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Description of the Adaptations to the New Standards® Performance Standards and New Standards® Primary Literary Standards by DoDEA

NCEE and the University of Pittsburgh collaborated in developing the New Standards® Performance Standards, which are curriculum standards for English and Language Arts (ELA), mathematics, science, and applied learning for grades 4, 8 and 10, and the New Standards® Primary Literary Standards, which are standards for reading and writing for grades K through 3. DoDEA has developed content standards for grades Pre-K, 5, 6, 7, 9, 11 and 12 based on New Standards® Performance Standards and the New Standards® Primary Literary Standards. DoDEA will use its NCEE-based content standards as a basis for conducting subsequent curriculum and standards work, to include a collection of student work for use as exemplars of performance benchmarks, and the description of how such student work meets DoDEA content standards. It will also continue to refine existing NCEE-based standards solely for its own internal applications.

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Strand:

E1 Reading

Reading, fundamentally, is the process of understanding written language. It requires students to recognize words on a page, comprehend what they mean, and say them aloud in ways that clearly convey their meaning. Readers must use a variety of skills and strategies, drawing on what they know about words and their concepts, to build a sense of what the author means to say.

Standard:

E1a: Print-Sound Code

Knowledge of the print-sound code should take root, as the phonemic awareness that children developed in kindergarten deepens and expands. By the end of grade 1, students should be well on the way to mastering phonemic awareness. No longer working on sounds or letters separately, they now are able to put these elements of the code together to read meaningful, connected texts. The set of high-frequency words they recognize also has expanded since kindergarten.

Component:

E1a.1: Knowledge of Letters and Their Sounds

- No equivalent component at this grade level.

Component:

E1a.2: Phonemic Awareness

By the end of the year, first-grade students' phonemic awareness should be consolidated fully. They should be able to demonstrate, without difficulty, all of the skills and knowledge expected at the end of kindergarten. The ability to segment and blend each of the sounds in words—which they began to develop in kindergarten—should now be developed fully. By the end of the year, we expect first-grade students to:

- separate the sounds by saying each sound aloud; and
- blend separately spoken phonemes to make a meaningful word.

Component:

E1a.3: Reading Words.

By the end of grade 1, we expect students to:

- know the regular letter-sound correspondences and use them to recognize or figure out regularly spelled one- and two-syllable words;
- use onsets and rimes to create new words that include blends and digraphs; and
- recognize about 150 high-frequency words as they encounter the words in reading.

Standard:

E1b: Getting the Meaning

First-grade students read aloud leveled books. They sound like they know what they are reading. Readers also must use a variety of skills and strategies, drawing on what they know about words and their concepts, to build a sense of what the author means to say.

Component:

E1b.1: Accuracy

By the end of the year, we expect first-grade students to:

- read Level I books that they have not seen before, but that have been previewed for them, with ninety percent or better accuracy of word recognition (self-correction allowed).

Component:

E1b.2: Fluency

When they read aloud, we expect first graders to sound like they know what they are reading. Fluent readers may pause occasionally to

work out difficult passages. (Such pauses provided they are preceded and following by fluent reading, are more likely to indicate use of self-monitoring strategies than lack of fluency). By the end of the year, we expect first-grade students to:

- independently read aloud from Level I books that have been previewed for them, using intonation, pauses and emphasis that signal the structure of the sentence and the meaning of the text; and
- use the cues of punctuation—including commas, periods, question marks and quotation marks—to guide them in getting meaning and fluently reading aloud.

Component:

E1b.3: Self-Monitoring and Self-Correcting Strategies

Whenever children read, they should use a variety of self-monitoring and word recognition strategies to help them figure out words they do not recognize immediately. By the end of first grade, we expect children to monitor their own reading for accuracy and sense and to use successfully strategies to solve reading problems. To see these strategies—which normally are deployed privately and silently inside children’s minds—it may be necessary to ask children to read aloud from books that are a bit of a stretch for them in terms of difficulty. When they read books like those that are more difficult, we expect to see more overt self-monitoring behaviors, less accuracy and fluency, and slower or less precise comprehension. By the end of the year, we expect first-grade students to:

- notice whether the words sound right, given their spelling;
- notice whether the words make sense in context;
- notice when sentences don’t make sense;
- solve reading problems and self-correct, through strategies that include using syntax and word-meaning clues, comparing pronounced sounds to printed letters, gathering context clues from surrounding sentences or pictures, and deriving new words by analogy to known words and word parts; and
- check their solution to a difficult word against their knowledge of print-sound correspondences and the meaning of the text.

Component:

E1b.4: Comprehension

By the end of first grade, we expect children to demonstrate their comprehension of books that they read independently or with a partner, as well as books that adults read to them. We also expect them to read and understand simple written instructions and functional messages. When they independently read texts they have not seen before, by the end of the year, we expect first-grade students to:

- retell the story;
- tell what the book is about (summarize it);
- describe in their own words what new information they gained from the text; and
- answer comprehension questions similar to those for kindergartners.

The texts that adults read to first graders usually have more complex conceptual and grammatical features than the texts the children read independently, permitting greater depth in the kinds of comprehension children can display. For texts that are read to them, we expect children at the end of first grade also to be able to:

- extend the story;

- make predictions about what might happen next and say why;
- talk about the motives of characters; and
- describe the cause and effects of specific events.

Standard:

E1c: Reading Habits

Through first-grade (and grade 2), expectations for independent and assisted reading are elaborated separately from those expectations for students who are being read to. Books read to students are chosen for their interest and literary value; they usually have greater complexity than a student can handle reading independently or with assistance.

Component:

E1c.1: Independent and Assisted Reading

By the end of the year, we expect first-grade students to:

- read four to more books every day independently or with assistance;
- discuss at least one of these books with another student or a group;
- read some favorite books many times, gaining deeper comprehension;
- read their own writing and sometimes the writing of their classmates; and
- read functional messages they encounter in the classroom (for example: labels, signs, instructions).

Component:

E1c.2: Being Read To

By the end of the year, we expect first-grade students to:

- hear two or four books or other texts (for example, poems, instructions, newspaper or magazine articles, songs) read aloud every day; and
- listen to and discuss every day at least one book or chapter that is longer and more difficult than what they can read independently or with assistance.

