in context. [1.1]
	1.4.3	Use knowledge of common Greek- and Latin-derived roots and affixes to determine the meaning of words in context. [1.2]
	1.4.4	Use dictionary and glossary to determine meaning and features of words. [1.3]
	1.4.5	Use knowledge of vocabulary and context clues to determine meaning of unknown words. [1.4]
Reading Skills and Strategies	2.4.3	Apply strategies of summarizing, paraphrasing, and drawing conclusions to aid comprehension. [2.9]
	2.4.4	Use note-taking, outlining, and summarizing to understand information from text. [2.12]
	2.4.A1	Read narrative and expository texts aloud with fluency. [2.11]
Read to Comprehend, Interpret, and Evaluate Literature	3.4.1	Know plot, characterization, setting, conflict, resolution (stated information). [3.1]
	3.4.2	Make inferences about character traits; make predictions about conflicts and resolutions. [3.2]
	3.4.4	Identify themes in a variety of reading selections. [3.4]
	3.4.5	Find figurative language, including simile, metaphor, and personification in text. [3.5]
	3.4.7	Identify structure of stories, plays, poetry, and non-fiction selections. [3.6]
Read to Comprehend, Interpret, and Evaluate Informational Text	4.4.1	Use titles, tables of contents, chapter headings, glossaries, indexes, diagrams, and charts to comprehend text. [4.1]
	4.4.2	Identify and compare main ideas and important concepts of texts. [4.2]
	4.4.3	Develop hypotheses based upon prior knowledge and information from text. [4.3]
	4.4.4	Draw conclusions about text and support them with evidence. [4.4]
	4.4.6	Read and follow multi-step directions to complete a task. [4.6]
Writing Genre	5.4.1	Write informative papers with a clear focus using a variety of sources. [5.2]
	5.4.2	Write well-organized friendly and formal letters. [5.3]
	5.4.4	Write responses to literature, using supporting details from the selection. [5.5]
	5.4.5	Write compositions with a main idea and supporting details. [5.6]
Composition	6.4.2	Organize ideas through activities that require sequencing and classifying skills. [6.4]
	6.4.3	Create one-paragraph composition with main idea and supporting details. [6.5]
Conventions of English Language	7.4.1	Identify/correctly use pronoun case, pronoun/antecedent agreement, subject/verb agreement, and verb tense. [7.1]
	7.4.2	Write compound and complex sentences. [7.2]
	7.4.3	Use correct punctuation: compound sentences; irregular and plural possessives.
	7.4.4	Use rules of capitalization. [7.7]
	7.4.5	Apply high frequency spelling rules to frequently used words. [7.8]
	7.4.A1	Identify correct word order in sentences; correct run-on sentences. [7.3, 7.4]
	7.4.A2	Use correct punctuation: initials and abbreviations, city and state, words in a series, salutation and close in letters, quotation marks in direct quotes, apostrophes in contractions, colon between hour and minutes. [7.5]
Listening Skills	8.4.1	Distinguish fact from opinion using verbal and non-verbal cues. [8.1]
	8.4.4	Follow oral directions to complete a complex task. [8.4]
Speaking Skills	9.4.3	Give organized presentations that demonstrate a clear viewpoint. [9.3]
	9.4.5	Give clear and concise directions to complete a task. [9.5]
Discussion	10.4.2	Ask and answer questions with relevant details to clarify ideas. [10.2]
	10.4.4	Identify and express opinions and state facts. [10.4]
Research & Study Skills	11.4.4	Organize and record information using note-taking from print and other non-print resources. [11.4]

## Grade Five Power Standards for Language Arts

Power Standards are based on the Nevada State Standards, ITBS, and the Nevada Criterion Referenced Test.  
For pacing of the CCSD Power Standards, please refer to the Guide for Benchmarks.

Strand	NV	CCSD Power Standards	
Word Analysis and Decoding	1.5.2	Use phonics, grammar, and syntax to determine the meaning of words. [1.2]	
	1.5.3	Use meanings of Greek- and Latin-derived roots and affixes to determine word meaning. [1.3]	
	1.5.4	Use dictionaries and glossaries to determine meaning and features of words. [1.4]	
	1.5.5	Use context clues to determine the meaning of unknown words. [1.5]	
Reading Skills and Strategies	2.5.3	Identify main ideas, fact and opinion, or cause and effect; summarize and draw conclusions. [2.9]	
	2.5.4	Use summarizing, note-taking, and outlining to comprehend information. [2.12]	
Read to Comprehend, Interpret, and Evaluate Literature	3.5.1	Identify the main problem or conflict and explain how it is resolved. [3.1]	
	3.5.2	Make inferences about characters' traits; predict conflicts and resolutions. [3.2]	
	3.5.4	Compare stated and implied themes in a variety of works. [3.4]	
	3.5.5	Identify/interpret figurative language (simile, metaphor, personification). [3.5]	
Read to Comprehend, Interpret, and Evaluate Informational Text	3.5.7	Understand purpose/structure of genre (stories, plays, poetry, nonfiction). [3.7]	
	4.5.1	Use format, graphics, sequence, diagrams, charts, and maps to comprehend text. [4.1]	
	4.5.2	Discern main idea and supporting evidence. [4.2]	
	4.5.3	Read to evaluate new information and hypotheses by comparing them to unknown information and ideas. [4.3]	
	4.5.4	Draw conclusions and make inferences supported by textual evidence. [4.4]	
	4.5.5	Interpret the authors' purpose in advertisements and public documents. [4.5]	
Writing Genre	4.5.6	Read and follow multi-step directions in order to complete tasks. [4.6]	
	5.5.1	Write informative papers that develop a clear topic with supporting details. [5.2]	
	5.5.2	Write organized friendly/business letters for specific audience/purpose. [5.3]	
	5.5.4	Write responses to literature that support judgments with text examples. [5.5]	
Composition	5.5.5	Write summaries of oral and written stories. [5.6]	
	5.5.6	Write short essays; speculate on cause/effect and offer persuasive evidence. [5.7]	
	6.5.3	Write paragraphs and essays with main ideas, supporting details and a conclusion. [6.5]	
	Conventions of English Language	7.5.1	Identify/use pronoun case, comparative and superlative modifiers, verb tense, subject-verb agreement, and verbs that are often misused (lie/lay). [7.1]
		7.5.2	Identify/use prepositional phrases, appositives, transitions, conjunctions. [7.2]
		7.5.3	Use colons to introduce a list; use quotation marks around words of speaker and names of poems, songs, and short stories. [7.3]
		7.5.4	Use rules of capitalization. [7.4]
7.5.5		Use correct spelling of frequently used words, especially roots, prefixes, and suffixes. [7.5]	
7.5.A1		Use correct punctuation: end-of-sentence, initials, abbreviations, city & state, dates, items in series, letter salutation/closing, apostrophes (contractions, possessives). [7.3]	
Listening Skills	8.5.1	Identify speaker viewpoint and distinguish fact from opinion. [8.1]	
	8.5.2	Identify persuasive speaking techniques, and provide feedback to speaker. [8.2]	
Speaking Skills	9.5.3	Give organized reports that demonstrate a clear point of view. [9.3]	
	9.5.5	Give multi-step directions to complete a task. [9.4]	
Discussion	10.5.1	Participate in discussions as a contributor and leader. [10.1]	
	10.5.2	Ask and answer questions to clarify or extend ideas. [10.2]	
	10.5.4	Compare and contrast ideas and viewpoints of several speakers. [10.4]	
Research & Study Skills	11.5.1	Formulate research questions; establish a focus and purpose for inquiry. [11.1]	
	11.5.2	Select information from multiple resources to answer questions. [11.2]	
	11.5.4	Record information using note-taking and organizational formats. [11.4]	

## Grade Six Power Standards for Language Arts

Power Standards are based on the Nevada State Standards, ITBS, and the Nevada Criterion Referenced Test. Items are correlated to Reading and English courses.

For pacing of the CCSD Power Standards, please refer to the Guide for Benchmarks.

Strand	NV	CCSD Power Standards
Word Analysis	1.6.3 1.6.5	Identify and use meanings of Greek- and Latin-derived roots and affixes to determine meanings of words. [1.2E, 1.3R] Identify and interpret literal and figurative language in text; use context clues to determine the meanings of words [1.1E, 1.8E, 1.4R, 1.7R]
Reading Skills and Strategies	2.6.3 2.6.4	Differentiate between main ideas and supporting details in a text. [3.7R] Summarize information from several sources. [7.4E, 3.8R]
Read to Comprehend, Interpret, and Evaluate Literature	3.6.1 3.6.2 3.6.4 3.6.6 3.6.7 3.5.2	Analyze the influence of setting on characters and on conflict resolution. [7.8E, 4.3R] Make logical predictions about characters' actions and plot development. [3.7E, 3.8E, 4.4R] Compare a variety of themes generated by a single topic. [3.10E, 3.11E, 4.7R] Identify how word connotation creates a mood in the story or poem. [3.13E, 4.6R] Identify characteristics and elements of various literary forms. [3.2E, 3.3E, 4.1R] Infer traits, feelings, and motives. [3.7E, 3.8E, 3.5R, 4.5R]
Read to Comprehend, Interpret, and Evaluate Informational Text	4.6.1 4.6.3 4.6.4 4.6.5 4.6.6 4.5.4 4.6.A1	Identify structural elements of info media (newspapers, magazines, and editorials). [4.1E, 5.1R, 5.2R] Differentiate and evaluate information from primary/secondary sources. [4.6E, 4.7E, 5.9R, 8.3R] Verify information from one source by consulting other sources. [4.8E, 5.10R] Identify how authors' ideas and purposes shape the content of informational and persuasive texts, such as advertisements and public documents; identify purpose or viewpoint. [4.3E, 4.4E, 5.3R, 5.7R] Read/follow multi-step directions to perform procedures or complete a task. [4.10E, 5.11R] Draw conclusions or make inferences. [4.5E, 3.5R] Interpret information in new contexts. [4.9E, 5.4R]
Writing Genre	5.6.1 5.6.3 5.6.5 5.6.6	Write informative papers with clear topic, appropriate facts, details, and examples and with beginning, middle, and end. [5.38E, 5.40E] Write narratives that include dialogue. [5.37E] Write summaries of non-fiction text. [2.5E, 6.4R] Write problem-solution essays with persuasive evidence for the solution. [5.39E]
Composition	6.6.2 6.6.5 6.6.A1	Use organizing techniques appropriate to the purpose for writing. [4.6E, 5.34E] Revise and edit first drafts. [5.31E, 6.1R] Write with clarity and express ideas concisely. [5.43E, 6.5R]
Conventions of English Language	7.6.1 7.6.2 7.6.3 7.6.4 7.6.5 7.7.1 7.8.1 7.8.3	Use correct verb tense consistently in writing. [5.2E, 5.5E, 5.6E] Identify and correct fragments and run-on sentences. [5.15E, 5.16E, 5.19E] Use semi-colons, colons, and apostrophes correctly. [5.13E, 5.18E, 5.26E] Use rules of capitalization. [5.20E] Spell frequently used words correctly, with special attention to roots, prefixes, and suffixes. [5.28E, 5.29E] Use correct subject/verb agreement in writing. [5.2E, 5.5E, 5.6E] Apply the rules of usage and grammar: verb forms, irregular verbs, homonyms, pronouns, pronoun case, and comparative/superlative adjectives. [5.2E, 5.4E, 5.5E, 5.7E] Recognize and correctly use internal and external punctuation. [5.9E, 5.17E, 5.21E, 5.27E]
Listening Skills	8.6.1 8.6.4	Identify tone, mood, and emotion from verbal and non-verbal communication. [6.5E, 7.8R] Follow multi-step directions to complete a task. [6.8E, 5.11R, 7.12R]
Speaking	9.6.3	Organize and deliver a "how to" speech in a logical sequence. [6.7E]
Discussing	10.6.2	Ask and answer questions to generate possible solutions to a problem. [6.2E, 7.4R]
Research & Study Skills	11.6.4	Record information using note-taking and organizational formats. [7.4E, 8.2R]

## Grade Seven Power Standards for Language Arts

Power Standards are based on the Nevada State Standards, ITBS, and the Nevada Criterion Referenced Test. Items are correlated to Reading and English courses.

For pacing of the CCSD Power Standards, please refer to the Guide for Benchmarks.

Strand	NV	CCSD Power Standards
Word Analysis	1.7.3	Apply knowledge of Greek- and Latin-derived roots and affixes to determine meanings of reading. [1.2E, 1.3R]
	1.7.5	Apply appropriate strategies to aid comprehension; use dictionaries and glossaries to verify meanings of unknown words. [1.4E, 2.3E, 1.6R]
	1.7.5	Identify and interpret literal and figurative language in text; use context clues to determine meanings of words. [1.1E, 1.3E, 1.4R, 1.7R]
Reading Process Skills and Strategies	2.7.3	Make inferences from text literary, informational, and persuasive text. [2.8E], 3.5R
Read to Comprehend, Interpret, and Evaluate Literature	3.7.1	Distinguish plot and subplot; analyze setting, characters, types of conflict, and foreshadowing. [3.5E – 3.9E, 4.2R – 4.4R]
	3.7.2	Compare/contrast the response of characters to events of the plot. [3.10E, 4.5R]
	3.7.3	Infer author's cultural/historical perspective with evidence from the text. [3.14E, 4.10R]
	3.7.4	Compare a variety of themes and cite textual evidence as support. [3.11E, 4.7R]
	3.7.5	Interpret examples of imagery and explain their sensory impact. [3.12E, 4.9R]
	3.7.6	Determine the effects of an author's use of point of view. [3.4E, 4.6R]
Read to Comprehend, Interpret, and Evaluate Informational Text	3.7.7	Identify characteristics of various literary forms. [3.2E, 4.1R]
	4.7.1	Compare/contrast features of consumer materials (warranty, contract, manual). [4.3E], 5.3R
	4.7.2	Identify and trace the development of an author's argument or viewpoint. [4.5E, 5.5R]
	4.7.3	Paraphrase and synthesize information from several sources. [4.10E, 5.13R, 8.4R]
	4.7.4	Assess the adequacy of evidence used to support an author's position. [5.8R]
	4.7.5	Identify unsupported inferences and propaganda techniques in text. [4.8E, 5.9R]
	4.7.6	Read and follow multi-step directions to complete a complex task. [4.12E, 5.10R]
	2.6.3	Identify main idea and differentiate from the supporting evidence or details. [4.6E, 3.7R]
4.7.A1	Interpret information in new context. [4.11E, 5.6R]	
Writing Genre	5.7.1	Write informative papers: multiple sources; opening, middle, conclusion. [5.39E, 6.2R]
	5.7.4	Write responses to literature that identify themes and provide examples. [5.42E, 6.5R]
	5.7.5	Write summaries of procedures (e.g., how to solve a math problem). [5.43E, 6.4R]
	5.7.6	Write position papers with persuasive evidence in support of a position. [4.40E, 6.3R]
Composition Skills	6.7.2	Select and use appropriate organizing techniques. [5.26E – 5.37E, 3.1R]
	6.7.3	Write compositions with a main topic and supporting examples/details. [5.29E – 5.39E, 6.2R]
	6.7.A1	Write with clarity and express ideas concisely. [5.45E, 6.6R]
Conventions of English Language	7.7.1	Use correct verb tense and subject/verb agreement in writing. [5.4E, 5.5E, 5.6E]
	7.7.2	Use varied sentence structure in writing (include complete sentences, correction of run-on sentences, use of conjunctions, correct word order). [5.9E, 5.11E – 5.16E]
	7.7.3	Identify use of hyphens and parentheses; use correct punctuation in complex sentences. [5.21E – 5.12E]
	7.7.4	Use rules of capitalization (name, title, date, holiday, place, organization/group, first word of sentence and quotation, salutation/closing in letters). [5.17E]
	7.7.5	Demonstrate correct spelling. [5.24E]
	7.12.1	Correctly use irregular plurals and homonyms; pronoun case, form, and number; nonstandard pronouns; comparative and superlative adjectives. [5.3E, 5.7E]
Listening Skills	7.8.3	Recognize and correctly use internal and external punctuation. [5.18E – 5.23E]
	8.7.1	Identify speaker's main ideas based upon verbal and non-verbal cues. [6.2E, 7.9R]
Speaking Skills	8.7.4	Follow multi-step oral directions to complete a task. [6.6E, 7.13R]
	9.7.1	Use specific and varied vocabulary; apply standard English to communicate ideas. [6.7E, 7.7R]
Discussion	9.7.3	Organize and deliver a persuasive speech. [6.9E]
	10.7.2	Distinguish relevant and irrelevant information to support an opinion. [6.13E, 7.4R]
Research & Study Skills	10.7.4	Develop logical arguments in support of opinions. [6.16E, 7.5R]
	11.7.4	Record information using note-taking or some other organizational strategy. [7.4E, 8.2R]

