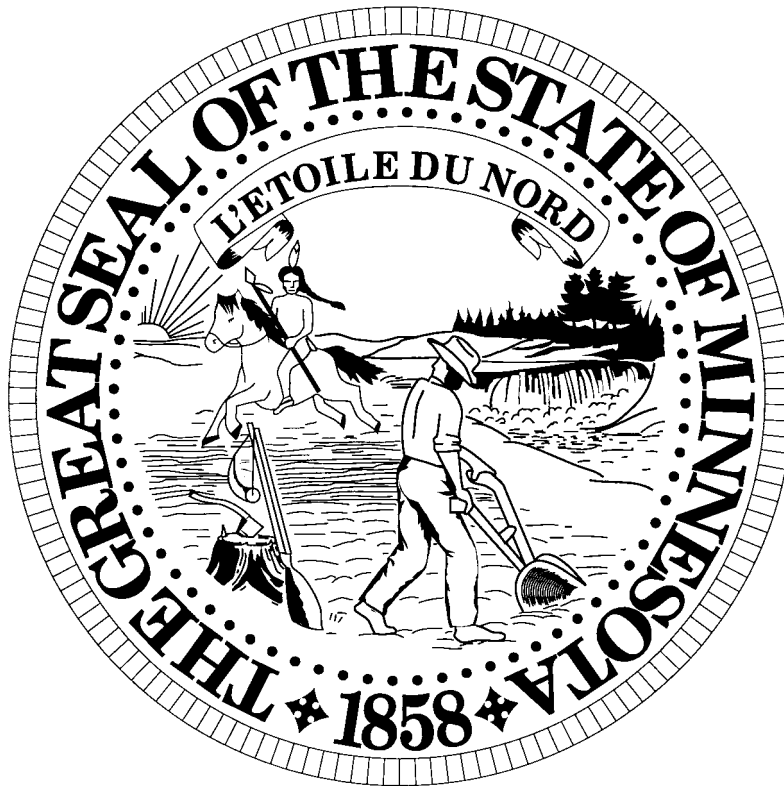


Minnesota

State Register

Rules and Official Notices Edition



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State Register

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The *State Register* is the official publication of the State of Minnesota, published weekly to fulfill the legislative mandate set forth in *Minnesota Statutes* § 14.46. The *State Register* contains:

- proposed, adopted, exempt, expedited emergency and withdrawn rules
- executive orders of the governor
- appointments
- proclamations and commendations
- commissioners' orders
- revenue notices
- official notices
- state grants and loans
- contracts for professional, technical and consulting services
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#24	Monday 15 December	Noon Tuesday 9 December	Noon Wednesday 3 December
#25	Monday 22 December	Noon Tuesday 16 December	Noon Wednesday 10 December
#26	Monday 29 December	NOON MONDAY 22 DECEMBER	Noon Wednesday 17 December

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St. Paul, MN 55155 Website: www.courts.state.mn.us

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Minnesota Rules: Amendments and Additions

NOTICE: How to Follow State Agency Rulemaking in the State Register

The *State Register* is the official source, and only complete listing, for all state agency rulemaking in its various stages. State agencies are required to publish notice of their rulemaking action in the *State Register*. Published every Monday, the *State Register* makes it easy to follow and participate in the important rulemaking process. Approximately 80 state agencies have the authority to issue rules. Each agency is assigned specific **Minnesota Rule** chapter numbers. Every odd-numbered year the **Minnesota Rules** are published. The current 1999 set is a 13-volume bound collection of all adopted rules in effect at the time. Supplements are published to update this set of rules. Generally speaking, proposed and adopted exempt rules do not appear in this set because of their short-term nature, but are published in the *State Register*.

An agency must first solicit **Comments on Planned Rules** or **Comments on Planned Rule Amendments** from the public on the subject matter of a possible rulemaking proposal under active consideration within the agency (*Minnesota Statutes* §§ 14.101). It does this by publishing a notice in the *State Register* at least 60 days before publication of a notice to adopt or a notice of hearing, or within 60 days of the effective date of any new statutory grant of required rulemaking.

When rules are first drafted, state agencies publish them as **Proposed Rules**, along with a notice of hearing, or a notice of intent to adopt rules without a hearing in the case of noncontroversial rules. This notice asks for comment on the rules as proposed. Proposed emergency rules and withdrawn proposed rules are also published in the *State Register*. After proposed rules have gone through the comment period, and have been rewritten into their final form, they again appear in the *State Register* as **Adopted Rules**. These final adopted rules are not printed in their entirety in the *State Register*, only the changes made since their publication as Proposed Rules. To see the full rule, as adopted and in effect, a person simply needs two issues of the *State Register*, the issue the rule appeared in as proposed, and later as adopted. For a more detailed description of the rulemaking process, see the most current edition of the *Minnesota Guidebook to State Agency Services*.