Component:

E1c.3: Discussing Books

Daily discussion of books continues to be essential in first grade.

Children now can deal with more complex and longer texts and relate books to teach other. In classroom and small-group discussions of their reading and of books read to them, by the end of the year, we expect first-grade students to:

- demonstrate the skills we look for in the comprehension component of Reading Standard E1b: Getting the Meaning;
- compare two books by the same author;
- talk about several books on the same theme;
- refer explicitly to parts of the text when presenting or defending a claim;
- politely disagree when appropriate;
- ask others questions that seek elaboration and justification; and
- attempt to explain why their interpretation of a book is valid.

Component:

E1c.4: Vocabulary

Like kindergartners, first graders know more words than they can read or write. They still acquire most of their new vocabulary by listening to spoken language and hearing books read aloud, though reading and discussing books enhances the quality and breadth of their word knowledge. Children easily absorb into their vocabulary new words that come up and recur in conversation and reading. By the end of the year, we expect first-grade students to:

- make sense of new words from how the words are used, refining their sense of the words as they encounter them again;
- notice and show interest in understanding unfamiliar words in texts that are read to them;

- talk about the meaning of some new words encountered in independent and assisted reading;
- know how to talk about what words mean in terms of functions and features; and
- learn new words every day from talk and books read aloud.

Strand:

E2 Writing

First-grade students write every day, either independently and with a partner or partners. When given blocks of time for writing, students take responsibility for choosing a topic and developing text around it. Students work for more than a single day on creating a piece of writing. Taking selected pieces of their work through the process of planning, drafting, getting response, revising and editing is very much the norm for first-grade writers.

Standard:

E2a: Habits and Processes

Polished pieces are placed on display, read aloud, presented to someone the child cares about or acknowledged in some public way. Such displays are important ways of recognizing young writers' accomplishments. By the end of the year, we expect first-grade students to:

- write daily;
- generate topics and content for writing;
- reread their work often with the expectation that others will be able to read it;
- solicit and provide responses to writing;
- revise, edit and proofread as appropriate;
- apply a sense of what constitutes good writing (that is, apply some commonly agreed-upon criteria to their own work); and
- polish at least 10 pieces throughout the year.

Standard:

E2b: Writing Purposes and Resulting Genres

Written and oral work are done with more elaboration and confidence than was evidenced in kindergarten. As writers, many begin to show an intention to really connect with a reader.

Component:

E2b.1: Sharing Events, Telling Stories: Narrative Writing

By the end of the year, we expect first-grade students to:

- evidence a plan in their writing, including making decisions about where in a sequence of events they should enter;
- develop a narrative or retelling containing two or more appropriately sequenced events that readers can reconstruct easily, which the author then often reacts to, comments on, evaluates, sums up or ties together;
- frequently incorporate drawings, diagrams or other suitable graphics with written text, as well as gestures, intonation and role-played voices with oral renditions;
- demonstrate a growing awareness of author's craft by employing some writing strategies; and providing some sense of closure;
- imitate narrative elements and derive stories from books they have read or had read to them; and
- in some cases, begin to recount not just events but also reactions, signaled by phrases like "I wondered," "I noticed," "I thought" or "I said to myself."

Component:

E2b.2: Informing Others: Report or Informational Writing

By the end of the year, we expect first-grade students to:

- gather information pertinent to a topic, sort it into major categories—possibly using headings or chapters—and report it to others;
- independently recognize and exclude or delete extraneous information according to appropriate standards governing what “fits”; and
- demonstrate a growing desire and ability to communicate with readers by using details to develop their points; sometimes including pictures, diagrams, maps and other graphics that enhance the reader’s understanding of the text; and paying attention to signing off.

Component:

E2b.3: Getting Things Done

Functional Writing: By the end of the year, we expect first-grade students to:

- give instructions;
- describe, in appropriate sequence and with few details, the steps one must take to make or do a particular thing; and
- claim, mark or identify objects and places.

Component:

E2b.4: Producing and Responding to Literature

By the end of the year, we expect first-grade students to:

- write stories, memoirs, poems, songs and other literacy forms;
- demonstrate not only an awareness of but also an ability to reproduce some of the literacy language and styles they hear and read in the classroom;
- imitate a text or write in a genre when they respond to it;
- re-enact and retell stories, songs, poems;
- plays and other literacy works they encounter;
- produce simple evaluative expressions about the text;
- make simple comparisons of the story to events or people in their own lives;
- compare two books by the same author;
- discuss several books on the same themes;
- make explicit reference to parts of the text when presenting or defending a claim; and
- present a plausible interpretation of a book.

Standard:

E2c: Language Use and Conventions

First graders still write mostly in their own language, producing text that mirrors the sentence structure and vocabulary of their speech. Although they are beginning to develop a sense of writing for a reader, their writers’ voices still are mostly egocentric. They can make more choices about which words to use, in which form and in what order. They also may produce text containing fragments of the language of other writers or speakers.

Component:

E2c.1: Style and Syntax

By the end of the year, we expect first-grade students to:

Take on language of authors:

- vary sentence openers instead of relying on the same sentence stem;
- use a wide range of the syntactic patterns;
- typical of spoken language;
- embed literacy language where appropriate; and
- sometimes mimic sentence structures from various genres they are reading.

Component:

E2c.2: Vocabulary and Word Choice

By the end of the year, we expect first-grade students to:

- produce writing that uses the full range of words in their speaking vocabulary;
- select a more precise word when prompted; and
- use newly learned words they like from their reading, the books they hear read, words on the classroom wall and talk.

Component:

E2c.3: Spelling

By the end of the year, we expect first-grade students to:

- produce writing that contains a large proportion of correctly spelled, high frequency words;
- write text that usually can be read by the child and others—regardless of the scarcity of correctly spelled words—because most of the perceived sounds in unfamiliar words are phonetically represented;
- draw on a range of resources for deciding how to spell unfamiliar words; and
- automatically spell some familiar words and word endings correctly.