## Grade Eight Power Standards for Language Arts

Power Standards are based on the Nevada State Standards, ITBS, and the Nevada Criterion Referenced Test.  
For pacing of the CCSD Power Standards, please refer to the Guide for Benchmarks.

Strand	NV	Power Standards
Word Analysis	1.8.3	Apply knowledge of Greek and Latin roots and affixes to determine word meaning. [1.1]
	1.8.4	Apply knowledge of roots, structures, and context clues; use glossary and dictionary to comprehend new words. [1.1, 1.2]
	1.8.5	Analyze idioms, analogies, metaphors, and similes to infer meaning. [1.5]
Reading Skills and Strategies	2.8.3	Apply strategies such as locating essential information, verifying predictions, drawing conclusions, and making inferences to aid comprehension. [2.3, 2.4]
Read to Comprehend, Interpret, and Evaluate Literature	3.8.1	Evaluate story elements (e.g., character, plot, subplot, parallel episodes, and climax). [3.1 – 3.8]
	3.8.2	Make supported inferences and predictions about characters' motives and consequences (cause/effect). [3.10]
	3.8.3	Explain an author's view related to an historical/cultural context of author or work. [3.13]
	3.8.4	Distinguish theme from topic; find recurring themes, citing text evidence to support. [3.14 – 3.17]
	3.8.5	Analyze ways authors use imagery, figurative language, and sound. [3.18]
	3.8.6	Compare stylistic elements among texts to determine the effects of authors' choices. [3.19]
Read to Comprehend, Interpret, and Evaluate Informational Text	4.8.1 & 4.8.2	Use knowledge of text features and common expository structures such as cause/effect and compare/contrast to comprehend text. [4.1]
	4.8.3	Locate, interpret, organize, and synthesize information to answer questions and support ideas. [4.4]
	4.8.4	Assess the accuracy and adequacy of evidence that supports authors' ideas. [4.6]
	4.8.5	Summarize authors' ideas and information in texts. [4.9]
	4.8.6	Read and follow multi-step directions to complete a complex task. [4.10]
	2.6.3	Identify the main idea and differentiate that from the supporting evidence or details. [4.5]
	5.8.1	Write informative papers that develop a topic with introductory and concluding statements and supporting ideas. [5.34, 5.35]
Writing Genre	5.8.2	Write career and workplace communications. [5.39]
	5.8.3	Write narratives that reveal the writer's attitude toward the subject and employ strategies such as relevant dialogue and physical description. [5.33]
	5.8.4	Write responses to literature that demonstrate an understanding of the text and use evidence from the text in support. [5.37]
	5.8.5	Write summaries that present main ideas and key supporting details. [5.38]
	5.8.6	Write persuasive editorials or essays that state a thesis and arrange supporting details that effectively address reader concerns and counter-arguments. [5.36]
	Composition Skills	6.8.2
6.8.3		Write coherent compositions with a thesis statement and supporting evidence or details. [5.30]
6.8.A1		Write with clarity and express ideas concisely. [5.40]
Conventions of English Language	7.8.1	Apply the rules of usage and grammar such as subject/verb agreement, pronoun/antecedent agreement, verb tense, participles, and verb forms. [5.1 – 5.8]
	7.8.2	Use varied sentence structure, including complex sentences. [5.11 – 5.18]
	7.8.3	Recognize and correctly use internal and external punctuation. [5.18]
	7.8.4	Recognize and use correct capitalization. [5.19]
	7.8.5	Demonstrate conventional spelling. [5.20]
	7.12.1	Identify/correctly use irregular plurals and homonyms, pronoun form/case/number, comparative and superlative adjectives; identify and correct misuse of adjective, adverbs, or other modifiers. [5.3, 5.5, 5.8, 5.9, 5.10]
Listening Skills	8.8.1	Identify speaker's main ideas and supporting evidence. [6.1]
	8.8.4	Follow multi-step oral directions to complete a task. [6.4]
Speaking Skills	9.8.2	Use vocabulary and speaking techniques appropriate to audience and purpose. [6.6]
	9.8.5	Give clear and concise multi-step directions to complete a task. [6.9]
Discussion	10.8.2	Ask for and provide specific evidence in support of an opinion. [6.11]
	10.8.3	Apply agreed-upon rules and individual roles in a variety of discussion formats. [6.12]
Research & Study Skills	11.8.4	Record information using a variety of note-taking and organizational strategies. [7.5]
	11.12.2	Evaluate possible sources of information for credibility and usefulness. [7.3]

## Grade Nine Power Standards for Language Arts

Power Standards are based on the Nevada State Standards, ITBS, and the Nevada High School Proficiency Examination.  
For pacing of the CCSD Power Standards, please refer to the Guide for Benchmarks

Strand	NV	CCSD Power Standards
Word Analysis	1.8.4	Apply knowledge of context clues to comprehend new words in text.
	1.8.5	Analyze idioms, analogies, metaphors, and similes to infer literal and figurative meaning.
	1.12.5	Apply knowledge of Greek and Latin roots and affixes to determine word meaning.
	1.12.4	Discern subtle differences between closely related words; use references.
	1.12.5	Apply knowledge of syntax and analyze literary allusions in text.
Reading Skills and Strategies	2.8.3	Locate essential information, make and verify predictions, draw conclusions, and make inferences in literary, informational, and functional text.
	2.8.A1	Understand stated information and identify the literal meaning of words or phrases.
	2.8.A2	Apply information; interpret non-literal language.
Read to Comprehend, Interpret, and Evaluate Literature	3.12.1	Analyze character, plot, setting, theme, and point of view in any piece of literature.
	3.12.2	Make supported inferences; make predictions about plot, setting, characters, and theme.
	3.12.4	Use textual evidence to analyze theme or meaning of a selection.
	3.12.5	Analyze ways authors use imagery, figures of speech, and sound to elicit response.
	3.12.6	Analyze how irony, tone, mood, syntax, language, and sounds are used rhetorically and aesthetically.
Read to Comprehend, Interpret, and Evaluate Informational Text	4.12.1 & 4.12.2	Analyze use of text features and rhetorical strategies in primary source documents (policy statements, speeches, debates).
	4.12.3	Locate and synthesize multiple primary and secondary sources to support positions.
	4.12.4	Critique the power, logic, and appeal of arguments advanced in texts.
	4.12.6	Read and apply multi-step directions to complete complex procedures or tasks.
	4.12.A1	Identify the main idea and major points; make generalizations.
	4.12.A2	Identify author's purpose or viewpoint, fact vs. opinion, assumptions, or conclusions.
Writing Genre	5.8.3	Write narratives that reveal the writer's attitude toward the subject.
	5.12.1	Write a research paper using three or more sources, developing a thesis, and using a style manual.
	5.12.2	Produce subject-specific technical writing (shop manual or science field report).
	5.12.3	Write reflective texts that compare specific incidents and broader themes.
	5.12.4	Write responses to literature analyzing imagery, theme, stylistic devices, and tone.
	5.12.5	Write summaries or abstracts distilling large amounts of information into concise prose.
Composition Skills	6.12.2	Organize ideas through cause/effect, comparison/contrast to enhance central theme.
	6.12.3	Write compositions that present complex ideas in a compelling manner.
	6.12.4	Revise writing to improve word choice, organization, and point of view.
	6.12.5	Edit for use of standard English.
	6.12.A1	Select and use most logical or effective transitional, opening, and closing sentences.
	6.12.A2	Evaluate relevance of content.
	6.12.A3	Determine appropriate paragraphing.
	6.12.A4	Recognize and use most logical transitional words and phrases.
	6.12.A5	Recognize and use most appropriate diction.
6.12.A6	Select and use words and phrases that most enhance clarity, conciseness, and consistency of style.	
Conventions of English Language	7.12.1	Apply rules of usage/grammar: recognize correct verb, pronoun, and modifier forms and usage; maintain grammatical agreement; recognize idiomatic usage.
	7.12.2	Use correctly: modifiers, parallel structure, subordination and coordination; combine sentences; use correct verb tense; recognize complete sentences.
	7.12.3	Recognize and use correct punctuation.
	7.12.4	Recognize and use correct capitalization.
	7.12.5	Demonstrate conventional spelling; recognize misspelled words.
Listening Skills	8.12.1	Summarize and evaluate communications that inform, persuade, and entertain.
Speaking Skills	9.12.1	Use specific and varied vocabulary; apply standard English to communicate.
	9.12.4	Read aloud or recite literary, dramatic, and original works.
Discussion	10.12.4	Justify a position using logic and refuting opposing viewpoints.
Research & Study Skills	11.12.1	Formulate research questions and use a research design to gather information.
	11.12.2	Evaluate possible sources of information for credibility and usefulness.
	11.12.3	Cite sources of information using a standard form of documentation.

## Grade Ten Power Standards for Language Arts

Power Standards are based on the Nevada State Standards, ITBS, and the Nevada High School Proficiency Examination.

For pacing of the CCSD Power Standards, please refer to the Guide for Benchmarks.

Strand	NV	CCSD Power Standards
Word Analysis	1.8.4	Apply knowledge of context clues to comprehend new words in text.
	1.8.5	Analyze idioms, analogies, metaphors, and similes to infer literal and figurative meaning.
	1.12.3	Apply knowledge of Greek and Latin roots and affixes to determine word meaning.
	1.12.4	Discern subtle differences between closely related words; use references.
	1.12.5	Apply knowledge of syntax and analyze literary allusions in text.
Reading Skills and Strategies	2.8.3	Locate essential information, make and verify predictions, draw conclusions, and make inferences in literary, informational, and functional text.
	2.8.A1	Understand stated information and identify the literal meaning of words or phrases.
	2.8.A2	Apply information; interpret non-literal language.
Read to Comprehend, Interpret, and Evaluate Literature	3.12.1	Analyze character, plot, setting, theme, and point of view in any piece of literature.
	3.12.2	Make supported inferences; make predictions about plot, setting, characters, and theme.
	3.12.4	Use textual evidence to analyze theme or meaning of a selection.
	3.12.5	Analyze ways authors use imagery, figures of speech, and sound to elicit response.
	3.12.6	Analyze how irony, tone, mood, syntax, language sounds are used rhetorically and aesthetically.
	3.12.7	Analyze the effects of an author's choice of literary form.
Read to Comprehend, Interpret, and Evaluate Informational Text	4.12.1 & 4.12.2	Analyze use of text features and rhetorical strategies in primary source documents (policy statements, speeches, debates).
	4.12.3	Locate and synthesize multiple primary and secondary sources to support positions.
	4.12.4	Critique the power, logic, and appeal of arguments advanced in texts.
	4.12.6	Read and apply multi-step directions to complete complex procedures or tasks.
	4.12.A1	Identify the main idea and major points; make generalizations.
	4.12.A2	Identify author's purpose or viewpoint, fact vs. opinion, assumptions, or conclusions.
Writing Genre	5.8.3	Write narratives that reveal the writer's attitude toward the subject.
	5.12.1	Write a research paper using five or more sources, developing a thesis, and using a style manual.
	5.12.2	Produce subject-specific technical writing (shop manual or science field report).
	5.12.3	Write reflective texts that compare specific incidents and broader themes.
	5.12.4	Write responses to literature analyzing imagery, theme, stylistic devices, and tone.
	5.12.5	Write summaries or abstracts distilling large amounts of information into concise prose.
	5.12.6	Write persuasive texts: defend a position with clear evidence; use rhetorical devices.
Composition Skills	6.12.2	Organize ideas through cause/effect, compare/contrast to enhance central theme.
	6.12.3	Write compositions that present complex ideas in a compelling manner.
	6.12.4	Revise writing to improve word choice, organization, and point of view.
	6.12.5	Edit for use of standard English; recognize most appropriate diction.
	6.12.A1	Select most logical or effective transitional, opening, and closing sentences.
	6.12.A2	Evaluate and use relevant content.
	6.12.A3	Recognize and use most logical transitional words and phrases.
	6.12.A4	Select and use words and phrases that most enhance clarity, conciseness, and consistency of style.
Conventions of English Language	7.12.1	Apply rules of usage/grammar: recognize correct verb, pronoun, and modifier forms and usage; maintain grammatical agreement; recognize idiomatic usage.
	7.12.2	Use correctly: modifiers, parallel structure, subordination and coordination; combine sentences; use correct verb tense.
	7.12.3	Recognize and use correct punctuation.
	7.12.4	Recognize and use correct capitalization.
	7.12.5	Demonstrate conventional spelling; recognize misspelled words.
Listening Skills	8.12.1	Summarize and evaluate communications that inform, persuade, and entertain.
Speaking Skills	9.12.1	Use specific and varied vocabulary; apply standard English to communicate.
	9.12.4	Read aloud or recite literary, dramatic, and original works.
Discussion	10.12.4	Justify a position using logic and refuting opposing viewpoints.
Research & Study Skills	11.12.1	Formulate research questions and use a research design to gather information.
	11.12.2	Evaluate possible sources of information for credibility and usefulness.
	11.12.3	Cite sources of information using a standard form of documentation.