The *State Register* features partial and cumulative listings of rules in this section on the following schedule: issues #1-13 inclusive; issues #14-25 inclusive; issue #26 cumulative for issues #1-26; issues #27-38 inclusive; issue #39, cumulative for issues #1-39; issues #40-51 inclusive; and issues #1-52 (or 53 in some years), cumulative for issues #1-52 (or 53). An annual subject matter index for rules was separately printed usually in August, but starting with Volume 19 now appears in the final issue of each volume. For copies or subscriptions to the *State Register*, contact Minnesota's Bookstore, 117 University Avenue, St. Paul, MN 55155 (612) 297-3000, or toll-free 1-800-657-3757.

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Adopted Rules

A rule becomes effective after the requirements of *Minnesota Statutes* §§ 14.05-14.28 have been met and five working days after the rule is published in the *State Register*, unless a later date is required by statutes or specified in the rule.

If an adopted rule is identical to its proposed form as previously published, a notice of adoption and a citation to its previous *State Register* publication will be printed.

If an adopted rule differs from its proposed form, language which has been deleted will be printed with strikeouts and new language will be underlined. The rule's previous *State Register* publication will be cited.

Expedited and Emergency Rules

Provisions for the Commissioner of Natural Resources to adopt emergency expedited Game and Fish Rules are specified in *Minnesota Statutes* §§ 84.027. The commissioner may adopt emergency expedited rules when conditions exist that do not allow the Commissioner to comply with requirements for emergency rules. The Commissioner must submit the rule to the attorney general for review and must publish a notice of adoption that includes a copy of the rule and emergency conditions. Emergency expedited rules are effective upon publication in the *State Register*, and may be effective up to seven days before publication under certain emergency conditions. Emergency expedited rules are effective for the period stated or up to 18 months.

Department of Education

Adopted Permanent Rules Relating to Statewide Rigorous Core Academic Standards

The rules proposed and published at *State Register*, Volume 28, Number 14, pages 467-478, October 6, 2003 (28 SR 467), are adopted as proposed.

Racing Commission

Adopted Permanent Rules Relating to Racing

The rules proposed and published at *State Register*, Volume 28, Number 7, pages 143-145, August 18, 2003 (28 SR 143), are adopted as proposed.

Official Notices

Pursuant to *Minnesota Statutes* § 14.101, an agency must first solicit comments from the public on the subject matter of a possible rulemaking proposal under active consideration within the agency by publishing a notice in the *State Register* at least 60 days before publication of a notice to adopt or a notice of hearing, and within 60 days of the effective date of any new statutory grant of required rulemaking. The *State Register* also publishes other official notices of state agencies and non-state agencies, including notices of meetings and matters of public interest.

Minnesota Office of Administrative Hearings, and Minnesota Department of Labor and Industry

Workers' Compensation Division

REQUEST FOR COMMENTS on Possible Amendment to Joint Rules Governing Workers' Compensation Litigation Procedures, *Minnesota Rules*, chapter 1415 and portions of chapter 5220

Subject of Rules. The Minnesota Office of Administrative Hearings (OAH) and Minnesota Department of Labor and Industry (DLI) request comments on possible amendment to rules governing workers' compensation litigation and administrative conference procedures. OAH and DLI are considering rule amendments to update the rules in light of statutory and case law changes over the last 19 years. The rules are expected to revise joint rules over matters within the authority of both agencies, move matters within the authority of OAH to a separate set of rules, revise outdated procedures, repeal unnecessary rules, and clarify procedures in problem areas.

Persons Affected. The amendment to the rules would likely affect parties in workers' compensation proceedings, primarily injured employees, employers, workers' compensation insurers, workers' compensation attorneys, health care providers, vocational rehabilitation providers, and health insurance companies or entities paying for workers' compensation medical care or lost wages. They may also affect other entities having an interest in workers' compensation proceedings, such as entities seeking to obtain payment from the proceeds of a workers' compensation settlement or award.

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Statutory Authority. *Minnesota Statutes*, sections 14.51, 175.17(2), 175.171(2), 176.081, subd. 6 and 12; 176.155, subd. 5; 176.231, subd. 5; 176.285; 176.312; 176.361, subd. 1; and 176.83, subd. 1, 7, 9, 10, 12, and 15 provide authority for the agencies to adopt or amend the rules.

Public Comment. Interested persons or groups may submit comments or information on these possible rules in writing until further notice is published in the *State Register* that the agencies intend to adopt or to withdraw the rules. OAH and DLI do not currently contemplate appointing an advisory committee to comment on the possible rules.