Component:

E2c.4: Punctuation, Capitalization and Other Conventions

Although first-grade students will not have consistent control over punctuation, capitalization and other conventions, by the end of the year, we expect first-grade students to:

- demonstrate interest and awareness by approximating the use of some punctuation, including exclamation points, quotation marks, periods, question marks, ellipses, colons, and capitalization of proper names and sentence beginnings; and
- use punctuation accurately and sometimes use conventions that are borrowed from a favorite author to add emphasis, suggest mood, be clear and direct readers to use particular intonations.

Strand:

**E3 Speaking
And Listening**

The most significant feature of language development among kindergartners and first graders is the enormous growth in vocabulary. They continue to talk about topics that are familiar and engaging to them. By this age, they can tell stories that make sense. They can define new words and explain all sorts of things to other students. They are starting to understand the rules of socializing with others.

Standard:

E3a: Habits

Talking in a variety of situations and for different purposes is important as children are beginning to write because their early writings are very dependent on their oral language. They can be expected to listen much more attentively now, and they may begin adapting their speech for different audiences. They engage in longer turns of conversation.

Components:

E3a.1: Talking a Lot

Children’s talk that once primarily took place in one-on-one or small-group settings—now encompasses larger groups and audiences. Their comments and questions become more specific that expressing basic ideas needs or feelings. Language play continues to be an important part of their development. By the end of first grade we expect children to:

- talk about their ideas, experiences and feelings;
- listen to others, signaling comprehension by clarifying, agreeing, empathizing or commenting as appropriate;
- playfully manipulate language;
- listen to and engage in sentence play;

- negotiate how to work and play;
- ask or answer focused questions for the purpose of learning something; and
- share and talk about what they are reading or learning.

In kindergarten and first grade, children transition from speech to print and begin writing daily. We expect children to:

- share and talk about their writing daily; and
- give and receive feedback by asking questions or making comments about truth, clarity, extent, and relevance.

Components:

E3a.2: Talking to One’s Self

By kindergarten, children begin to recognize the value of talking aloud. They move from a nearly unconscious use of language to purposefully articulating problem-solving strategies and self-correcting while reading aloud. By the end of first grade we expect children to:

- make spontaneous corrections to their own behavior, actions or language;
- talk to themselves out loud to make plans, guide behavior or monitor thinking; and
- mimic the language of adults.

While they are reading we expect children to:

- monitor themselves at the word and sentence levels; and
- use a variety of self-correcting strategies.

Components:

E3a.3: Conversing at Length on a Topic

Children know the difference between questions requiring brief responses and invitations to converse. In addition, their ability to make topic-relevant responses and their attempts to initiate and sustain conversation result in lengthier exchanges. By the end of first grade we expect children to:

- initiate conversations by bringing up topics that are likely to interest others;
- initiate and sustain a conversation with comments or questions through at least six or seven exchanges;
- occasionally ask for or provide clarification;
- solicit others’ contributions; and
- mark new topics explicitly.

Components:

E3a.4: Discussing Books

By the end of kindergarten, children use newly learned vocabulary to discuss books that they have read or enjoyed in read-alouds, partner reading or independent reading. They use their own experiences to make sense of and talk about texts and to make predictions. They can retell or reenact events in sequence, respond to simple content questions, and create artwork or written responses that show their comprehension. By the end of first grade, we expect children to:

- compare two works by the same author;
- talk about several books on the same theme;
- refer explicitly to parts of the text when presenting or defending a claim;
- politely disagree when appropriate;
- ask each other questions that seek elaboration and justification; attempt to explain why their interpretation of a book is valid;
- extend the story;
- make predictions and explain their reasoning;

- talk about the motives of characters’;
- describe the causes and effects of specific events;
- retell or summarize the story; and
- describe in their own words new information they gained from the text.

Standard:

E3b: Kinds of Talk and Resulting Genres

In kindergarten and first grade, children engage in a variety of genres to manage their activities, school, playtime and social interactions. These four genres are identified as narrative explaining and seeking information, getting things done, and producing and responding to performances.

Components:

E3b.1: Narrative

Children should require little or no adult prompting to complete a narrative. Their ability to put events in chronological order increases and their level of detail goes beyond basic information and response. They can learn techniques that make their narratives more interesting. They tend to end their narrative before the climax so resolutions require special attention. By the end of first grade, we expect children to:

- independently give a detailed narrative account of an experience in which the actual sequence of numerous events is clear.

Kindergarten and first grade children should learn to include these elements for telling more interesting and varied narratives:

- solicit and/or engage the listener’s attention directly or indirectly before going into the full account;
- orient the listener to the setting;
- describe information and evaluate or reflect on it;
- develop characters by portraying themselves as one or by talking about another character’s goals and motivations;
- include quotations;
- build the sequence of events to a climax and comment on how things were resolved; or
- mark the end of the story directly with a coda to bring the impact of the past experience up to the present time.

Components:

E3b.2: Explaining and Seeking Information

Children’s efforts to seek information from books or conversations with others become more focused and organized. Descriptions broaden from physical features, location and position to multiple characteristics. Their descriptions extend beyond themselves to include the emotions, thinking and intentions of others. By the end of first grade, we expect children to:

- seek or provide information by observing; going to the library; or asking teachers, parents or peers;
- listen to information and exhibit comprehension;
- request or provide explanations of their own and others’ intentions and thinking, especially;
- describe things by focusing on multiple characteristics;
- describe things in more evaluative terms, giving reasons for evaluations; and
- share information that is organized on a topic and supported by a visual aid.

Components:

E3b.3: Getting Things Done

Children should argue an opinion, yet their viewpoint remains primarily

self-centered. They can consider the perspective and needs of another person, giving and/or receiving direction for a lengthier or more complicated sequence of steps. They continue to ask for clarification and take more responsibility for understanding information. By the end of first grade we expect children to:

- listen to, comprehend and carry out directions with five or six simple steps;
- give directions that include several sequenced steps, explaining and elaborating when necessary;
- ask for clarification to carry out more complicated directions, [persisting if necessary];
- use actions, writing or drawing to augment language; and
- engage in extended conversations about a problem with both sides presenting and listening to arguments and solutions.