## Grade Eleven Power Standards for Language Arts

Power Standards are based on the Nevada State Standards, ITBS, and the Nevada High School Proficiency Examination.

For pacing of the CCSD Power Standards, please refer to the Guide for Benchmarks.

Strand	NV	CCSD Power Standards
Word Analysis	1.8.4	Apply knowledge of context clues to comprehend new words in text.
	1.8.5	Analyze idioms, analogies, metaphors, and similes to infer literal and figurative meaning.
	1.12.3	Apply knowledge of Greek and Latin roots and affixes to determine word meaning.
	1.12.4	Discern subtle differences between closely related words; use references.
	1.12.5	Apply knowledge of syntax and literary allusions to understand word meaning.
Reading Skills and Strategies	2.8.3	Locate essential information, make and verify predictions, draw conclusions, and make inferences in literary, informational, and functional text.
	2.8.A1	Determine main ideas in various types of reading selections.
Read to Comprehend, Interpret, and Evaluate Literature	3.12.1	Analyze character, plot, setting, theme, and point of view in any piece of literature.
	3.12.2	Make supported inferences, make predictions about plot, setting, characters, and theme.
	3.12.4	Use textual evidence to analyze the theme or the meaning of a selection.
	3.12.5	Analyze ways authors use imagery, figures of speech, and sound to elicit response.
	3.12.6	Analyze how irony, tone, mood, syntax, and language sounds are used rhetorically and aesthetically.
Read to Comprehend, Interpret, and Evaluate Informational Text	4.12.1 &	Analyze use of text features and rhetorical strategies in primary source documents (policy statements, speeches, debates, diaries, platforms). Locate and synthesize multiple primary and secondary sources to support positions. Critique the power, logic, and appeal of arguments advanced in texts. Read and apply multi-step directions to complete complex procedures or tasks.
	4.12.2	
	4.12.3	
	4.12.4	
	4.12.6	
Writing Genre	5.8.3	Write narratives that reveal the writer's attitude toward the subject.
	5.12.1	Write a research paper using five or more sources, developing a thesis, and using a style manual.
	5.12.2	Produce subject-specific technical writing (shop manual or science field report).
	5.12.3	Write reflective texts that compare specific incidents and broader themes.
	5.12.4	Write responses to literature that analyzing imagery, theme, stylistic devices, and tone.
	5.12.5	Write summaries or abstracts distilling large amounts of information into concise prose.
	5.12.6	Write persuasive texts that defend positions with precise and relevant evidence; use rhetorical devices.
Composition Skills	6.12.2	Organize ideas through cause/effect or comparison/contrast to enhance central theme.
	6.12.3	Write compositions that present complex ideas in a compelling manner.
	6.12.4	Revise writing to improve word choice, organization, and point of view.
	6.12.5	Edit for use of standard English.
	Conventions of English Language	7.12.1&
7.12.2		
7.12.3		
7.12.4		
7.12.5		
Listening Skills	8.12.1	Summarize and evaluate communications that inform, persuade, or entertain.
	8.12.3	Analyze the effect of language and dialect on audience response.
Speaking Skills	9.12.1	Use specific and varied vocabulary; apply standard English to communicate.
	9.12.4	Read aloud or recite literary, dramatic, and original works.
Discussion	10.12.1	Participate in discussion by identifying, synthesizing, and evaluating data.
	10.12.4	Justify a position using logic and refuting opposing viewpoints.
Research & Study Skills	11.12.1	Formulate research questions and use a research design to gather information.
	11.12.3	Evaluate possible sources of information for credibility and usefulness.
	11.12.3	Cite sources of information using a standard form of documentation.

## Grade Twelve Power Standards for Language Arts

Power Standards are based on the Nevada State Standards, ITBS, and the Nevada High School Proficiency Examination.  
For pacing of the CCSD Power Standards, please refer to the Guide for Benchmarks.

Strand	NV	CCSD Power Standards
Word Analysis and Decoding	1.8.4	Apply knowledge of context clues to comprehend new words in text.
	1.8.5	Analyze idioms, analogies, metaphors, and similes to infer literal and figurative meaning.
	1.12.3	Apply knowledge of Greek and Latin roots and affixes to determine word meaning.
	1.12.4	Discern subtle differences between closely related words; use references.
	1.12.5	Apply knowledge of syntax and analyze literary allusions in text.
Reading Skills and Strategies	2.8.3	Locate essential information, make and verify predictions, draw conclusions, and make inferences in literary, informational, and functional text.
	2.8.A1	Determine main ideas in various types of reading selections.
Read to Comprehend, Interpret, and Evaluate Literature	3.12.1	Analyze character, plot, setting, theme, and point of view in any piece of literature.
	3.12.2	Make supported inferences; make predictions about plot, setting, characters, and theme.
	3.12.4	Use textual evidence to analyze the theme or the meaning of a selection.
	3.12.5	Analyze ways authors use imagery, figures of speech, and sound to elicit response.
	3.12.6	Analyze how irony, tone, mood, syntax, language, and sounds are used rhetorically and aesthetically.
Read to Comprehend, Interpret, and Evaluate Informational Text	4.12.1 & 4.12.2	Analyze use of text features and rhetorical strategies in primary source documents (policy statements, speeches, debates, diaries, platforms).
	4.12.3	Locate and synthesize multiple primary and secondary sources to support positions.
	4.12.4	Critique the power, logic, and appeal of arguments advanced in texts.
	4.12.5	Read and apply multi-step directions to complete complex procedures or tasks.
Writing Genre	5.8.3	Write narratives that reveal the writer's attitude toward the subject.
	5.12.1	Write a research paper using seven or more sources, developing a thesis, and using a style manual.
	5.12.2	Produce subject-specific technical writing (shop manual or science field report).
	5.12.3	Write reflective texts that compare specific incidents and broader themes.
	5.12.4	Write responses to literature analyzing imagery, theme, stylistic devices, and tone.
	5.12.5	Write summaries or abstracts distilling a large amount of information into concise prose.
	5.12.6	Write persuasive texts that defend positions with precise and relevant evidence; use specific rhetorical devices.
Composition Skills	6.12.2	Organize ideas through cause/effect or comparison/contrast to enhance central theme.
	6.12.3	Write compositions that present complex ideas in a compelling manner.
	6.12.4	Revise writing to improve word choice, organization, and point of view.
	6.12.5	Edit for use of standard English.
Conventions of English Language	7.12.1	Apply the rules of grammar, usage, and mechanics in writing.
	7.12.2	Use varied sentence structure in writing for stylistic effect.
	7.12.3	Use rules of punctuation; manipulate conventions for emphasis in writing.
	7.12.4	Use rules of capitalization.
	7.12.5	Demonstrate conventional spelling; recognize misspelled words.
Listening Skills	8.12.1	Summarize and evaluate communications that inform, persuade, and entertain.
	8.12.3	Analyze the effect of language and dialect on audience response.
Speaking Skills	9.12.1	Use specific and varied vocabulary; apply standard English to communicate.
	9.12.4	Read aloud or recite literary, dramatic, and original works.
Discussion	10.12.1	Participate in discussion by identifying, synthesizing, and evaluating data.
	10.12.4	Justify a position using logic and refuting opposing viewpoints.
Research & Study Skills	11.12.1	Formulate research questions and use a research design to gather information.
	11.12.2	Evaluate possible resources for credibility and usefulness.
	11.12.3	Cite sources of information using a standard form of documentation.

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**POWER STANDARDS**  
**MATHEMATICS**  
**K-12**

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## Kindergarten Power Standards for Mathematics

Power standards include skills required for ITBS "backward mapped" to kindergarten.  
For pacing of the CCSD Power Standards, please refer to the Guide for Benchmarks.

Strand	NV	CCSD Power Standards
Numbers, Number Sense, and Computation	1.K.3	Recognize, read, and write numbers from 0 - 10. [1.1] Identify ordinal positions first to third. [1.2] Match the number of objects in a set to the correct numeral 0 - 10. [1.3] Recognize relationships of more than, less than, and equal to. [1.4]
	1.K.4	Count to 20 by demonstrating one-to-one correspondence using objects. [1.6]
	1.K.5	Use concrete objects to model simple addition and subtraction. [1.7]
Patterns, Functions, and Algebra	2.K.1	Identify attributes used to sort objects. [2.1]
	2.K.3	Identify and create sets of objects with unequal amounts, describing them as greater than or less than. [2.4]
Measurement	3.K.1	Compare, order, and describe objects by size. [3.1]
	3.K.4	Identify and sort pennies, nickels and dimes. [3.2]
	3.K.6	Recite in order the days of the week. [3.4]
Spatial Relationships, Geometry, and Logic	4.K.1	Identify two-dimensional shapes (circles, triangles, rectangles including squares) regardless of orientation. [4.1]
	4.K.2	Demonstrate an understanding of relative position words, including before/after, far/near, and over/under, to place objects. [4.2]
	4.K.3	Identify two-dimensional figures (windows are shaped like rectangles) as they appear in the environment. [4.3]
	4.K.4	Identify three-dimensional figures in the environment [4.4]
Data Analysis	5.K.1	Collect, organize, and record data using objects and pictures. [5.1] Represent data in a variety of ways in response to questions posed by teachers. [5.2]
Problem Solving	A	Students will develop their ability to solve problems by engaging in developmentally appropriate opportunities where there is a need to use various approaches to investigate and understand mathematical concepts. Students will do this in order to formulate their own problems, apply previous experiences and knowledge to new problems, explain and verify results, try more than one strategy in problem solving, and use technology, including calculators to develop mathematical concepts.
Mathematical Communication	B	Students will develop their ability to communicate mathematically by solving problems where there is a need to obtain information from the real world through reading, listening, and observing. Students will do this in order to use inquiry techniques, physical materials, models, pictures, or writing to represent mathematical ideas. Students will identify and translate key words that imply mathematical operations, and use everyday language, both orally and in writing, to communicate strategies and solutions to mathematical problems.
Mathematical Reasoning	C	Students will develop their ability to reason mathematically by solving problems where there is a need to investigate mathematical ideas and construct their own learning in all content areas. Students will do this in order to draw logical conclusions, discuss the steps used to solve a mathematical problem, and justify and explain the solutions to problems using physical models.
Mathematical Connections	D	Students will develop the ability to make mathematical connections by solving problems where there is a need to view mathematics as an integrated whole. Students will do this in order to apply mathematical thinking and modeling to solve problems that arise in other disciplines and view mathematics as an integrated whole in order to identify mathematics used in everyday life.

## Grade One Power Standards for Mathematics

Power standards include skills required for ITBS “backward mapped” to kindergarten.  
For pacing of the CCSD Power Standards, please refer to the Guide for Benchmarks.

Strand	NV	CCSD Power Standards
<b>Numbers, Number Sense, and Computation</b>	1.1.1	Identify, model, read, and write place value positions of 1’s and 10’s. [1.1] Identify the value of a given digit in the 1’s and 10’s place. [1.2]
	1.1.2	Identify and model a whole. [1.3] Identify and model 1/2 as two equal parts of a whole or a set of objects. [1.4]
	1.1.3	Read, write, compare and order numbers from 0 - 100. [1.5] Identify ordinal positions first to tenth. [1.6] Read and write number words to 10. [1.7] Create, compare, and describe sets of objects and numbers from 0 – 100 as greater than, less than, or equal to (>, <, =). [1.8]
	1.1.4	Use number patterns and models to count by 2’s, 5’s, and 10’s to 100. [1.11]
	1.1.5	Identify and model basic addition facts (sums to 10) and the corresponding subtraction facts. [1.12]
	1.1.6	Estimate the number of objects in a set to 10 and verify by counting. [1.14]
	1.1.8	Demonstrate the joining and separating of sets with 20 or fewer objects. [1.16] Model the meaning of addition and subtraction in a variety of ways including the comparison of sets using objects, pictorial representations, and symbols. [1.17] Use mathematical vocabulary and symbols to describe addition, subtraction, and equality. [1.18]
	<b>Patterns, Functions, and Algebra</b>	2.1.1
2.1.2		Recognize that unknowns in an addition or subtraction equation represent a missing value that will make the statement true. [2.4]
2.1.3		Create, compare, and describe sets of objects as greater than, less than, or equal to. [2.5]
<b>Measurement</b>	3.1.1	Compare, order, describe, and represent objects by length and weight. [3.1]
	3.1.2	Compare and measure length and weight using non-standard measurement. [3.2]
	3.1.4	Determine the value of any set of pennies, nickels, and dimes. [3.4]
	3.1.6	Recite in order the months of the year. [3.6] Use a calendar to identify days, weeks, months, and a year. [3.7] Read time to the nearest hour. [3.8]
<b>Spatial Relationships, Geometry, and Logic</b>	4.1.1	Name, sort, and sketch two-dimensional shapes (circles, triangles, rectangles including squares) regardless of orientation. [4.1]
	4.1.2	Demonstrate an understanding of position words, including down/up, left/right, top/bottom, and between/middle, by describing the relative location of objects. [4.2]
	4.1.3	Identify and copy two-dimensional designs that contain a line of symmetry. [4.3]
	4.1.4	Identify and name three-dimensional figures in the environment. [4.4]
<b>Data Analysis</b>	5.1.1	Collect, organize, and record data in response to questions posed by teacher and/or students. [5.1] Use tally marks to represent data. [5.2]
<b>Problem Solving</b>	A	Students will develop their ability to solve problems by engaging in developmentally appropriate opportunities where there is a need to use various approaches to investigate and understand mathematical concepts. Students will do this in order to formulate their own problems, apply previous experiences and knowledge to new problems, explain and verify results, try more than one strategy in problem solving, and use technology, including calculators to develop mathematical concepts.
<b>Mathematical Communication</b>	B	Students will develop their ability to communicate mathematically by solving problems where there is a need to obtain information from the real world through reading, listening, and observing. Students will do this in order to use inquiry techniques, physical materials, models, pictures, or writing to represent mathematical ideas. Students will identify and translate key words that imply mathematical operations, and use everyday language, both orally and in writing, to communicate strategies and solutions to mathematical problems.
<b>Mathematical Reasoning</b>	C	Students will develop their ability to reason mathematically by solving problems where there is a need to investigate mathematical ideas and construct their own learning in all content areas. Students will do this in order to draw logical conclusions, discuss the steps used to solve a mathematical problem, and justify and explain the solutions to problems using physical models.
<b>Mathematical Connections</b>	D	Students will develop the ability to make mathematical connections by solving problems where there is a need to view mathematics as an integrated whole. Students will do this in order to apply mathematical thinking and modeling to solve problems that arise in other disciplines and view mathematics as an integrated whole in order to identify mathematics used in everyday life.

## Grade Two Power Standards for Mathematics

Power standards include skills required for ITBS "backward mapped" to kindergarten.  
For pacing of the CCSD Power Standards, please refer to the Guide for Benchmarks.