Rules Drafts. The agencies have prepared a preliminary draft of proposed rule amendments. A preliminary draft of proposed rules is expected to be available on the OAH Web site at www.oah.state.mn.us before the end of December 2003.

Agency Contact Person. Written comments, questions, and requests for more information on these possible rules should be directed to: Sandra Haven at the Office of Administrative Hearings, 100 Washington Ave. S., Suite 1700, Minneapolis, MN 55401, **phone:** (612) 341-7642, **fax:** (612) 349-2665. TTY users may call OAH at (612) 341-7346. E-mail comments should be directed to Penny Johnson at the Office of Administrative Hearings at penny.johnson@state.mn.us.

Alternative Format. Upon request, this Request for Comments can be made available in an alternative format, such as large print, Braille, or cassette tape. To make such a request, please contact the agency contact person at the address or telephone number listed above.

NOTE: Comments received in response to this notice will not necessarily be included in the formal rulemaking record submitted to the administrative law judge when a proceeding to adopt rules is started. The agency is required to submit to the judge only those written comments received in response to the rules after they are proposed. If you submitted comments during the development of the rules and you want to ensure that the Administrative Law Judge reviews the comments, you should resubmit the comments after the rules are formally proposed.

Dated: December 1, 2003

Minnesota Comprehensive Health Association

Notice of Meeting of the Board of Directors

NOTICE IS HEREBY GIVEN that a meeting of the Minnesota Comprehensive Health Association's (MCHA) Board of Directors will be held at 9:00 a.m. on Thursday, December 11, 2003. The meeting will take place at the MCHA executive office located at 5775 Wayzata Blvd., Suite 900, St. Louis Park, MN.

For additional information, please call Lynn Gruber at (952) 593-9609

Department of Education

Benchmarks for the State Academic Standards in Language Arts, Mathematics and the Arts

Consistent with the requirements of *Minnesota Statutes*, section 120B.023, the commissioner hereby publishes the benchmarks for the state academic standards in language arts, mathematics and the arts. Benchmarks specify the academic knowledge and skills that schools must offer and students must achieve to satisfactorily complete a state standard.

ACADEMIC STANDARDS IN LANGUAGE ARTS

3501.0505 KINDERGARTEN STANDARDS.

Subpart 1. Reading and literature. The student will listen to and begin to read and understand grade-appropriate English language text.

STANDARD

A. Word recognition, analysis, and fluency. The student will understand and apply knowledge of the sounds of the English language (phonemic awareness) and of the sound-symbol relationship (phonics).

BENCHMARK

The student will:

- (1) see, hear, say, and write the basic sounds (phonemes) of the English language;
- (2) match consonant and short vowel sounds to appropriate letters, say the common sounds of most letters, and begin to write consonant-vowel-consonant words;
- (3) identify and name uppercase and lowercase letters of the alphabet;
- (4) identify beginning consonant sounds and ending sounds in single-syllable words;
- (5) identify, produce, and say rhyming words in response to an oral prompt; and

(6) read ten high-frequency words.

STANDARD

B. Vocabulary expansion. The student will use a variety of strategies to develop and expand reading, listening, and speaking vocabularies.

BENCHMARK

The student will:

- (1) use words to describe and name people, places, and things;
- (2) use words to describe location, size, color, shape, and direction;
- (3) use words to describe actions;
- (4) use context to predict and infer word meanings; and
- (5) learn new words through explicit instruction.

STANDARD

C. Comprehension. The student will listen to and understand the meaning of text.

BENCHMARK

The student will:

- (1) demonstrate literal comprehension by asking and answering questions about narrative and informational text;
- (2) make predictions from illustrations and story content;
- (3) write or draw a response that demonstrates comprehension; and
- (4) relate texts to prior knowledge and experiences.

STANDARD

D. Literature. The student will read or listen to a variety of texts.

BENCHMARK

The student will:

- (1) listen to and understand the meaning of texts representing a variety of genres, such as poetry, folk tales, drama, fantasy, realistic fiction, informational and biographical texts from America, as well as from other countries;
- (2) identify main characters and story events and actions;
- (3) retell familiar stories using beginning, middle, and end;
- (4) respond to literature using details from the story to make personal connections; and
- (5) listen to and look at literature for personal enjoyment.

Subp. 2. Writing. The student will write clearly and coherently to effectively communicate for a variety of audiences and purposes.

STANDARD

A. Types of writing. Writing is addressed in subpart 1, item A.

STANDARD

B. Elements of composition. Standards under this heading may be locally determined.

STANDARD

C. Spelling, grammar, and usage. The student will begin to recognize correct spelling and punctuation.

BENCHMARK

The student will:

- (1) use a period after sentences when prompted; and
- (2) use knowledge of basic phonics to spell.