Components:

E3b.4: Producing and Responding to Performances

Children’s responses to performances of all kinds move beyond simple reactions to include more evaluative statements. Their performances include rehearsal and memorization of a few lines of a play or poem. Producing performances begins to become more public. They can add read-alouds to the memorized performances. By the end of first grade we expect children to:

- give simple evaluative expressions about a performance and explain their reasoning;
- critique a performance based on agreed-upon criteria;
- ask questions about things that they don’t understand;
- draw from a rehearsed repertoire to give a brief performance;
- rehearse and memorize short poems or lines of a play; and
- give a brief author performance or presentation of work.

Standard:

E3c: Language Use and Conventions

Children advance from knowing the most basic rules of interaction to knowing more subtle nuances in speech and social convention,. Frequent playful interchanges with the sounds and meanings of words help to establish the critical connection between oral language and reading and writing. They continue to increase their vocabulary daily.

Components:

E3c.1: Rules of Interaction

Children have generally adjusted to the social conventions of the school setting and understand the need for civility and polite interactions. They are more accountable and are ready to expand their awareness of speaking effectively and appropriately in different circumstances. By the end of first grade we expect children to:

- know and be able to describe rules for school interactions;
- learn rules for polite interactions;
- hold self and others accountable to the rules by using verbal reminders to self and others; and
- speak one at a time, look at and listen to the speaker, yield and/or signal for a chance to speak, and adjust volume to the setting.

Components:

E3c.2: Word Play, Phonological Awareness and Language Awareness

At this age, children are ready to extend word play, as they have developed an appreciation for rhyme and alliteration and have a general awareness of word meanings. Now they are ready to produce certain

types of words and become more conscious of their own grammatical constructions. By the end of first grade we expect children to:

- produce rhyming words and recognize pairs of rhyming words;
- isolate initial consonants in single-syllable words;
- segment the onset and the rime in single-syllable words;
- segment the individual sounds in single-syllable words by saying each sound aloud;
- blend onsets and rimes to form words;
- blend separately spoken phonemes to make a meaningful work;
- play with alliteration, tongue twisters, and onomatopoeia;
- begin to use double meanings or multiple meanings of words for riddles or jokes;
- vary sentence openers and use a wide range of syntactic patterns; and
- examine and discuss the structure of words.

Components:

E3c.3: Vocabulary and Word Choice

Through conversation, daily interaction with adults and peers, and especially reading and being read to, children in kindergarten and first grade continue to increase their vocabulary at an astounding rate. By the end of first grade we expect children to:

- build word maps that show the relationship between words, placing newly acquired words in categories that are relevant;
- begin to define words they know using simple superordinants;
- show flexibility within the domain;
- learn new words from reading being read to daily and classroom study experiences;
- study word families;
- know more than one way to describe a particular referent or verb;
- recognize multiple meanings or words;
- understand that clusters of words refer to the same events or phenomena but from different perspectives; and
- increase vocabulary of verbs, adjectives and adverbs to gain fluency and exercise options in word choice.

The process standards of **problem solving, reasoning and proof, connections communication, and representation** are interwoven and independent with the content standards and are necessary for the comprehensive understanding of mathematics.

Strand: **M1 Numbers and Operations**

Pre-Kindergarten through Grade 12 instructional programs should enable all students to:

- understand numbers, ways of representing numbers, relationships among numbers and number systems;
- understand meanings of operations and how they relate to one another;
- understand how to compute fluently and make reasonable estimates.

In Grade 1, all students should:

- Standards:
- M1a:** recognize place values of numbers (ones, tens, and hundreds) and identify groups of each quantity;
 - M1b:** identify and generate equivalent forms of the same number using concrete objects and number statements;
 - M1c:** recognize wholes and parts of wholes, i.e., $\frac{1}{2}$, $\frac{1}{3}$, and, $\frac{1}{4}$;
 - M1d:** express the concepts of addition and subtraction through drawings, number statements and/or verbal explanation, as well as using plus (+) and minus (-) symbols;
 - M1e:** explain the relationship between addition and subtraction as inverse operations;
 - M1f:** explain and perform addition and subtraction of one-digit whole numbers;
 - M1g:** use estimation based on a benchmark and recognize reasonable answers;
 - M1h:** select, explain, and use appropriate computational procedures to solve real-world problems.

Essential To Know: Students use the concept of place value to decompose and compose whole numbers up to 100.
Students explain, model, and demonstrate the meaning of addition and subtraction with whole numbers.

Strand: **M2 Algebra**

Pre-Kindergarten through Grade 12 instructional programs should enable all students to:

- understand patterns, relations, and functions;
- represent and analyze mathematical situations and structures using algebraic symbols;
- use mathematical models to represent and understand quantitative relationships;
- analyze change in various contexts.

In Grade 1, all students should:

- Standards:
- M2a:** sort, classify, and order objects by two or more attributes and explain how objects were sorted;
 - M2b:** identify, describe, extend and create repeating patterns and number sequences;
 - M2c:** solve open sentences using the commutative property of addition by representing an expression in more than one way;

- M2d:** write mathematical equations using symbols;
- M2e:** model and describe a problem situation using representations, i.e. words, objects, number phrase or sentence;
- M2f:** experiment with equivalency using concrete materials;
- M2g:** identify measurable changes that are predictable, e.g., students grow taller, not shorter, as they get older.

Essential To Know: Students recognize, extend, and create patterns.
Students recognize and describe and describe changes using words and numbers.

Strand: **M3 Geometry**

Pre-Kindergarten through Grade 12 instructional programs should enable all students to:

- analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships;
- specify locations and describe spatial relationships using coordinate geometry and other representational systems;
- apply transformations and use symmetry to analyze mathematical situations;
- uses visualization, spatial reasoning, and geometric modeling to solve problems.

In Grade 1, all students should:

- Standard:
- M3a:** identify two-dimensional shapes in three-dimensional shapes;
 - M3b:** create new shapes by combining or cutting or taking apart existing shapes;
 - M3c:** describe and name the direction and distance in navigating space, e.g., which way, how far, etc.;
 - M3d:** identify and determine whether two-dimensional shapes are congruent (same shape and size) or similar (same shape different size);
 - M3e:** recognize and explore symmetry;
 - M3f:** recognize geometric shapes and structures in the environment and specify their location.

Essential To Know: Students describe the attributes and parts of two- and three-dimensional shapes.