Strand	NV	CCSD Power Standards
Numbers, Number Sense, and Computation	1.2.1	Identify, use, and model place value positions of 1's, 10's, and 100's. [1.1] Identify the value of a given digit in the 1's, 10's, and 100's place. [1.2]
	1.2.2	Identify equal parts of a whole. [1.3]
	1.2.3	Identify and model the unit fractions $\frac{1}{2}$ and $\frac{1}{4}$ as equal parts of a whole or sets of objects. [1.4]
		Read, write, compare, and order numbers from 0 - 999. [1.5] Identify ordinal positions first to twentieth. [1.6] Read and write number words to 20. [1.7] Create, compare, and describe sets of objects and numbers from 0 - 999 as greater than, less than, or equal to (>, <, =). [1.8]
	1.2.5	Identify and model basic addition facts (sums to 18) and the corresponding subtraction facts. [1.11] Immediately recall basic addition facts (sums to 18) and the corresponding subtraction facts. [1.12]
	1.2.6	Estimate the number of objects in a set to 20 and verify by counting. [1.13]
	1.2.7	Add and subtract one- and two- digit numbers without regrouping. [1.15]
	1.2.8	Generate and solve one-step addition and subtraction problems based on practical situations. [1.16] Model addition and subtraction in a variety of ways using pictorial representations and symbols to illustrate subtraction of sets, comparison of sets, and missing addends. [1.17] Reinforce the use of mathematical vocabulary and symbols to describe addition, subtraction, and equality. [1.18]
Patterns, Functions, and Algebra	2.2.1	Recognize, describe, extend, and create repeating and increasing patterns using symbols, objects, and manipulatives. [2.2] Use patterns and their extensions to solve problems. [2.3]
	2.2.2	Model, explain, and identify missing operations and missing numbers in open number sentences involving number facts in addition and subtraction. [2.4]
	2.2.3	Complete number sentences with the appropriate words and symbols (+, -, =). [2.5] Represent mathematical situations using numbers, symbols, and words. [2.6]
Measurement	3.2.1	Compare, order, and describe objects by various measurable attributes for length, weight, and temperature. [3.2]
	3.2.2	Compare objects to standard whole units to find objects that are greater than, less than, and /or equal to a given unit. [3.3]
	3.2.4	Determine the value of any given set of coins. [3.4] Use decimals to show money amounts. [3.6] Recognize equivalent combinations of coins. [3.7]
		3.2.6
Spatial Relationships, Geometry, and Logic	4.2.1	Describe, sketch, and compare two-dimensional shapes regardless of orientation. [4.1]
	4.2.2	Identify congruent and similar shapes (circles, triangles, and rectangles including squares). [4.3]
	4.2.3	Identify figures with symmetry as they appear in the environment. [4.4]
	4.2.4	Identify, name, sort, and describe two- and three-dimensional geometric figures and objects including circle/sphere and square/cube. [4.6]
Data Analysis	5.2.1	Collect, record, and classify data in response to questions posed by teacher and/or students. [5.2] Use tables, pictographs, and bar graphs to represent data. [5.3]
Problem Solving	A	Students will develop their ability to solve problems by engaging in developmentally appropriate opportunities where there is a need to use various approaches to investigate and understand mathematical concepts. Students will do this in order to formulate their own problems, apply previous experiences and knowledge to new problems, explain and verify results, try more than one strategy in problem solving, and use technology, including calculators to develop mathematical concepts.
Mathematical Communication	B	Students will develop their ability to communicate mathematically by solving problems where there is a need to obtain information from the real world through reading, listening, and observing. Students will do this in order to use inquiry techniques, physical materials, models, pictures, or writing to represent mathematical ideas. Students will identify and translate key words that imply mathematical operations, and use everyday language, both orally and in writing, to communicate strategies and solutions to mathematical problems.
Mathematical Reasoning	C	Students will develop their ability to reason mathematically by solving problems where there is a need to investigate mathematical ideas and construct their own learning in all content areas. Students will do this in order to draw logical conclusions, discuss the steps used to solve a mathematical problem, and justify and explain the solutions to problems using physical models.
Mathematical Connections	D	Students will develop the ability to make mathematical connections by solving problems where there is a need to view mathematics as an integrated whole. Students will do this in order to apply mathematical thinking and modeling to solve problems that arise in other disciplines and view mathematics as an integrated whole in order to identify mathematics used in everyday life.

## Grade Three Power Standards for Mathematics

Based on the Nevada State Standards, ITBS, and the Nevada Criterion Referenced Examination.  
For pacing of the CCSD Power Standards, please refer to the Guide for Benchmarks.

Strand	NV	CCSD Power Standards
Numbers, Number Sense, and Computation	1.3.1	Identify, use, and model place value positions of 1's, 10's, 100's, and 1,000's <i>and beyond</i> . [1.1] Identify the value of a given digit in the 1's, 10's, 100's, and 1,000's place. [1.2]
	1.3.2	Identify and model the unit fractions $\frac{1}{2}$ , $\frac{1}{3}$ , $\frac{1}{4}$ , $\frac{1}{6}$ , and $\frac{1}{8}$ as equal parts of a whole or sets of objects. [1.5]
	1.3.3	Read, write, compare, and order numbers from 0 - 9,999. [1.7] Read and write number words to 100. [1.8]
	1.3.5	Immediately recall and use addition and subtraction facts. [1.13] Immediately recall multiplication facts (products to 81). [1.14]
	1.3.7	Add and subtract two- and three- digit numbers with and without regrouping. [1.19]
		Add and subtract decimals using money as a model. [1.22]
	1.3.8	Generate and solve two-step addition and subtraction problems and one-step multiplication problems based on practical situations. [1.26] Model addition, subtraction, multiplication, and division in a variety of ways. [1.24] Use mathematical vocabulary and symbols to describe multiplication and division. [1.27]
	Patterns, Functions, and Algebra	2.3.1
2.3.2		Model, explain, and solve open number sentences involving addition, subtraction, and multiplication facts. [2.5] Use variables and open sentences to express relationships. [2.6]
2.3.3		Complete number sentences with the appropriate words and symbols (+, -, >, <, =). [2.7]
Measurement	3.3.1	Compare, order, and describe objects by various measurable attributes for area and volume/capacity. [3.3]
	3.3.2	Select and use appropriate units of measure. [3.6] Measure to a required degree of accuracy (to the nearest $\frac{1}{2}$ unit). [3.5]
	3.3.4	Determine possible combinations of coins and bills to equal given amounts. [3.9] Read, write, and use monetary notation. [3.10] Recognize equivalent relationships between and among bills and coins. [3.11]
	3.3.6	Tell time to the nearest minute, using analog and digital clocks. [3.12] Use elapsed time in half-hour increments, beginning on the hour or half-hour, to determine start, end, and elapsed time. [3.13] Recognize that there are 60 minutes in 1 hour. [3.14]
Spatial Relationships, Geometry, and Logic	4.3.1	Describe, sketch, compare, and contrast plane geometric figures. [4.1]
	4.3.2	Demonstrate and describe the transformational motions of geometric figures (translation/slide, reflection/flip, and rotation/turn). [4.2]
	4.3.3	Create two-dimensional designs that contain a line of symmetry. [4.5]
	4.3.4	Compare, contrast, sketch, model and build two- and three-dimensional geometric figures and objects. [4.6]
	4.3.6 4.3.9	Identify, draw, and describe horizontal, vertical, and oblique lines. [4.7] Use the quantifiers all, some, and none to describe the characteristics of a set. [4.8]
Data Analysis	5.3.1	Pose questions that can be used to guide data collection, organization, and representation. [5.1] Use graphical representations, including number lines, frequency tables, and pictographs to represent data. [5.2]
	5.3.5	Use informal concepts of probability (certain, likely, unlikely, impossible) to make predictions about future events. [5.4]
Problem Solving	A	Students will develop their ability to solve problems by engaging in developmentally appropriate opportunities where there is a need to use various approaches to investigate and understand mathematical concepts. Students will do this in order to formulate their own problems, apply previous experiences and knowledge to new problems, explain and verify results, try more than one strategy in problem solving, and use technology, including calculators to develop mathematical concepts.
Mathematical Communication	B	Students will develop their ability to communicate mathematically by solving problems where there is a need to obtain information from the real world through reading, listening, and observing. Students will do this in order to use inquiry techniques, physical materials, models, pictures, or writing to represent mathematical ideas. Students will identify and translate key words that imply mathematical operations, and use everyday language, both orally and in writing, to communicate strategies and solutions to mathematical problems.
Mathematical Reasoning	C	Students will develop their ability to reason mathematically by solving problems where there is a need to investigate mathematical ideas and construct their own learning in all content areas. Students will do this in order to draw logical conclusions, discuss the steps used to solve a mathematical problem, and justify and explain the solutions to problems using physical models.
Mathematical Connections	D	Students will develop the ability to make mathematical connections by solving problems where there is a need to view mathematics as an integrated whole. Students will do this in order to apply mathematical thinking and modeling to solve problems that arise in other disciplines and view mathematics as an integrated whole in order to identify mathematics used in everyday life.

## Grade Four Power Standards for Mathematics

Based on the Nevada State Standards, ITBS, and the Nevada Criterion Referenced Examination.  
For pacing of the CCSD Power Standards, please refer to the Guide for Benchmarks.

Strand	NV	CCSD Power Standards
<b>Numbers, Number Sense, and Computation</b>	1.4.1	Identify and use place value positions of whole numbers to one million. [1.1]
	1.4.2	Identify fractions and compare fractions with like denominators using models, drawings, and numbers. [1.6]
	1.4.7	Add and subtract multi-digit numbers. [1.18] Multiply and divide multi-digit numbers by a one-digit whole number with regrouping, including monetary amounts as decimals. [1.19]
	1.4.8	Generate and solve addition, subtraction, multiplication, and division problems using whole numbers in practical situations. [1.27]
<b>Patterns, Functions, and Algebra</b>	2.4.1	Identify, describe, and represent patterns and relationships in the number system including arithmetic and geometric sequences. [2.2]
	2.4.2	Model, explain, and solve open number sentences involving addition, subtraction, multiplication, and division. [2.4]
	2.4.3	Select the solution to an equation from a given set of numbers. [2.3] Complete number sentences with the appropriate words and symbols (+, -, ×, ÷, >, <, =). [2.5]
<b>Measurement</b>	3.4.1	Estimate and convert units of measure for length, area, and weight within the same measurement system (customary and metric). [3.1] Estimate temperature in practical situations. [3.2]
	3.4.2	Measure length, area, temperature, and weight to a required degree of accuracy in customary and metric systems. [3.5]
	3.4.4	Determine totals for monetary amounts in practical situations. [3.7]
	3.4.6	Use money notation to add and subtract given monetary amounts. [3.8] Use A.M. and P.M. appropriately in describing time. [3.11] Use elapsed time in quarter-hour increments, beginning on the quarter-hour, to determine start, end, and elapsed time. [3.9] Recognize the number of weeks in a year, days in a year, and days in a month. [3.10]
	3.4.6	Use A.M. and P.M. appropriately in describing time. [3.11] Use elapsed time in quarter-hour increments, beginning on the quarter-hour, to determine start, end, and elapsed time. [3.9] Recognize the number of weeks in a year, days in a year, and days in a month. [3.10]
<b>Spatial Relationships, Geometry, and Logic</b>	4.4.1	Identify, draw, and classify angles, including straight, right, obtuse, and acute. [4.1]
	4.4.2	Identify shapes that are congruent, similar, and/or symmetrical using a variety of methods including transformational motions. [4.3]
	4.4.3	Identify coordinates for a given point in the first quadrant. [4.5]
	4.4.4	Locate points of given coordinates on a grid in the first quadrant. [4.6]
	4.4.6	Identify, describe, and classify two- and three-dimensional figures by relevant properties including the number of vertices, edges, and faces using models. [4.7] Identify, draw, label, and describe points, line segments, rays, and angles. [4.9]
<b>Data Analysis</b>	5.4.1	Pose questions that can be used to guide the collection of categorical and numerical data. [5.1] Organize and represent data using a variety of graphical representations including frequency tables and line plots. [5.2]
	5.4.3	Interpret data and make predictions using frequency tables and line plots. [5.6]
<b>Problem Solving</b>	A	Students will develop their ability to solve problems by engaging in developmentally appropriate opportunities where there is a need to use various approaches to investigate and understand mathematical concepts. Students will do this in order to formulate their own problems, apply previous experiences and knowledge to new problems, explain and verify results, try more than one strategy in problem solving, and use technology, including calculators to develop mathematical concepts.
<b>Mathematical Communication</b>	B	Students will develop their ability to communicate mathematically by solving problems where there is a need to obtain information from the real world through reading, listening, and observing. Students will do this in order to use inquiry techniques, physical materials, models, pictures, or writing to represent mathematical ideas. Students will identify and translate key words that imply mathematical operations, and use everyday language, both orally and in writing, to communicate strategies and solutions to mathematical problems.
<b>Mathematical Reasoning</b>	C	Students will develop their ability to reason mathematically by solving problems where there is a need to investigate mathematical ideas and construct their own learning in all content areas. Students will do this in order to draw logical conclusions, discuss the steps used to solve a mathematical problem, and justify and explain the solutions to problems using physical models.
<b>Mathematical Connections</b>	D	Students will develop the ability to make mathematical connections by solving problems where there is a need to view mathematics as an integrated whole. Students will do this in order to apply mathematical thinking and modeling to solve problems that arise in other disciplines and view mathematics as an integrated whole in order to identify mathematics used in everyday life.

## Grade Five Power Standards for Mathematics

Based on the Nevada State Standards, ITBS, and the Nevada Criterion Referenced Examination.  
For pacing of the CCSD Power Standards, please refer to the Guide for Benchmarks.