Strand: **M4 Measurement**

Pre-Kindergarten through Grade 12 instructional programs should enable all students to:

- understand measurable attributes of objects and the units, systems, and processes of measurement;
- apply appropriate techniques, tools, and formulas to determine measurements.

In Grade 1, all students should:

- Standard
- M4a:** measure and differentiate objects using both comparative terms and standard units of measure, i.e., inches, centimeters, etc.;
 - M4b:** recognize repeating pattern of time;
 - M4c:** tell time to the hour and half hour using digital and analog timepieces;
 - M4d:** order a sequence of events that occur over time;
 - M4e:** estimate and measure a variety of attributes of objects using standard and nonstandard units;
 - M4f:** make reasonable estimates about the passage of time in commonplace events, e.g., tasks being completed, living things growing, etc.

Essential To Know: Students use standard units of measurement.

Strand: **M5 Data Analysis and Probability**

Pre-Kindergarten through Grade 12 instructional programs should enable all students to:

- formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them;
- select and use appropriate statistical methods to analyze data;
- develop and evaluate inferences and predictions that are based on data;
- understand and apply basic concepts of probability.

In Grade 1, all students should:

- Standard: **M5a:** identify multiple categories for sorting data;
- M5b:** collect, organize, represent and interpret data using concrete objects, pictures, tallies, and graphs;
- M5c:** compare and contrast similar data sets;
- M5d:** construct questions that can be answered by using information from a graph or table;
- M5e:** describe events related to student's experiences as more likely or less likely to happen;
- M5f:** read and interpret graphs and tables to make comparisons and predictions.

Essential To Know: Students collect, sort, represent, and analyze data.

Strand: **M6 Problem Solving**

- Standard: **M6a:** Instructional programs from Pre-Kindergarten through Grade 12 should enable all students to:
- build new mathematical knowledge through problem solving;
 - solve problems that arise in mathematics and in other contexts;
 - apply and adapt a variety of appropriate strategies to solve problems;
 - monitor and reflect on the process of mathematical problem solving.

Strand: **M7 Reasoning and Proof**

- Standard: **M7a:** Instructional programs from Pre-Kindergarten through Grade 12 should enable all students to:
- recognize reasoning and proof as fundamental aspects of mathematics;
 - make and investigate mathematical conjectures;
 - develop and evaluate mathematical arguments and proofs;
 - select and use various types of reasoning and methods of proof.

Strand: **M8 Communication**

- Standard: **M8a:** Instructional programs from Pre-Kindergarten through Grade 12 should enable all students to:
- organize and consolidate their mathematical thinking through communication;
 - communicate their mathematical thinking coherently and clearly to peers, teachers, and others;
 - analyze and evaluate the mathematical thinking and strategies of others;
 - use the language of mathematics to express mathematical ideas precisely.

Strand: **M9 Connections**

Standard: **M9a:** Instructional programs from Pre-Kindergarten through Grade 12 should enable all students to:

- recognize and use connections among mathematical ideas;
- understand how mathematical ideas interconnect and build on one another to produce a coherent whole;
- recognize and apply mathematics in contexts outside of mathematics.

Strand: **M10 Representation**

Standard: **M10a:** Instructional programs from Pre-Kindergarten through Grade 12 should enable all students to:

- create and use representations to organize, record, and communicate mathematical ideas;
- select, apply, and translate among mathematical representations to solve problems;
- use representations to model and interpret physical, social, and mathematical phenomena.

**Science Standards
Grades 1**

Strand:

S1 Scientific Inquiry: The student demonstrates abilities necessary to do scientific inquiry and an understanding about scientific inquiry; that is, the student:

Standards: S1a: asks questions about objects, organisms, and events.

Components:

S1a1. discusses how their questions might be answered.

Standards:

S1b: uses observations to make simple predictions.

S1c: plans and conducts simple explorations and investigations.

Components:

S1c1. gathers materials and/or information needed to conduct investigations.

S1c2. follows logical steps to conduct investigations.

S1c3. uses simple tools such as rulers, magnifiers, and balances to collect data. (u.s. customary units).

S1c4. records data from investigations in an organized and appropriate format (e.g., lab book, log, notebook, t-chart, etc).

Standards:

S1d: identifies patterns based on observations.

S1e: compares objects based on observable and measurable characteristics (e.g., harder/softer, heavier/lighter,)

S1f: analyzes and makes statements about data displayed in a graph.

S1g: communicates scientific explorations through discussions with peers, drawings, graphs, and words.

S1h: identifies examples of safe practices in science.

Components:

S1h1. demonstrates appropriate uses safety goggles, hammers, and hand lenses in science.

Strand:

S2 History and Nature of Science: The student demonstrates an understanding of science as a human endeavor; that is, the student:

Standards: S2a: realizes that people have been doing science for a long time.

S2b: expresses that science involves thinking, asking questions about the world, and trying to answer those questions.

S2c: recognizes that in science people share ideas and findings.

S2d: provides examples of how diverse people (children, fathers, mothers, teachers, gardeners, scientists, etc.) participate in doing science.

Components:

S2d1. demonstrates knowledge of some of things geologists study.

Strand:

S3 Personal & Social Perspectives: The student demonstrates an understanding of safety, types of resources, and changes in the environment; that is, the student:

Standards: S3a: describes basic resources that are found in their environments, such as soil, water, and trees, and other resources that are produced from these resources, such as building materials.

S3b: identifies ways in which humans use resources obtained from the environment and discusses ways some of those resources can be conserved.

Strand:

S4 Science and Technology: The student demonstrates an understanding about science and technology and the nature of technological design; that is, the student:

Standards: S4a: identifies a simple problem, proposes a solution for the problem, and then evaluates the solution in terms of its ability to solve the problem.

S4b: recognizes that technological solutions are human designed.

S4c: recognizes that things found in nature are different from those that are made by humans.

Strand:

S5 Physical Science: The student demonstrates an understanding of matter, motion, and energy; that is, the student:

Standards: S5a: examines how properties of objects may differ from the properties of the materials by which they were made.

Components:

S5a1. groups common objects according to the materials of which they are made.

S5a2. compares and contrasts different materials based on properties (e.g., hardness, flexibility, and magnetic attraction).

Standards:

S5b: demonstrates that pushes and pulls can change the motion of objects.