Strand	NV	CCSD Power Standards
Numbers, Number Sense, and Computation	1.5.1	Identify and use place value positions of whole numbers and decimals to hundredths. [1.1]
	1.5.2	Add and subtract fractions with like denominators using models, drawings, and numbers. [1.7] Compare fractions with unlike denominators using models and drawings, and by finding common denominators. [1.7] Identify, model, and compare improper fractions and mixed numbers. [1.8]
	1.5.5	Use multiples of 10 to expand knowledge of basic multiplication and division facts. [1.13]
	1.5.7	Add and subtract decimals. [1.16] Multiply and divide decimals by whole numbers in problems representing practical situations. [1.18]
		Use order of operations to evaluate expressions with whole numbers. [1.17]
	1.5.8	Generate and solve addition, subtraction, multiplication, and division problems using whole numbers and decimals in practical situations. [1.19]
Patterns, Functions, and Algebra	2.5.2	Find possible solutions to an inequality involving a variable using whole numbers as a replacement set. [2.2] Solve equations with whole numbers using a variety of methods, including inverse operations, mental math, and guess and check. [2.4]
	2.5.3	Complete number sentences with the appropriate words and symbols including $\geq$ , $\leq$ and $\neq$ . [2.5]
Measurement	3.5.1	Estimate and convert units of measure for weight and volume/capacity within the same measurement system (customary and metric). [3.1]
	3.5.4	Determine totals, differences, and change due for monetary amounts in practical situations. [3.7]
	3.5.6	Determine equivalent periods of time, including relationships between and among seconds, minutes, hours, days, months, and years. [3.8]
Spatial Relationships, Geometry, and Logic	4.5.3	Graph coordinates representing geometric shapes in the first quadrant. [4.4]
	4.5.4	Predict and describe the effects of combining, dividing, and changing shapes into other shapes. [4.5]
	4.5.6	Identify, draw, label, and describe planes, parallel lines, intersecting lines, and perpendicular lines. [4.7]
Data Analysis	5.5.1	Pose questions that can be used to guide the collection of categorical and numerical data. [5.2]
		Organize and represent data using a variety of graphical representations including stem-and-leaf plots and histograms. [5.1]
	5.5.2	Compute range. [5.5] Model and compute the measures of central tendency for mean, median, and mode. [5.4]
	5.5.3	Interpret data and make predictions using stem-and-leaf plots and histograms. [5.3]
	5.5.4	Represent and solve problems involving combinations using a variety of methods. [5.7]
Problem Solving	A	Students will develop their ability to solve problems by engaging in developmentally appropriate opportunities where there is a need to use various approaches to investigate and understand mathematical concepts. Students will do this in order to formulate their own problems, apply previous experiences and knowledge to new problems, explain and verify results, try more than one strategy in problem solving, and use technology, including calculators to develop mathematical concepts.
Mathematical Communication	B	Students will develop their ability to communicate mathematically by solving problems where there is a need to obtain information from the real world through reading, listening, and observing. Students will do this in order to use inquiry techniques, physical materials, models, pictures, or writing to represent mathematical ideas. Students will identify and translate key words that imply mathematical operations, and use everyday language, both orally and in writing, to communicate strategies and solutions to mathematical problems.
Mathematical Reasoning	C	Students will develop their ability to reason mathematically by solving problems where there is a need to investigate mathematical ideas and construct their own learning in all content areas. Students will do this in order to draw logical conclusions, discuss the steps used to solve a mathematical problem, and justify and explain the solutions to problems using physical models.
Mathematical Connections	D	Students will develop the ability to make mathematical connections by solving problems where there is a need to view mathematics as an integrated whole. Students will do this in order to apply mathematical thinking and modeling to solve problems that arise in other disciplines and view mathematics as an integrated whole in order to identify mathematics used in everyday life.

## Grade Six Power Standards for Mathematics

Based on the Nevada State Standards, ITBS, and the Nevada Criterion Referenced Examination.  
For pacing of the CCSD Power Standards, please refer to the Guide for Benchmarks.

Strand	NV	CCSD Power Standards
Numbers, Number Sense, and Computation	1.6.1	Identify and use place value positions to thousandths. [1.2]
	1.6.2	Add and subtract fractions with unlike denominators. [3.1] Multiply and divide with fractions using models, drawings, and numbers. [3.1] Use models to translate among fractions, decimals, and percents. [3.3]
	1.6.3	Read, write, compare and order groups of fractions, groups of decimals, and groups of percents. [1.1]
	1.6.5	Identify equivalent expressions between and among fractions, decimals, and percents. [3.4]
	1.6.6	Estimate using fractions, decimals, and percents. [1.5] Use estimation strategies in mathematical and practical situations. [1.5]
	1.6.7	Calculate using fractions, decimals, and percents in mathematical and practical situations. [3.1] Use order of operations to evaluate expressions with integers. [1.3]
	1.6.8	Use the concepts of number theory, including prime and composite numbers, factors, multiples, and the rules of divisibility to solve problems. [2.6]
	Patterns, Functions, and Algebra	2.6.1
2.6.2		Evaluate formulas and algebraic expressions using whole number values. [1.3] Solve and graphically represent equations and simple inequalities in one variable. [2.2]
2.6.4		When given a rule relating two variables, create a table and represent the ordered pairs on a coordinate plane. [4.1,4.2]
Measurement	3.6.1	Estimate and compare corresponding units of measure for temperature, length, and weight/mass between customary and metric systems. [6.3, 6.4]
	3.6.2	Given two measurements of the same object, select the one that is more precise. [6.1] Explain how the size of the unit of measure used effects precision. [6.2]
	3.6.3	Select, model, and apply formulas to find the perimeter, circumference, and area of plane figures. [5.5, 5.6]
	3.6.4	Compare and use unit cost in practical situations. [5.2]
	3.6.5	Write and apply ratios in mathematical and practical problems involving measurement and monetary conversions. [5.1]
	3.6.6	Use equivalent periods of time to solve practical problems. [5.3]
Spatial Relationships, Geometry, and Logic	4.6.1	Measure angles using a protractor. [6.10] Identify, classify, compare, and draw regular and irregular quadrilaterals. [6.5, 6.6, 6.7, 6.8] Identify, draw, and use central angles to represent fractions of a circle. [6.11]
	4.6.2	Determine actual measurements represented on scale drawings [6.17] Convert actual measurements to scale. [6.18]
	4.6.3	Using a coordinate plane, identify and locate points. [6.20] Graph coordinates representing geometric shapes in all four quadrants on a coordinate plane. [4.2]
	4.6.6	Draw, identify, and find measures of complementary and supplementary angles using arithmetic and geometric methods. [6.12, 6.13]
	Data Analysis	5.6.1
5.6.2		Select and apply the measures of central tendency to describe data. [4.7]
5.6.3		Analyze the effect a change of graph type has on the interpretation of a set of data. [4.6] Interpret data and make predictions using circle graphs and scatterplots. [4.5, 4.9]
5.6.4		Find the number of outcomes for a specific event by constructing sample spaces and tree diagrams. [7.3]
5.6.5		Find experimental probability using concrete materials. [7.1] Represent the results of simple probability experiments as fractions, decimals, percents, and ratios to make predictions about future events. [7.2]
5.6.6		Analyze various representations of a set of data to draw conclusions and make predictions. [4.8] Describe the limitations of various graphical representations. [4.10]
Problem Solving	A	Students will develop their ability to solve problems by engaging in developmentally appropriate opportunities where there is a need to use various approaches to investigate and understand mathematical concepts.
Mathematical Communication	B	Students will develop their ability to communicate mathematically by solving problems where there is a need to obtain information from the real world through reading, listening, and observing.
Mathematical Reasoning	C	Students will develop their ability to reason mathematically by solving problems where there is a need to investigate mathematical ideas and construct their own learning in all content areas.
Mathematical Connections	D	Students will develop the ability to make mathematical connections by solving problems where there is a need to view mathematics as an integrated whole.

## Grade Seven Power Standards for Mathematics

Based on the Nevada State Standards, ITBS, and the Nevada Criterion Referenced Examination.  
For pacing of the CCSD Power Standards, please refer to the Guide for Benchmarks.

Strand	NV	CCSD Power Standards
Numbers, Number Sense, and Computation	1.7.2	Translate among fractions, decimals, and percents including fractional percents. [2.3]
	1.7.3	Compare and order a combination of rational numbers, including fractions, decimals, percents, and integers in mathematical and practical situations. [2.2]
	1.7.5	Identify absolute values of integers. [1.5]
	1.7.6	Generate a reasonable estimate for a computation using a variety of methods. [1.8] Select and round to the appropriate significant digit. [1.9]
	1.7.7	Calculate with integers and other rational numbers to solve mathematical and practical situations. [1.2] Use order of operations to evaluate expressions and solve one-step equations (containing rational numbers). [1.2, 1.3]
	1.7.8	Identify and apply the distributive, commutative, and associative properties of rational numbers to solve problems. [1.10, 1.11]
	Patterns, Functions, and Algebra	2.7.1
2.7.2		Evaluate formulas and algebraic expressions for given integer values. [1.4, 3.3]
2.7.4		Solve and graphically represent equations and inequalities in one variable with integer solutions. [3.5, 3.10]
2.7.5		Generate and graph a set of ordered pairs to represent a linear equation. [3.7]
		Identify linear equations and inequalities. [3.11] Model and solve equations using concrete and visual representations. [3.12, 3.13]
Measurement	3.7.1	Estimate and compare corresponding units of measure for area and volume/capacity between customary and metric systems. [6.1, 6.3]
	3.7.3	Select, model, and apply formulas to find the volume and surface area of solid figures [6.5, 6.6]
	3.7.4	Calculate simple interest in monetary problems. [4.4]
	3.7.5	Write and apply proportions to solve mathematical and practical problems involving measurement and monetary conversions. [4.2]
	3.7.6	Use elapsed time to solve practical problems. [4.5]
Spatial Relationships, Geometry, and Logic	4.7.1	Identify, classify, compare, and draw regular and irregular polygons. [6.7, 6.8, 6.10, 6.11] Find and verify the sum of the measure of interior angles of triangles and quadrilaterals. [6.21]
	4.7.3	Demonstrate translation, reflection, and rotation using coordinate geometry and models. [6.22]
	4.7.5	Describe the location of the original figure and its transformation on a coordinate plane. [6.18] Determine slope of a line, midpoint of a segment, and the horizontal and vertical distance between two points using coordinate geometry. [6.23]
	4.7.6	Describe the geometric relationships of parallel lines, perpendicular lines, triangles, quadrilaterals and bisectors. [6.12]
	4.7.7	Model the Pythagorean Theorem and solve for the hypotenuse. [6.24, 6.25]
Data Analysis	5.7.1	Formulate questions that guide the collection of data. [5.1] Organize, display, and read data using the appropriate graphical representations (with and without technology). [5.2]
	5.7.2	Interpret graphical representations of data to describe patterns, trends, and data distribution. [5.3]
	5.7.4	Find the number of permutations possible for an event in mathematical and practical situations. [7.1]
	5.7.5	Find the theoretical probability of an event using different counting methods including sample spaces and compare that probability with experimental results. [7.2, 7.4]
	5.7.6	Represent the probability of an event as a number between 0 and 1. [7.5] Interpolate and extrapolate from data to make predications for a given set of data. [5.4, 5.5]
Problem Solving	A	Students will develop their ability to solve problems by engaging in developmentally appropriate opportunities where there is a need to use various approaches to investigate and understand mathematical concepts.
Mathematical Communication	B	Students will develop their ability to communicate mathematically by solving problems where there is a need to obtain information from the real world through reading, listening, and observing.
Mathematical Reasoning	C	Students will develop their ability to reason mathematically by solving problems where there is a need to investigate mathematical ideas and construct their own learning in all content areas.
Mathematical Connections	D	Students will develop the ability to make mathematical connections by solving problems where there is a need to view mathematics as an integrated whole.

## Pre-Algebra 8 Power Standards for Mathematics

Based on the Nevada State Standards, ITBS, and the Nevada Criterion Referenced Examination  
For pacing of the CCSD Power Standards, please refer to the Guide for Benchmarks.

Strand	NV	CCSD Power Standards
<b>Numbers, Number Sense, and Computation</b>	1.8.1	Represent numbers using scientific notation in mathematical and practical situations. [2.2]
	1.8.2	Translate among fractions, decimals, and percents, including percents greater than 100 and percents less than 1. [2.3] Explain and use the relationship among equivalent representations of rational numbers in mathematical and practical situations. [2.24]
	1.8.3	Compare and order real numbers, including powers of whole numbers in mathematical and practical situations. [4.3]
	1.8.5	Identify perfect squares to 225 and their corresponding square roots. [4.1]
	1.8.6	Use estimation strategies to determine the reasonableness of an answer in mathematical and practical situations. [2.23]
	1.8.7	Calculate with real numbers to solve mathematical and practical situations. [1.5, 1.6] Use order of operations to solve equations in the real number system. [1.12]
	<b>Patterns, Functions, and Algebra</b>	2.8.1
2.8.2		Evaluate formulas and algebraic expressions using rational numbers (with and without technology). [1.1, 1.10] Solve and graphically represent equations and inequalities in one variable, including absolute value. [1.21]
2.8.3		Add and subtract binomials. [6.2, 6.3]
2.8.4		Identify, model, describe, and evaluate functions (with and without technology). [3.1, 3.2] Translate among verbal descriptions, graphic, tabular and algebraic representations of mathematical situations (with and without technology). [3.5]
2.8.5		Solve linear equations and represent the solution graphically. [1.17, 1.18] Solve inequalities and represent the solution on a number line. [1.20]
2.8.6		Describe how changes in the value of one variable affect the values of the remaining variables in a relation. [4.13]
<b>Measurement</b>		3.8.1
	3.8.2	Demonstrate an understanding of precision, error, and tolerance when using appropriate measurement tools. [4.15]
	3.8.3	Identify how changes in a dimension of a figure effect changes in its perimeter, area, and volume. [4.13]
	3.8.4	Calculate percents in monetary problems. [2.19, 2.20]
	3.8.5	Apply ratios and proportions to calculate rates and solve mathematical and practical problems using indirect measure. [2.10, 2.11, 2.19]
<b>Spatial Relationships, Geometry, and Logic</b>	4.8.1	Find and use the sum of the measures of interior angles of polygons. [4.5]
	4.8.2	Apply the properties of equality and proportionality to congruent or similar shapes. [2.12, 2.13]
	4.8.3	Demonstrate dilation using coordinate geometry and models. [7.6] Describe the relationship between the original figure and its transformation or dilation. [7.8]
	4.8.5	Calculate slope, midpoint, and distance using equations and formulas (with and without technology). [4.4] Determine the $x$ - and $y$ - intercepts of a line. [3.3, 3.4]
	4.8.6	Form generalizations and validate conclusions about geometric figures and their properties. [4.16]
	4.8.7	Verify and explain the Pythagorean Theorem using a variety of methods. [4.17] Determine the measure of the missing side of a right triangle. [4.2]
	<b>Data Analysis</b>	5.8.1
5.8.2		Select and apply appropriate measures of data distribution using interquartile range and central tendency. [5.10]
5.8.3		Evaluate statistical arguments that are based on data analysis for accuracy and validity. [5.11]
5.8.4		Find the number of combinations possible in mathematical and practical situations. [2.16] Distinguish between permutations and combinations. [5.5]
5.8.5		Differentiate between the probability of an event and the odds of an event. [2.25]
5.8.6		Formulate reasonable inferences and predictions through interpolation and extrapolation of data to solve practical problems. [5.4]
<b>Problem Solving</b>	A	Students will develop their ability to solve problems by engaging in developmentally appropriate opportunities where there is a need to use various approaches to investigate and understand mathematical concepts.
<b>Mathematical Communication</b>	B	Students will develop their ability to communicate mathematically by solving problems where there is a need to obtain information from the real world through reading, listening, and observing.
<b>Mathematical Reasoning</b>	C	Students will develop their ability to reason mathematically by solving problems where there is a need to investigate mathematical ideas and construct their own learning in all content areas.
<b>Mathematical Connections</b>	D	Students will develop the ability to make mathematical connections by solving problems where there is a need to view mathematics as an integrated whole.

# Algebra 1 Power Standards for Mathematics

Based on the Nevada State Standards, ITBS, and the Nevada Criterion Referenced Examination.  
For pacing of the CCSD Power Standards, please refer to the Guide for Benchmarks.

Strand	NV	CCSD Power Standards
Numbers, Number Sense, and Computation	1.8.1	Represent numbers using scientific notation in mathematical and practical situations.
	1.8.3	Compare and order real numbers, including powers of whole numbers in mathematical and practical situations.
	1.8.5	Identify perfect squares to 225 and their corresponding square roots.
	1.8.6	Use estimation strategies to determine the reasonableness of an answer in mathematical and practical situations.
	1.8.7	Calculate with real numbers to solve mathematical and practical situations. Use order of operations to solve equations in the real number system.
	1.12.6	Determine an approximate value of radical and exponential expressions using a variety of methods.
	1.12.7	Solve mathematical problems involving exponents and roots. Perform addition, subtraction, and scalar multiplication on matrices.
	1.12.8	Identify and apply real number properties to solve problems.
	Patterns, Functions, and Algebra	2.8.2
2.8.4		Identify, model, describe, and evaluate functions (with and without technology). Translate among verbal descriptions, graphic, tabular and algebraic representations of mathematical situations (with and without technology).
2.8.5		Solve linear equations and represent the solution graphically. Solve inequalities and represent the solution on a number line.
2.8.6		Describe how changes in the value of one variable affect the values of the remaining variables in a relation.
2.12.1		Use algebraic expressions to identify and describe the $n^{\text{th}}$ term of a sequence.
2.12.2		Isolate any variable in given equations, inequalities, proportions, and formulas to use in mathematical and practical situations.
2.12.3		Add, subtract, multiply, and factor 1 <sup>st</sup> and 2 <sup>nd</sup> degree polynomials connecting the arithmetic and algebraic processes. Simply algebraic expressions, including exponents and radicals.
2.12.4		Determine the domain and range of functions, including linear, quadratic, and absolute value, algebraically and graphically. Solve absolute value equations and inequalities both algebraically and graphically.
2.12.5		Solve systems of two linear equations algebraically and graphically and verify solutions (with and without technology).
2.12.6		Solve mathematical and practical problems involving linear and quadratic equations with a variety of methods, including discrete methods (with and without technology).
Measurement		3.8.5
	3.12.1	Estimate and convert between customary and metric systems.
	3.12.3	Select and use appropriate measurement tools, techniques, and formulas to solve problems in mathematical and practical situations.
	3.12.5	Determine the measure of unknown dimensions, angles, areas, and volumes using relationships and formulas to solve problems.
Spatial Relationships, Geometry, and Logic	4.8.5	Calculate slope, midpoint, and distance using equations and formulas (with and without technology). Determine the $x$ - and $y$ - intercepts of a line.
	4.8.6	Form generalizations and validate conclusions about geometric figures and their properties.
	4.12.5	Determine the slope of lines using coordinate geometry and algebraic techniques. Identify parallel, perpendicular, and intersecting lines by slope. Graph linear equations and find possible solutions to those equations using coordinate geometry. Find possible solution sets of systems of equations whose slopes indicate parallel, perpendicular, or intersecting lines.
	4.12.7	Apply the Pythagorean Theorem and its converse in mathematical and practical situations.
	4.12.9	Formulate, evaluate, and justify arguments using inductive and deductive reasoning in mathematical and practical situations.
Data Analysis	5.8.6 5.12.1	Formulate reasonable inferences and predictions through interpolation and extrapolation of data to solve practical problems. Organize data through the use of tables, graphs, and matrices (with and without technology).
Problem Solving	A	Students will develop their ability to solve problems by engaging in developmentally appropriate opportunities where there is a need to use various approaches to investigate and understand mathematical concepts.
Mathematical Communication	B	Students will develop their ability to communicate mathematically by solving problems where there is a need to obtain information from the real world through reading, listening, and observing.
Mathematical Reasoning	C	Students will develop their ability to reason mathematically by solving problems where there is a need to investigate mathematical ideas and construct their own learning in all content areas.
Mathematical Connections	D	Students will develop the ability to make mathematical connections by solving problems where there is a need to view mathematics as an integrated whole.

## Geometry Power Standards for Mathematics

Based on the Nevada State Standards, ITBS, and the Nevada Criterion Referenced Examination.  
For pacing of the CCSD Power Standards, please refer to the Guide for Benchmarks.

Strand	NV	CCSD Power Standards
Numbers, Number Sense, and Computation	1.8.3	Compare and order real numbers, including powers of whole numbers in mathematical and practical situations.
	1.8.5	Identify perfect squares to 225 and their corresponding square roots.
	1.8.6	Use estimation strategies to determine the reasonableness of an answer in mathematical and practical situations.
	1.8.7	Calculate with real numbers to solve mathematical and practical situations. Use order of operations to solve equations in the real number system.
	1.12.6	Determine an approximate value of radical and exponential expressions using a variety of methods.
	1.12.7	Solve mathematical problems involving exponents and roots. Perform addition, subtraction, and scalar multiplication on matrices.
	1.12.8	Identify and apply real number properties to solve problems.
Patterns, Functions, and Algebra	2.8.2	Evaluate formulas and algebraic expressions using rational numbers (with and without technology). Solve and graphically represent equations and inequalities in one variable, including absolute value.
	2.8.5	Solve linear equations and represent the solution graphically. Solve inequalities and represent the solution on a number line.
	2.12.2	Isolate any variable in given equations, inequalities, proportions, and formulas to use in mathematical and practical situations.
	2.12.3	Add, subtract, multiply, and factor 1 <sup>st</sup> and 2 <sup>nd</sup> degree polynomials connecting the arithmetic and algebraic processes. Simplify algebraic expressions, including exponents, and radicals.
	2.12.4	Determine the domain and range of functions, including linear, quadratic, and absolute value, algebraically and graphically. Solve absolute value equations and inequalities both algebraically and graphically.
	2.12.5	Solve systems of two linear equations algebraically and graphically and verify solutions (with and without technology).
Measurement	3.8.3	Identify how changes in a dimension of a figure effect changes in its perimeter, area and volume.
	3.12.2	Justify, communicate, and differentiate between precision, error, and tolerance in practical problems.
	3.12.3	Select and use appropriate measurement tools, techniques, and formulas to solve problems in mathematical and practical situations.
	3.12.4	Interpret and apply consumer data presented in charts, tables, and graphs to make informed financial decisions related to practical applications.
	3.12.5	Determine the measure of unknown dimensions, angles, areas, and volumes using relationships and formulas to solve problems.
Spatial Relationships, Geometry, and Logic	4.8.2	Apply the properties of equality and proportionality to congruent or similar shapes.
	4.8.3	Demonstrate dilation using coordinate geometry and models. Describe the relationship between the original figure and its transformation or dilation.
	4.8.5	Calculate slope, midpoint, and distance using equations and formulas (with and without technology). Determine the $x$ - and $y$ - intercepts of a line.
	4.8.6	Form generalizations and validate conclusions about geometric figures and their properties.
	4.12.1	Identify and use the parts of a circle to solve mathematical and practical problems. Identify and apply properties of interior and exterior angles of polygons to solve mathematical and practical problems.
	4.12.2	Apply properties of similarity through right triangle trigonometry to find missing angles and sides.
	4.12.5	Determine the slope of lines using coordinate geometry and algebraic techniques. Identify parallel, perpendicular, and intersecting lines by slope. Graph linear equations and find possible solutions to those equations using coordinate geometry. Find possible solution sets of systems of equations whose slopes indicate parallel, perpendicular, or intersecting lines.
	4.12.6	Solve problems using complementary and supplementary angles, congruent angles, vertical angles, angles formed when parallel lines are cut by a transversal and angles in polygons.
	4.12.7	Apply the Pythagorean Theorem and its converse in mathematical and practical situations.
	4.12.9	Formulate, evaluate, and justify arguments using inductive and deductive reasoning in mathematical and practical situations.
Data Analysis	5.12.1	Organize statistical data through the use of tables, graphs, and matrices (with and without technology).
Problem Solving	A	Students will develop their ability to solve problems by engaging in developmentally appropriate opportunities where there is a need to use various approaches to investigate and understand mathematical concepts.
Mathematical Communication	B	Students will develop their ability to communicate mathematically by solving problems where there is a need to obtain information from the real world through reading, listening, and observing.
Mathematical Reasoning	C	Students will develop their ability to reason mathematically by solving problems where there is a need to investigate mathematical ideas and construct their own learning in all content areas.
Mathematical Connections	D	Students will develop the ability to make mathematical connections by solving problems where there is a need to view mathematics as an integrated whole.

## Kindergarten Power Standards for Science

Power Standards are based on the Nevada State Standards and include skills required for ITBS “backward mapped” to Kindergarten.

Strand	NV	CCSD Power Standards
<b>Nature of Science</b> <i>Scientific Inquiry</i>  <i>Science, Technology, and Society</i>	N.2.A.1 N.2.A.2 N.2.A.3 N.2.B.1 N.2.B.2	Record observations using pictures, words, or numbers. [1.1] Use equipment safely to gather information (magnifying lens, funnel, eye dropper). [1.2] Observe patterns in nature (leaves, feather, night, day, weather conditions). [1.3] Recognize that science can answer questions for all kinds of people. [1.6] Work in a team and share information, observations, and ideas with others. [1.5]
<b>Physical Science</b> <i>Matter</i>  <i>Forces and Motion</i>  <i>Energy</i>	P.2.A.3 P.2.A.4	Describe materials and properties of objects (size, shape, color). [2.1] Compare objects made of different materials. [2.2]
<b>Earth &amp; Space Science</b> <i>Atmospheric Processes and the Water Cycle</i>  <i>Solar System and Universe</i>  <i>Earth's Composition and Structure</i>	E.2.A.1 E.2.A.3	State that the sun is a source of heat and light. [3.1] Observe, describe, and record seasonal changes. [3.2]
<b>Life Science</b> <i>Heredity</i>  <i>Structure of Life</i>  <i>Organisms and Their Environment</i>  <i>Diversity of Life</i>	L.2.A.1  L.2.B.1 L.2.D.1	Recognize that animals have offspring that are similar to their parents. [4.3] Explain that the five senses are used to investigate the natural world. [4.4] Sort animals by observable characteristics. [4.2]

## Grade Twelve Power Standards for Mathematics

Based on the Nevada State Standards, ITBS, and the Nevada Criterion Referenced Examination.  
For pacing of the CCSD Power Standards, please refer to the Guide for Benchmarks.

Strand	NV	CCSD Power Standards
Numbers, Number Sense, and Computation	1.8.1	Represent numbers using scientific notation in mathematical and practical situations.
	1.8.2	Translate among fractions, decimals, and percents, including percents greater than 100 and percents less than 1. Explain and use the relationship among equivalent representations of rational numbers in mathematical and practical situations.
	1.8.3	Compare and order real numbers, including powers of whole numbers in mathematical and practical situations.
	1.8.5	Identify perfect squares to 225 and their corresponding square roots.
	1.12.6	Determine an approximate value of radical and exponential expressions using a variety of methods.
	1.12.7	Solve mathematical problems involving exponents and roots. Perform addition, subtraction, and scalar multiplication on matrices.
	1.12.8	Identify and apply real number properties to solve problems.
	Patterns, Functions, and Algebra	2.8.2
2.12.1		Use algebraic expressions to identify and describe the $n^{\text{th}}$ term of a sequence.
2.12.2		Isolate any variable in given equations, inequalities, proportions, and formulas to use in mathematical and practical situations.
2.12.3		Add, subtract, multiply, and factor 1 <sup>st</sup> and 2 <sup>nd</sup> degree polynomials connecting the arithmetic and algebraic processes. Simplify algebraic expressions, including exponents and radicals.
2.12.4		Determine the domain and range of functions, including linear, quadratic, and absolute value, algebraically and graphically. Solve absolute value equations and inequalities both algebraically and graphically.
2.12.5		Solve systems of two linear equations algebraically and graphically and verify solutions (with and without technology).
2.12.6		Solve mathematical and practical problems involving linear and quadratic equations with a variety of methods, including discrete methods (with and without technology).
Measurement	3.12.1	Estimate and convert units of measure for mass and capacity within the same measurement system (customary and metric).
	3.12.2	Justify, communicate, and differentiate between precision, error, and tolerance in practical problems.
	3.12.3	Select and use appropriate measurement tools, techniques, and formulas to solve problems in mathematical and practical situations.
	3.12.4	Interpret and apply consumer data presented in charts, tables, and graphs to make informed financial decisions related to practical applications.
	3.12.5	Determine the measure of unknown dimensions, angles, areas, and volumes using relationships and formulas to solve problems
Spatial Relationships, Geometry, and Logic	4.8.3	Demonstrate dilation using coordinate geometry and models. Describe the relationship between the original figure and its transformation or dilation.
	4.12.1	Identify and use the parts of a circle to solve mathematical and practical problems. Identify and apply properties of interior and exterior angles of polygons to solve mathematical and practical problems.
	4.12.2	Apply properties of similarity through right triangle trigonometry to find missing angles and sides.
	4.12.5	Determine the slope of lines using coordinate geometry and algebraic techniques. Identify parallel, perpendicular, and intersecting lines by slope. Graph linear equations and find possible solutions to those equations using coordinate geometry. Find possible solution sets of systems of equations whose slopes indicate parallel, perpendicular, or intersecting lines.
	4.12.6	Solve problems using complementary and supplementary angles, congruent angles, vertical angles, angles formed when parallel lines are cut by a transversal and angles in polygons.
	4.12.7	Apply the Pythagorean Theorem and its converse in mathematical and practical situations.
	4.12.9	Formulate, evaluate, and justify arguments using inductive and deductive reasoning in mathematical and practical situations.
	Data Analysis	5.8.6
5.12.1		Organize statistical data through the use of tables, graphs, and matrices (with and without technology).
5.12.2		Select and apply appropriate statistical measures in mathematical and practical situations.
5.12.3		Distinguish between a sample and a census. Identify sources of bias and their effect on data representations and statistical conclusions. Use the shape of a normal distribution to compare and analyze data from a sample.
5.12.4		Apply permutations and combinations to mathematical and practical situations, including the Fundamental Counting Principle.
5.12.5		Determine the probability of an event with and without replacement using sample spaces. Design, conduct, analyze, and effectively communicate the results of multi-stage probability experiments.
Problem Solving	A	Students will develop their ability to solve problems by engaging in developmentally appropriate opportunities where there is a need to use various approaches to investigate and understand mathematical concepts.
Mathematical Communication	B	Students will develop their ability to communicate mathematically by solving problems where there is a need to obtain information from the real world through reading, listening, and observing.
Mathematical Reasoning	C	Students will develop their ability to reason mathematically by solving problems where there is a need to investigate mathematical ideas and construct their own learning in all content areas.
Mathematical Connections	D	Students will develop the ability to make mathematical connections by solving problems where there is a need to view mathematics as an integrated whole.