Components:

S5b1. describes how the motion of a variety of objects changes when pushed or pulled.

Standards:

S5c: builds an understanding that the motion of objects is affected by a "pull" towards earth.

Components:

S5c1. demonstrates that things fall towards the ground if not held up.

Standards:

S5d: examines how light travels in a straight line until it reaches an object; and that it can travel through or be reflected off the object.

Components:

S5d1. shows that light travels in a straight line until it reaches an object.

S5d2. demonstrates that light travels through some objects, but not others.

S5d3. demonstrates that light can be reflected off certain objects.

Strand:

S6 Life Science: The student demonstrates an understanding of the characteristics of organisms, their life cycles, and their environments; that is, the student:

Standards: S6a: examines characteristics of plants and animals and describes how those characteristics help the organism to live.

Components:

S6a1. observes and describes structures and responses that enable plants to stay alive.

S6a2. observes and describes structures and behaviors that enable animals to stay alive.

S6a3. identifies physical characteristics that enable an organism to survive (e.g., legs for moving, sharp teeth for eating, hard shell for protection).

S6a4. provides examples of diverse structures (e.g., wings, legs, fins) that serve similar functions (e.g., movement).

S6a5. identifies differences in individuals with the same parents.

S6a6. describes ways in which individuals within a population (including humans) can vary.

Standards:

S6b: determines how an organism's habitat provides for its basic needs.

Components:

S6b1. observes and explains that there are a variety of local environments (e.g., field, forest, marsh, river).

S6b2. provides examples of how an organism depends on other organisms

Strand:

S7 Earth & Space Sciences: The student demonstrates an understanding of Earth materials, objects in the sky, and changes in Earth and sky; that is, the student:

Standards: S7a: examines how rocks and soils can vary greatly in appearance.

Components:

S7a1. groups rocks by color, texture, size, and other observable properties.

S7a2. observes and describes differences in the physical appearance of sand and soil.

S7a3. identifies the components of soil (i.e., rocks, sand, and the remains of plants and animals).

Standards:

S7b: investigates how weather can cause change.

Components:

S7b1. describes and provides examples of the effects of rain on different materials, based on extended investigations.

S7b2. describes and provides examples of the effects of wind on different materials.

S7b3. observes and describes changes in water that affect materials (e.g., freezing water, hail).

Standards:

S7c: monitors the apparent path of the Sun across the sky.

Components:

S7c1. observes safely and records the path of the Sun's movement during the day.

S7c2. describes how the Sun's changing position in the sky causes shadows to change.

Social Studies: Grade 1 - Families

Standards Introduction: The standards for first grade focus on the concept of family. Instruction centers on the interdependence within various family structures. Students learn vocabulary associated with time, seasons of the year, cultural celebrations, and the family unit. Students use maps to locate familiar places and geographic features. Citizenship education emphasizes the roles and responsibilities within the family as part of a community. Students build time lines, identify symbols, and learn basic concepts of economy.

SK – Skills

The Social Studies program promotes essential skills to increase the students ability to acquire information and manipulate data, develop and present policies and debates, construct new knowledge, and participate in groups. Each skill is dependent upon and enriched by all other skills, so that the learner can:

Skills: **SK1a:** use picture cues and picture captions to aid comprehension.
SK1b: locate places on a map and globe.
SK1c: make decisions based on data.
SK1d: demonstrate responsibility for one’s actions.
SK1e: arrange related events in chronological order.
SK1f: participate in problem solving simulations using technology.

Strand/Theme:

SS1 Citizenship

Social studies programs should include experiences that provide for the study of the ideals, principles, and practices of citizenship in a democratic republic, so that the learner can:

Standards: **SS1a:** recognize symbols and leaders of the United States.
SS1b: practice good citizenship.
SS1c: relate self and the family as part of a community.

Strand/Theme:

SS2 Culture

Social studies programs should include experiences that provide for the study of culture and cultural diversity, so that the learner can:

Standards: **SS2a:** define and use vocabulary appropriate to family structure.
SS2b: recognize roles of family members and important people.
SS2c: compare various types of shelter, food, and clothing.
SS2d: compare and contrast roles, customs, and activities of families.
SS2e: use personal examples to identify shelter, food, and clothing and the need to belong.
SS2f: describe customs of specific holidays.

Strand/Theme:

SS3 Time, Continuity, and Change

Social studies programs should include experiences that provide for the study of the way human beings view themselves in and over time, so that the learner can:

Standards: **SS3a:** trace family information over time.
SS3b: compare how people of long ago and people today meet similar needs.
SS3c: distinguish among past, present, and future.
SS3d: compare/contrast the seasons of the year.

Strand/Theme:

SS4 Space and Place

Social studies programs should include experiences that provide for the study of space and place, so that the learner can:

Standards:

- SS4a:** use a map to locate and describe familiar places in home, classroom, school, and community.
- SS4b:** identify directions (e.g., east, south, north, west).
- SS4c:** distinguish between land and water masses on a globe.
- SS4d:** explain patterns of movement (e.g., classroom home/school, travel, etc.).

Strand/Theme:

SS5 Individual Development and Identity

Social studies programs should include experiences that provide for the study of individual development and identity, so that the learner can:

Standards:

- SS5a:** recognize and describe various kinds of emotions.
- SS5b:** demonstrate personal responsibilities.
- SS5c:** show respect and concern for rights of others.
- SS5d:** recognize the value of community and the need to belong.

Strand/Theme:

SS6 Individuals, Groups, and Institutions

Social studies programs should provide for the study of the interaction among individuals, groups, and institutions, so that the learner can:

Standards:

- SS6a:** describe how a community depends upon its helpers.
- SS6b:** participate on walks and trips to places in the community and relate experiences.

Strand/Theme:

SS7 Production, Distribution, and Consumption

Social studies programs should include experiences that provide for the study of how people organize for the production, distribution, and consumption of goods and services, so that the learner can:

Standards:

- SS7a:** discuss the importance of sharing resources.
- SS7b:** describe how we depend on workers with specialized skills and how this results in exchange of goods and services.
- SS7c:** describe the concept of earning, saving, and spending money.
- SS7d:** distinguish between wants and needs.