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**POWER STANDARDS**  
**SCIENCE**  
**K-12**

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## Grade One Power Standards for Science

Power Standards are based on the Nevada State Standards and include skills required for ITBS "backward mapped" to Kindergarten.

Strand	NV	CCSD Power Standards
<b>Nature of Science</b> <i>Scientific Inquiry</i>  <i>Science, Technology, and Society</i>	N.2.A.1 N.2.A.2 N.2.A.3 N.2.B.1 N.2.B.2	Record observations and explanations using pictures, words, and numbers. [1.1] Use equipment safely to gather information (magnifying lens, funnel, eye dropper). [1.2] Make predictions based on observed patterns (night, day, seasons, growth). [1.3] Recognize that science can answer questions for all kinds of people. [1.6] Ask questions based on observations and interactions with others. [1.4]
<b>Physical Science</b> <i>Matter</i>  <i>Forces and Motion</i>  <i>Energy</i>	P.2.B.1 P.2.B.2  P.2.B.3 P.2.B.4	Describe how to make objects move, stop, change direction and balance. [2.2] Describe how things move in many different ways (straight lines, rolling, revolving, zigzag, vibration, circular) and at different speeds. [2.1, 2.2, 2.3] Explain that magnets can be used to make some objects move without being touched. [2.4] Recognize that things fall to the ground unless something holds them up. [2.5]
<b>Earth and Space Science</b> <i>Atmospheric Processes and the Water Cycle</i>  <i>Solar System and Universe</i>  <i>Earth's Composition and Structure</i>	E.2.C.1 E.2.C.2 E.2.C.3	Explain that the earth is composed of different kinds of materials (rocks, soils, water, air). [3.1] Describe the size, shape, texture, color and patterns of rocks. [3.2] Describe the properties of soils (color, texture, composition). [3.3]
<b>Life Science</b> <i>Heredity</i>  <i>Structure of Life</i>  <i>Organisms and Their Environment</i>  <i>Diversity of Life</i>	L.2.A.1 L.2.A.2 L.2.C.3 L.2.D.1	Explain that plants have seeds that produce the same kind of plant. [4.1] Describe how plants grow and change through their life cycles. [4.4] Explain that plants grow in different place and need certain resources to survive. [4.6] Sort plants by observable characteristics. [4.3]

## Grade Two Power Standards for Science

Power Standards are based on the Nevada State Standards and include skills required for ITBS “backward mapped” to Kindergarten.

Strand	NV	CCSD Power Standards
<b>Nature of Science</b> <i>Scientific Inquiry</i>  <i>Science, Technology, and Society</i>	N.2.A.1 N.2.A.2 N.2.A.3 N.2.B.1 N.2.B.2	Record observations using pictures, words, numbers, and charts. [1.1] Use equipment safely to gather information (pan balance, thermometer, funnel, ruler). [1.3] Make and justify predictions based on observations. [1.4] Explain that many kinds of people do science. [1.8] Ask questions, cooperate, and contribute ideas within a group. [1.5, 1.6]
<b>Physical Science</b> <i>Matter</i>  <i>Forces and Motion</i>  <i>Energy</i>	P.2.A.1 P.2.A.2  P.2.A.3 P.2.C.1 P.2.C.2	Describe solids and liquids based on similarities and differences. [2.1, 2.2] Explain that properties of materials can be changed by heating, freezing, mixing, cutting, and bending. [2.3, 2.5] Categorize materials by observable properties (color, size, shape, and weight). [2.1, 2.2, 2.4] Explain that sound is produced by vibrating objects. [2.7] Describe objects as hot or cold relative to another object. [2.6]
<b>Earth and Space Science</b> <i>Atmospheric Processes and the Water Cycle</i>  <i>Solar System and Universe</i>  <i>Earth's Composition and Structure</i>	E.2.A.1 E.2.A.2  E.2.A.3 E.2.A.4  E.2.B.1  E.2.B.2 E.2.B.3 E.2.B.4	Describe how the sun warms the land, air, and water [3.1] Explain that water on Earth can be a liquid (rain) or a solid (snow and ice) and can go back and forth from one form to another. [3.2] Describe weather changes from day to day and seasonally. [3.3] Describe day to day and seasonal weather changes using measurable quantities (temperature, rainfall, wind speed and direction) [3.3] Recognize that the sun and moon display patterns in how they look, where they are located, and how they move. [3.4] Explain that the Sun rises every day, and the Moon can rise during the day and/or night. [3.4] Explain that the Sun and Moon appear to move across the sky. [3.4] Explain that the Moon appears to change shape over the course of a month. [3.4]
<b>Life Science</b> <i>Heredity</i>  <i>Structure of Life</i>  <i>Organisms and Their Environment</i>  <i>Diversity of Life</i>	L.2.A.1  L.2.A.2 L.2.C.1 L.2.C.2 L.2.C.3 L.2.D.1 L.2.D.2	Explain that animals have offspring that are the same kind of animal, and that differences exist among individuals of the same kinds of animals. [4.2] Describe how animals grow and change through their life cycles. [4.3] Explain that animals use plants and other animals for food. [4.5] Explain that habitats include food, water, shelter, and space. [4.6] Explain that many different kinds of living things exist on Earth. [4.1] Sort animals by observable characteristics and/or behaviors. [4.8] Explain that particular features of plants and animals help them live in different kinds of habitats. [4.7]

## Grade Three Power Standards for Science

Power Standards are based on the Nevada State Standards, ITBS, and the Nevada Criterion Referenced Examination.

Strand	NV	CCSD Power Standards
<b>Nature of Science</b> <i>Scientific Inquiry</i>  <i>Science, Technology, and Society</i>	N.5.A.1  N.5.A.3 N.5.A.4  N.5.A.5  N.5.A.7 N.5.B.3	Explain that scientific progress is made by conducting careful investigations, recording data, and communicating the results in an accurate method. [1.4, 1.5, 1.6] Draw conclusions from scientific evidence (observations and measurements). [1.5] Make predictions from graphic representations of data (labeled illustrations, graphs, and charts). [1.5, 1.6] Use equipment safely to gather information (tri-lens magnifier, stethoscope, metric measurement tools). [1.4] Organize items and look for observable patterns. [1.7] Describe the benefits of working with a team and sharing findings. [1.7]
<b>Physical Science</b> <i>Matter</i>  <i>Forces and Motion</i>  <i>Energy</i>	P.5.A.3  P.5.C.2	Describe objects in terms of their observable properties (mass, color, temperature, texture). [2.3] Explain that vibrations produce sound waves. [2.1]
<b>Earth and Space Science</b> <i>Atmospheric Processes and the Water Cycle</i>  <i>Solar System and Universe</i>  <i>Earth's Composition and Structure</i>	E.5.C.4 E.5.C.5	Explain that rocks are composed of different combinations of minerals. [3.1, 3.2] Explain that soil has biological and mineral components and varies from place to place. [3.3]
<b>Life Science</b> <i>Heredity</i>  <i>Structure of Life</i>  <i>Organisms and Their Environment</i>  <i>Diversity of Life</i>	L.5.A.3  L.5.B.1  L.5.B.2 L.5.C.2  L.5.C.3  L.5.C.5  L.5.D.1	Explain that offspring resemble their parents and each other, and also exhibit differences in characteristics. [4.1] Describe the structures that enable plants and animals to grow and survive. [4.4, 4.7] Compare and contrast the life cycles of various living things. [4.2] Identify examples of organisms that interact with each other and with the non-living parts of their ecosystem. [4.2, 4.4, 4.5] Identify changes to an environment that can be beneficial or harmful to plants and animals. [4.6] Describe plant and animal adaptations that allow them to survive in specific ecosystems. [4.7] Classify plants and animals according to their observable characteristics. [4.7]

## Grade Four Power Standards for Science

Power Standards are based on the Nevada State Standards, ITBS, and the Nevada Criterion Referenced Examination.

Strand	NV	CCSD Power Standards
<b>Nature of Science</b> <i>Scientific Inquiry</i>  <i>Science, Technology, and Society</i>	N.5.A.1	Explain how science notebook entries can be used to develop, communicate, and justify explanations and predictions. [1.1, 1.2, 1.3]
	N.5.A.3	Draw conclusions from scientific evidence (investigations and data). [1.2, 1.3]
	N.5.A.4	Make predictions from labeled illustrations and graphic representations of data (charts, bar graphs, frequency tables). [1.3]
	N.5.A.5	Use equipment and materials safely in investigations (magnet, thermometer, hand lens). [1.5]
	N.5.A.5	Describe how to plan and conduct a simple investigation. [1.4]
	N.5.A.6	Compare a model with what it represents (solar system, electrical circuit, human body models). [1.6]
	N.5.A.7	Use observable patterns to organize information. [1.7]
	N.5.B.1	Explain that many people have contributed to scientific knowledge and invention. [1.8]
	N.5.B.2	Describe the advantages and disadvantages of using technology (electricity, microscope, telescope). [1.9]
	N.5.B.3	Explain the benefits of conducting an investigation with a partner or small group. [1.4, 1.10]
<b>Physical Science</b> <i>Matter</i>  <i>Forces and Motion</i>  <i>Energy</i>	P.5.A.2	Explain that water can be a liquid, a gas, or a solid and can go back and forth from one form to another. [3.4]
	P.5.A.3	Classify materials by their observable physical and chemical properties (magnetism and conductivity). [2.2, 2.5, 3.1]
	P.5.B.3	Describe the way magnets attract and repel each other and certain kinds of other materials. [2.1]
	P.5.B.4	Explain that electrically charged particles can attract or repel other electrically-charged material. [2.2]
	P.5.C.1	Describe light in terms of simple properties (color, brightness, reflection). [2.3]
	P.5.C.3	Explain that light is usually associated with heat, and that heat is often a by product of energy conversion. [2.4]
	P.5.C.4	Explain that heat can move from one object to another by conduction, and some materials conduct heat better than others. [2.5]
	P.5.C.5	Explain the organization of simple electric circuits. [2.6]
<b>Earth and Space Science</b> <i>Atmospheric Processes and the Water Cycle</i>  <i>Solar System and Universe</i>  <i>Earth's Composition and Structure</i>	E.5.A.2	Describe the water cycle, including the role of the sun. [3.2]
	E.5.B.1	State that the stars in the sky are not scattered evenly, and they are not all the same brightness or color. [3.8]
	E.5.B.2	Explain that the solar system includes the Sun, planets, and moons. [3.7, 3.9, 3.10] State that the components of our Solar System (planets, moons, sun), as well as the constellations, appear to move through the sky. [3.9]
	E.5.B.4	Explain that the observable objects in the sky appear to move in cyclical patterns. [3.9]
<b>Life Science</b> <i>Heredity</i>  <i>Structure of Life</i>  <i>Organisms and Their Environment</i>  <i>Diversity of Life</i>	L.5.A.1	Describe inherited behaviors in animals. [4.1]
	L.5.A.4	Describe variations among individuals within the human population. [4.2]
	L.5.A.5	Describe learned behaviors in animals. [4.1]

## Grade Five Power Standards for Science

Power Standards are based on the Nevada State Standards, ITBS, and the Nevada Criterion Referenced Examination.

Strand	NV	CCSD Power Standards
<b>Nature of Science</b> <i>Scientific Inquiry</i>  <i>Science, Technology, and Society</i>	N.5.A.1	Use evidence from descriptions, models, explanations and predictions to determine if an investigation is a fair test. [1.1, 1.2, 1.3]
	N.5.A.2	Compare results of student investigations with what scientists already know about the world. [1.2, 1.3]
	N.5.A.3	Draw conclusions from scientific evidence (investigation data and text sources). [1.2, 1.3]
	N.5.A.4	Make predictions from tables, charts, and graphs of data (line plots, stem and leaf plots, scatterplots, histograms). [1.5]
	N.5.A.5	Describe how to conduct a safe investigation based on self-generated questions. [1.2, 1.6]
	N.5.A.6	Use models as tools to explain how something works or is constructed (stream table, terrarium, map, globe). [1.7]
	N.5.A.7	Use observable patterns to organize information and to make predictions. [1.8]
	N.5.B.1	Describe the contributions to scientific knowledge and discovery made by diverse peoples. [1.9]
<b>Physical Science</b> <i>Matter</i>  <i>Forces and Motion</i>  <i>Energy</i>	P.5.A.1	Describe how energy can be used to bring about changes in matter. [2.1]
	P.5.A.3	Classify materials by their observable physical and chemical properties (density and solubility). [2.2]
	P.5.A.4	Explain that by combining two or more materials, the properties of the resulting material can be different from the original materials. [2.3]
	P.5.A.5	Explain that the mass of a material remains constant whether it is together, in parts, or in a different state. [2.4]
	P.5.A.6	Explain that material may be composed of parts that are too small to be seen without magnification. [2.5]
	P.5.B.1	Describe how unbalanced forces (push or pull) cause objects to change their motion (speed, direction, or both). [2.6]
	P.5.B.2	Describe how the strength of a force and the mass of an object influence the amount of change in an object's motion. [2.7]
	P.5.B.5	Explain that the Earth's gravity pulls any object toward it without touching it. [2.8]
<b>Earth and Space Science</b> <i>Atmospheric Processes and the Water Cycle</i>  <i>Solar System and Universe</i>  <i>Earth's Composition and Structure</i>	E.5.A.1	Explain that the Sun is the main source of energy used on the Earth. [3.1]
	E.5.A.4	Describe various meteorological phenomena (flooding, snowstorms, thunderstorms, and drought). [3.3]
	E.5.A.5	Describe air as a substance that surrounds us, takes up space, and moves as wind. [3.4]
	E.5.C.1	Describe how fossils are evidence of past life. [3.5]
	E.5.C.2	Explain that water, wind, and ice constantly change the Earth's land surface through erosion and deposition. [3.6, 3.7, 3.8]
	E.5.C.3	Identify which landforms result from slow processes (erosion and deposition) and from fast processes (volcanoes, earthquakes, landslides, flood, and human activity). [3.6, 3.7, 3.8, 3.9]
<b>Life Science</b> <i>Heredity</i>  <i>Structure of Life</i>  <i>Organisms and Their Environment</i>  <i>Diversity of Life</i>	L.5.A.2	State that reproduction is essential for the continuation of every species. [4.2]
	L.5.C.1	Explain the organization of simple food webs. [4.4, 4.5]
	L.5.C.2	Explain that organisms interact with each other and with the non-living parts of their ecosystem. [4.6]
	L.5.C.3	Describe how some environmental conditions are more favorable than others to living Things [3.9, 4.7, 4.10]
	L.5.C.4	Explain that all organisms, including humans, can cause changes in their environments. [3.9, 4.8]
	L.5.C.5	Describe plant and animal adaptations that allow them to survive in specific ecosystems. [4.9, 4.10]
	L.5.D.5	Recognize that fossils are evidence of past life. [3.5]
	L.5.D.5	Explain how differences among individuals within a species give them advantages and/or disadvantages in surviving and reproducing. [4.11]

## Grade Six Power Standards for Science

Power Standards are based on the Nevada State Standards, CCSD syllabi, ITBS, and the Nevada Criterion Referenced Examination. For pacing of the CCSD Power Standards, please refer to the appropriate CCSD Science Syllabus.

Strand	NV	CCSD Power Standards
<b>Inquiry</b>	N.8.A.1 N.8.A.2 N.8.A.3 N.8.A.4 N.8.A.5  N.8.A.6 N.8.A.7	Identify and critically evaluate information in data, tables, and graphs. Critically evaluate information to distinguish between fact and opinion. Recognize that different explanations can be given for the same evidence. Design and conduct a controlled experiment. Use appropriate technology and laboratory procedures safely for observing, measuring, recording, and analyzing data. Explain that scientific inquiry includes evaluating results of scientific investigations, experiments, observations, theoretical and mathematical models, and explanations proposed by other scientists. Use multiple methods for organizing items and information.
<b>Science, Technology, and Society</b>	N.8.B.1  N.8.B.2	Describe consequences of technologies that can cause resource depletion and environmental degradation, but technology can also increase resource availability, mitigate environmental degradation, and make new resources economical. Explain that scientific knowledge is revised through a process of incorporating new evidence gained through on-going investigation and collaborative discussion.
<b>Heredity</b>	L.8.A.1  L.8.A.2 L.8.A.3 L.8.A.4	Explain that heredity is the passage of genetic instructions from one generation to the next generation. Recognize that changes in genes of eggs and sperm can cause changes in inherited characteristics. Describe how organisms can be bred for specific characteristics. List some characteristics of an organism that are the result of a combination of interaction with the environment and genetic information.
<b>Structures of Life</b>	L.8.B.1 L.8.B.2  L.8.B.3  L.8.B.4  L.8.B.5	Explain that all organisms are composed of cells, which are the fundamental units of life. Explain that cells grow, divide, and take in nutrients which they use to provide energy for cell functions. Recognize that some organisms are made of just one cell and that multicellular organisms can consist of thousands to millions of cells working together. Describe how cells combine to form tissues that combine to form organs and organ systems that are specialized to perform life functions. Explain that disease can result from defects in body systems or from damage caused by infection.
<b>Environment</b>	L.8.C.1 L.8.C.2 L.8.C.3 L.8.C.4	Represent how matter and energy are transferred through food webs in an ecosystem. Characterize organisms in any ecosystem by their functions. Evaluate how changes in environments can be beneficial or harmful. List inter-related factors that affect the number and type of organisms an ecosystem can support.
<b>Diversity of Life</b>	L.8.D.1 L.8.D.3	Identify and classify species based upon their characteristics. Recognize that an organism's behavior is based on both experience and on the species' evolutionary history.
<b>Solar System &amp; Universe</b>	E.8.B.4	Describe Earth as part of a solar system located within the Milky Way Galaxy.

## Grade Seven Power Standards for Science

Power Standards are based on the Nevada State Standards, CCSD syllabi, ITBS, and the Nevada Criterion Referenced Examination. For pacing of the CCSD Power Standards, please refer to the appropriate CCSD Science Syllabus.

Strand	NV	CCSD Power Standards
<b>Inquiry</b>	N.8.A.1 N.8.A.2 N.8.A.3 N.8.A.4 N.8.A.5 N.8.A.6 N.8.A.7	Identify and critically evaluate information in data, tables, and graphs. Critically evaluate information to distinguish between fact and opinion. Recognize that different explanations can be given for the same evidence. Design and conduct a controlled experiment. Use appropriate technology and laboratory procedures safely for observing, measuring, recording, and analyzing data. Explain that scientific inquiry includes evaluating results of scientific investigations, experiments, observations, theoretical and mathematical models, and explanations proposed by other scientists. Use multiple methods for organizing items and information.
<b>Science, Technology, and Society</b>	N.8.B.1 N.8.B.2	Describe consequences of technologies that can cause resource depletion and environmental degradation, but technology can also increase resource availability, mitigate environmental degradation, and make new resources economical. Explain that scientific knowledge is revised through a process of incorporating new evidence gained through on-going investigation and collaborative discussion.
<b>Atmospheric Processes</b>	E.8.A.1 E.8.A.2 E.8.A.3 E.8.A.5 E.8.A.6	Explain that seasons are caused by variations in the amounts of the Sun's energy reaching Earth's surface due to the planet's axial tilt. Describe how the processes involved in the water cycle affect climatic patterns. Describe the properties that make water an essential component of the Earth system. Explain the difference between local weather and regional climate. Relate topography and patterns of global and local atmospheric movement and how they influence local weather which occurs primarily in the lower atmosphere.
<b>Solar System &amp; Universe</b>	E.8.B.1 E.8.B.2 E.8.B.3 E.8.B.5 E.8.B.6 E.8.B.7	Explain that the universe contains many billions of galaxies, and each galaxy contains many billions of stars. Recognize that the solar system includes a great variety of planetary moons, asteroids, and comets. Describe characteristics of the planets in our solar system. Explain that the Sun is many thousands of times closer to Earth than any other star, and billions of times closer than the far end of the Milky Way Galaxy. Explain that the Sun is a medium-sized star located in the Milky Way Galaxy, part of which can be seen as a glowing band of light spanning the clear night sky. Use regular and predictable motions of Earth around the Sun and the Moon around the Earth to explain such phenomena as the day, the year, phases of the Moon, and eclipses.
<b>Earth's Composition &amp; Structure</b>	E.8.C.1 E.8.C.2 E.8.C.3 E.8.C.4 E.8.C.5 E.8.C.6 E.8.C.7 E.8.C.8	Recognize that sedimentary rocks and fossils provide evidence for changing environments and the constancy of geologic processes. Explain that rocks at Earth's surface weather, forming sediments that are buried, then compacted, heated and often recrystallized into new rock. Explain that Earth is composed of a crust (both continental and oceanic); hot convecting mantle; and a dense, metallic core. Relate the very slow movement of large crustal plates to geological events. Relate geologic processes to state and regional topography. Relate the properties and distributions of minerals to how they form. Describe the characteristics, abundances, and location of renewable and nonrenewable resources found in Nevada. Relate the properties of soils (color, texture, and water retention, and nutrients for living things) to how they form.
<b>Diversity of Life</b>	L.8.D.2	Recognize that fossils provide evidence of how life and environmental conditions have changed throughout geologic time.
<b>Forces &amp; Motion</b>	P.8.B.3	Explain that every object exerts gravitational force on every other object, and the magnitude of this force depends on the mass of the objects and their distance from one another.
<b>Energy</b>	P.8.C.2	Demonstrate how vibrations (e.g., sounds, earthquakes) move at different speeds in different materials, have different wave lengths, and set up wave-like disturbances that spread away from the source uniformly.

## Grade Eight Power Standards for Science

Power Standards are based on the Nevada State Standards, CCSD syllabi, ITBS, and the Nevada Criterion Referenced Examination. For pacing of the CCSD Power Standards, please refer to the appropriate CCSD Science Syllabus.

Strand	NV	CCSD Power Standards
<b>Inquiry</b>	N.8.A.1 N.8.A.2 N.8.A.3 N.8.A.4 N.8.A.5  N.8.A.6 N.8.A.7	Identify and critically evaluate information in data, tables, and graphs. Critically evaluate information to distinguish between fact and opinion. Recognize that different explanations can be given for the same evidence. Design and conduct a controlled experiment. Use appropriate technology and laboratory procedures safely for observing, measuring, recording, and analyzing data. Explain that scientific inquiry includes evaluating results of scientific investigations, experiments, observations, theoretical and mathematical models, and explanations proposed by other scientists. Use multiple methods for organizing items and information.
<b>Science, Technology, and Society</b>	N.8.B.1  N.8.B.2	Describe consequences of technologies that can cause resource depletion and environmental degradation, but technology can also increase resource availability, mitigate environmental degradation, and make new resources economical. Explain that scientific knowledge is revised through a process of incorporating new evidence gained through on-going investigation and collaborative discussion.
<b>Matter</b>	P. 8.A.3 P. 8.A.4  P.8.A.5 P.8.A.6 P.8.A.7 P.8.A.8	Use various methods for separating mixtures based on the properties of the components. Describe how atoms often combine to form molecules, and that compounds form when two or more different kinds of atoms chemically bond. Explain that mass is conserved in physical and chemical changes. Recognize that matter is made up of tiny particles called atoms. Describe the characteristics of electrons, protons, and neutrons. Explain that substances containing only one kind of atom are elements which cannot be broken into smaller pieces by normal laboratory processes.
<b>Forces &amp; Motion</b>	P.8.B.1 P.8.B.2 P.8.B.3	Describe the effects of balanced and unbalanced forces on an object's motion. Use electric currents to produce magnetic forces and use magnets to cause electric currents. Explain that every object exerts gravitational force on every other object, and the magnitude of this force depends on the mass of the objects and their distance from one another.
<b>Energy</b>	P.8.C.1 P. 8.C.2  P.8.C.3 P.8.C.4  P.8.C.5  P.8.C.6	Explain that visible light is a narrow band within the electromagnetic spectrum. Describe how vibrations (e.g., sounds, earthquakes) move at different speeds in different materials, have different wave lengths, and set up wave-like disturbances that spread away from the source uniformly. Explain that physical, chemical, and nuclear changes involve a transfer of energy. Recognize that energy cannot be created or destroyed, in a chemical or physical reaction, but only changed from one form to another. Describe how heat energy flows from warmer materials or regions to cooler ones through conduction, convection, and radiation. Explain that electrical circuits provide a means of transferring electrical energy to produce heat, light, sound, and chemical changes.
<b>Atmospheric Processes</b>	E.8.A.3	Describe the properties that make water an essential component of the earth system.

## Grade Twelve Power Standards for Science

Power Standards are based on the Nevada Standards, CCSD syllabi, ITBS, and the Nevada Criterion Referenced Examination. For pacing of the CCSD Power Standards, please refer to the appropriate CCSD Science Syllabus.

Strand	NV	CCSD Power Standards
<b>Nature of Science</b>	N.12.A.1	Students know that tables, charts, illustrations and graphs can be used in making arguments and claims in oral and written presentations.
	N.12.A.3	Students know repeated experimentation allows for statistical analysis and unbiased conclusions.
	N.12.B.1	Students know science, technology, and society influence one another in both positive and negative ways.
	N.12.B.2	Students know consumption patterns, conservation efforts, and cultural or social practices in countries have varying environmental impacts.
	N.12.B3	Students know the influence of ethics on scientific enterprise.
	N.12.B4	Students know scientific knowledge builds on previous information.
<b>Earth and Space Science</b>	E.12.A.1	Students know the Sun is the major source of Earth's energy, and provides the energy driving Earth's weather and climate.
	E.12.A.3	Students understand the role of the atmosphere in Earth's greenhouse effect.
	E.12.A.4	Students know convection and radiation play important roles in moving heat energy in the Earth system.
	E.8.B.7	Students know how regular and predictable motions of the Earth around the Sun and the Moon around the Earth explain such phenomena as the day, the year, phases of the Moon, and eclipses.
	E.12.C.1	Students know how successive rock strata and fossils can be used to confirm the age, history, and changing life forms of the Earth, including how this evidence is affected by the folding, breaking, and uplifting of layers.
	E.12.C.2	Students understand the concept of plate tectonics including the evidence that supports it (structural, geophysical and paleontological evidence).
	E.12.C.3	Students know elements exist in fixed amounts and move through solid earth, oceans, atmosphere, and living things as part of biogeochemical cycles.
	E.12.C.4	Students know processes of obtaining, using, and recycling renewable and non-renewable resources.
	E.12.C.5	Students know soil, derived from weathered rocks and decomposed organic material, is found in layers.
<b>Physical Science</b>	P.12.A.1	Students know how different molecular arrangements and motions account for the different physical properties of solids, liquids and gases.
	P.12.A.2	Students know elements in the periodic table are arranged into groups and periods by repeating patterns and relationships.
	P.12.A.3	Students know identifiable properties can be used to separate mixtures.
	P.12.A.4	Students know atoms bond with one another by transferring or sharing electrons.
	P.12.A.5	Students know chemical reactions can take place at different rates, depending on a variety of factors (e.g., temperature, concentration, surface area, and agitation).
	P.12.A.6	Students know chemical reactions either release or absorb energy.
	P.12.B.1	Students know that laws of motion can be used to determine the effects of forces on the motion of objects.
	P.12.C.1	Students know waves (e.g., sound, seismic, electromagnetic) have energy that can be transferred when the waves interact with matter.
	P.12.C.2	Students know energy forms can be converted.
	P.12.C.4	Students know characteristics, applications and impacts of radioactivity.
<b>Life Science</b>	L.12.A.1	Students know genetic information passed from parents to offspring is coded in the DNA molecule.
	L.12.A.2	Students know DNA molecules provide instructions for assembling protein molecules.
	L.12.A.3	Students know all body cells in an organism develop from a single cell and contain essentially identical genetic instructions.
	L.12.A.4	Students know several causes and effects of somatic versus sex cell mutations.
	L.12.A.5	Students know how to predict patterns of inheritance.
	L.12.B.1	Students know cell structures and their functions.
	L.12.B.2	Students know the human body has a specialized anatomy and physiology composed of a hierarchical arrangement of differentiated cells.
	L.12.B.3	Students know disease disrupts the equilibrium that exists in a healthy organism.
	L.12.C.1	Students know relationships of organisms and their physical environment.
	L.12.C.2	Students know how changes in an ecosystem can affect biodiversity and biodiversity's contribution to an ecosystem's stability.
	L.12.C.3	Students know the amount of living matter an environment can support is limited by the availability of matter, energy, and the ability of the ecosystem to recycle materials.
	L.12.C.4	Students know the unique geologic, hydrologic, climatic, and biological characteristics of Nevada's bioregions.
	L.12.D.1	Students know organisms can be classified based on evolutionary relationships.
	L.12.D.2	Students know the similarity of DNA sequences gives evidence of relationships between organisms.
	L.12.D.3	Students know the fossil record gives evidence for natural selection and its evolutionary consequences.
	L.12.D.4	Students know the extinction of species can be a natural process.
L.12.D.5	Students know biological evolution explains diversity of life.	
L.12.D.6	Students know the concepts of natural and artificial selection.	



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## CURRICULUM AND PROFESSIONAL DEVELOPMENT DIVISION