Strand/Theme:

SS8 Power, Authority, and Governance

Social studies programs should include experiences that provide for the study of how people create and change structures of power, authority, and governance, so that the learner can:

Standards:

SS8a: justify the need for rules and appropriate standards of behavior.

SS8b: describe the consequences of breaking rules.

SS8c: explain how voting is a way to make a decision.

Strand/Theme:

SS9 Science, Technology, and Society

Social studies programs should include experiences that provide for the study of the relationships among science, technology, and society, so that the learner can:

Standards:

SS9a: list examples of pollution.

SS9b: recycle, reuse, reduce.

SS9c: describe how our physical environment influences a family's food, clothing, and shelter.

SS9d: relate how the technological advances of communication and transportation affect society.

SS9e: interpret information from pictures, graphics, media.

Strand/Theme:

SS10 Global Connections

Social studies programs should include experiences that provide for the study of global connections and interdependence, so that the learner can:

Standards:

SS10a: develop and use skills to communicate with individuals and grades.

SS10b: define basic social concepts of cooperation, conflicts, and competition.

Health Education: Grade 1

In addition to the content standards, Health Education teachers must instill health literacy skills (HESK) into classroom activities. The six HESK have a two-fold benefit. First, they promote personal, family, and community health. Second, they teach essential and transferable skills that include accessing data, analyzing information, setting goals, and communicating ideas.

Strand:

HESK Health Literacy Skills

The student applies health literacy skills in concert with health concepts to enhance personal, family and community health; that is, the student will:

Standards:

- HESK1:** access valid health information;
- HESK2:** practice health-enhancing behavior;
- HESK3:** analyze influences on health;
- HESK4:** use interpersonal communications skills to enhance health;
- HESK5:** use goal setting and decision making skills to enhance health; and
- HESK6:** advocate for health.

Strand:

HE1 Personal and Community Health

The student understands the basic concepts of hygiene, health habits, and health promotion; that is, the student will:

Standards:

- HE1a:** define health;
- HE1b:** describe barriers to prevent disease transmission (e.g., bandage, glove, skin);
- HE1c:** explain roles of familiar health professionals;
- HE1d:** explain why good hygiene is important to health; and
- HE1e:** describe stages of common childhood illnesses (i.e., cold, flu, eye infection, blisters).

Strand:

HE2 Safety and Injury Prevention

The student demonstrates understanding of basic concepts related to safety, injury prevention or sudden illness, and prevention of child abuse and child neglect; that is, the student will:

Standards:

- HE2a:** distinguish between safe and unsafe behaviors practiced at home, at school, and in the community (i.e., car, pedestrian, bicycle, playground, bus);
- HE2b:** list appropriate safe behaviors with others (e.g., being assertive, recognizing personal space);
- HE2c:** explain how to get help in an emergency (e.g., dial and communicate with 911 or counterpart);
- HE2d:** distinguish between good, bad, confusing, and unkind touch; and
- HE2e:** compare responsibilities of several health professionals.

Strand:

HE3 Nutrition and Physical Activity

The student understands how healthful nutrition and physical activity contribute to growth and energy and help prevent chronic diseases such as heart disease, cancer, and diabetes; that is, the student will:

Standards:

- HE3a:** identify food groups that make up a healthful diet;
- HE3b:** share cultures and customs as elements influencing food choices; and

HE3c: recognize types of physical activity that help the body.

Strand

HE4 Mental Health

The student understands how mental health contributes to general well-being; that is, the student will:

Standards:

HE4a: recognize uniqueness and similarities of self and others;

HE4b: demonstrate appropriate ways to express needs, wants, and feelings; and

HE4c: discuss ways emotions are expressed verbally and non-verbally.

Strand

HE5 Alcohol, Tobacco, and Other Drugs

The student understands licit and illicit drugs and how to prevent abuse and access intervention and treatment resources; that is, the student will:

Standard:

HE5a: explain the meaning of warning labels and signs on commonly used household products; and

HE5b: define the term “drug.”

Strand

HE6 Family Life and Human Sexuality

The student understands the developmental changes that occur as he or she grows and matures through childhood to young adulthood and how these changes prepare one for adult roles in the family and society; that is, the student will:

Standards:

HE6a: identify what it means to be a responsible family member;

HE6b: cite the qualities needed in a healthful relationship; and

HE6c: describe childhood, adolescence, and adulthood.

Physical Education: Grade 1

To a greater extent than in the core academic subjects, Physical Education teachers must infuse personal and social skill development in helping students meet and exceed the content standards. Consequently, the presentation of the Physical Education Standards is preceded by a list of complementary Personal and Social Development Skills (PESK). Including the PESK components in teaching the Physical Education standards is critical in promoting lifelong, healthy physical activity and in realizing the wide range of benefits associated with participation in dance, sports, games, and other physical activities.

Strand:

PESK Personal and Social Development Skills The student applies responsible personal and social development skills in a physical activity setting. In Grade 1 all students will:

Standards:

- PESK1:** participate fully and communicate cooperatively with others;
- PESK2:** perform activities safely and follow rules of etiquette and ethical behavior;
- PESK3:** display age appropriate self-control and discipline;
- PESK4:** display a willingness to receive and use feedback to improve performance;
- PESK5:** accept the decisions of and respond positively to teachers/officials in charge of games/activities;
- PESL6:** choose healthful physical activities to experience fun, challenge, self-expression and/or social interaction;
- PESK7:** display an interest in and assist and encourage others' efforts;
- PESK8:** display behaviors that are supportive and inclusive;
- PESK9:** self-initiate behaviors that contribute to personal and partner/group effort;
- PESK10:** adjust behavior to prevent/reconcile conflicts.

Strand:

PE1 Motor Skills and Movement Patterns Competency in motor skills and movement patterns is needed to perform a variety of physical activities. In Grade 1 all students will:

Standards:

- PE1a:** demonstrate controlled locomotor skills of walking, running, jumping, and sliding in different directions;
- PE1b:** demonstrate basic nonlocomotor skills (e.g., turning, twisting, balancing, rolling, transferring weight, jumping and landing, stretching, curling) and perform nonlocomotor sequences alone, with a partner, or with a group of people;
- PE1c:** adapt kicking, striking, and throwing patterns to simple, changing environments (e.g., kicking, moving ball, throwing a friendly toss);
- PE1d:** demonstrate moving to a rhythmic beat by keeping time using movement skills;
- PE1e:** explore simple tumbling sequences that include balancing, rolling, transferring weight, and flight;
- PE1f:** respond to movement terminology (e.g., spin, turn, roll, skip, gallop, jog, run, throw, toss);
- PE1g:** use feedback to improve performance;

- PE1h:** follow simple rules and safety procedures consistently;
- PE1i:** use equipment and space safely and properly for movement; and
- PE1j:** describe the importance of protective equipment in preventing injury (e.g., helmets, elbow/kneepads, wrist guards, proper shoes, clothing).

Strand:

PE2 Physical Activity and Fitness

A physically active lifestyle is essential to maintain a health-enhancing level of physical fitness. In Grade 1 all students will:

Standards:

- PE2a:** participate regularly in moderate-to-vigorous physical activities during physical education class and recess;
- PE2b:** engage for short periods of time in sustained, moderate-to-vigorous physical activities that develop aerobic capacity;
- PE2c:** demonstrate how to warm up before and cool down after physical activity;
- PE2d:** engage in appropriate physical activities that develop muscular strength and endurance of arms, shoulders, abdomen, and legs (e.g., climbing, hanging, taking weight on hands);
- PE2e:** demonstrate moving each major joint through its full range of motion;
- PE2f:** demonstrate breathing slowly and deeply to relax;
- PE2g:** describe physical activities that provide opportunities for enjoyment;
- PE2h:** identify how regular physical activity strengthens the heart, lungs, and muscular system;
- PE2i:** identify heart rate, breathing, body temperature, feelings of fatigue, and the importance of drinking water during moderate-to-vigorous physical activity.

Visual Arts: Grade 1

Strand:

VA1 Media, Techniques, and Processes

Demonstrates understanding and can apply media, techniques, and processes.

Standards:

VA1a: The student increases control in using media, techniques, and processes while creating works of art.

VA1b: The student develops skills with materials, media, technology, techniques, and processes as a means of expressing visual ideas.

VA1c: The student uses art materials and tools, including technology, in a safe and responsible manner.

VA1d: The student uses art materials and tools, including technology, in a safe and responsible manner.

Strand:

VA2 Structures and Functions

Demonstrates knowledge of structures and functions.

Standards:

VA2a: The student demonstrates understanding of the elements of art with an emphasis on space and texture.

VA2b: The student identifies and demonstrates understanding of principles of art with emphasis on balance and contrast.

VA2c: The student produces arts to communicate ideas and personal emotions.

Strand:

VA3 Subject Matter, Symbols, and Ideas

Chooses and evaluates a range of subject matter, symbols, and ideas.

Standards:

VA3a: The student recognizes that meaning can be communicated through use of subject matter, symbols, and ideas.

VA3b: The student creates works of art with a variety of subjects, symbols, and ideas.

VA3c: The student identifies themes found in works of art.

VA3d: The student recognizes purpose and uses themes, styles, and subject matter in artwork.

Strand:

VA4 History and Culture

Demonstrates understanding of the visual arts in relation to history and culture.

Standards:

VA4a: The student identifies common subjects, ideas, and themes in art forms from different cultures to include that of the host nation.

VA4b: The student understands the cultural contributions to the arts appropriate to their developmental level.

VA4c: The student creates art that reflects an exposure to history and culture.

Strand:

VA5 Characteristics and Merits of Work

Reflects upon and assesses the characteristics and merits of their work and the work of others.

Standards:

VA5a: The student describes what they like and dislike about a work of art and tell why using art concepts and vocabulary.

VA5b: The student examines artwork and identifies reasons the artist may have had for creating that work.

VA5c: The student uses developmentally appropriate criteria and vocabulary to discuss and evaluate works of art.

Strand:

VA6 Connections to Other Disciplines

Makes connections between the visual arts and the other disciplines.

Standards:

VA6a: The student recognizes common subjects and central ideas in works from different cultures and relate these to other disciplines.

VA6b: The student names and discusses art career opportunities.

VA6c: The student integrates what is learned in art with other curricular areas.

Strand:

VA7 Technology Integration

Understands and creates art through technology.

Standards:

VA7a: The student acquires technical skills and vocabulary as developmentally appropriate.

VA7b: The student expands and uses technical skills to create art.

VA7c: The student integrates traditional art production techniques with new technology to create art.

Music: Grade 1

Strand:

MU1

Performs alone and/or with others a varied repertoire of music

Standards:

MU1a: The student sings on pitch a variety of songs in various keys, meters, and styles.

MU1b: The student performs grade appropriate rhythmic and melodic patterns.

MU1c: The student experiments with a variety of classroom instruments and performs independently while others sing or play the same or contrasting parts.

Strand:

MU2

Reads and notates music

Standards:

MU2a: The student reads simple pitch, and rhythmic notation.

MU2b: The student graphically notates musical sounds and ideas.

Strand:

MU3

Listens to, responds to, and Describes music

Standards:

MU3a: The student listens to music of various tempos, meters, dynamics and styles.

MU3b: The student responds to music of various tempos, meters, dynamics, and styles.

MU3c: The student describes characteristics of music using appropriate vocabulary.

MU3d: The student explores simple improvisation.

Strand:

MU4 History and Culture

Demonstrates understanding of music in relation to history and culture.

Standard:

MU4a: The student performs simple music that reflects an awareness of history and culture, to include the host nation.

Strand:

MU5 Characteristics and Merits of Works and Performances

Reflects upon and assesses the characteristics and merits in performances in their music and the music of others.

Standard:

MU5a: The student describes what they like and dislike about a work of music by using concepts and a developing vocabulary of music.

MU5b: The student identifies reasons the musician may have had for creating/performing that work.

Strand:

MU6 Connections to Other Disciplines:

Makes connections between music and the other disciplines.

Standard:

MU6a: The student identifies connections between music and other disciplines in the curriculum.

MU6b: The student relates simple concepts of what is learned in music with other curricular areas.

Music Standards: Grade 1

Strand:

**MU7 Technology
Integration**

Understands and creates music through technology.

Standard:

MU7a: The student acquires technology skills and vocabulary that are developmentally appropriate.