STANDARD

D. Research. Standards under this heading may be locally determined.

STANDARD

E. Handwriting and word processing. The student will form letters and numbers.

BENCHMARK

The student will:

- (1) correctly form many of the uppercase and lowercase letters of the alphabet, monitor, and discuss the differences;

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- (2) correctly write the numbers zero through nine;
- (3) write left to right and top to bottom; and
- (4) print the student's first and last names.

Subp. 3. **Speaking, listening, and viewing.** The student will speak clearly and effectively for a variety of purposes and audiences and actively listen to, view, and evaluate oral communication and media.

STANDARD

A. Speaking and listening. The student will communicate effectively through listening and speaking.

BENCHMARK

The student will:

- (1) participate in and follow agreed-upon rules for conversation and formal discussions;
- (2) follow two-step directions;
- (3) attend to and understand the meaning of messages;
- (4) communicate needs, feelings, and ideas to peers and adults;
- (5) recite and respond to poems, rhymes, and songs;
- (6) respond orally to language patterns in stories and poems;
- (7) use voice level appropriate for language situation; and
- (8) ask and respond to questions.

STANDARD

B. Viewing. The student will become familiar with the structure of printed material.

BENCHMARK

The student will:

- (1) follow print (words and text) from left to right and top to bottom; and
- (2) turn pages sequentially from front to back.

3501.0510 GRADE 1 STANDARDS.

Subpart 1. **Reading and literature.** The student will read and understand grade-appropriate English language text.

STANDARD

A. Word recognition, analysis, and fluency. The student will understand and apply knowledge of the sounds of the English language (phonemic awareness), the sound-symbol relationship (phonics), and word recognition strategies to read grade-level materials with accuracy and emerging fluency.

BENCHMARK

The student will:

- (1) identify letters, words, and sentences;
- (2) match spoken words with print;
- (3) see, hear, say, and write the letters, blends, and diagraphs that correspond with the common sounds of the English language;
- (4) segment and blend beginning, middle, and ending sounds (phonemes) to read unfamiliar words;
- (5) divide spoken and written words into syllables and identify phonemes and phonograms within words;
- (6) use letter sounds, word patterns, and parts of simple compound words to decode unfamiliar words when reading;
- (7) generate rhyming words in a rhyming pattern;
- (8) read 100 high-frequency words;
- (9) notice when reading breaks down, reread and use phonetic and other strategies to self-correct; and
- (10) read aloud grade-appropriate text with accuracy and emerging fluency.

STANDARD

B. Vocabulary expansion. The student will use a variety of strategies to develop and expand reading, listening, and speaking vocabularies.

BENCHMARK

The student will:

- (1) learn new words through explicit instruction and independent reading;
- (2) use descriptive words when speaking of people, places, things, actions, and events;
- (3) identify and generate antonyms and synonyms, and use them to understand and express word meaning; and
- (4) use context to predict and infer word meanings.

STANDARD

C. Comprehension. The student will actively engage in the reading process and use a variety of comprehension strategies to understand the meaning of texts that have been read or listened to.

BENCHMARK

The student will:

- (1) demonstrate literal and inferential comprehension by asking and answering questions about narrative and informational text;
- (2) recall and use prior learning and preview text to prepare for reading;
- (3) monitor comprehension and reread as needed at points of difficulty, using strategies to self-correct when needed;
- (4) make predictions of outcomes and verify from texts;
- (5) identify or infer topic;
- (6) make simple inferences and draw and support conclusions;
- (7) use story illustrations to enhance comprehension;
- (8) write or draw a response that shows comprehension of a story that has been read; and
- (9) relate texts to prior knowledge and experiences.

STANDARD

D. Literature. The student will actively engage in the reading process and read, understand, respond to, and appreciate a wide variety of fiction, poetic, and nonfiction texts.

BENCHMARK

The student will:

- (1) read from and listen to texts representing a variety of genres, such as poetry, folk tales, drama, fantasy, realistic fiction, informational, and biographical texts from America, as well as from other countries;
- (2) identify and describe main characters, setting, and sequences of story events;
- (3) respond to text and use details from stories to support interpretation and make personal connections;
- (4) retell familiar stories using a beginning, middle, and end;
- (5) read and listen to selections for personal enjoyment; and
- (6) understand the role of illustrations in conveying meaning in picture books.

Subp. 2. Writing. The student will write clearly and coherently to communicate effectively for a variety of audiences and purposes.

STANDARD

A. Types of writing. The student will compose various pieces of writing.

BENCHMARK

The student will:

- (1) write in a variety of modes to express meaning, including:
 - (a) narrative;
 - (b) informative; and
 - (c) poetic; and
- (2) use informal writing to record information or observations.

STANDARD

B. Elements of composition. The student will demonstrate emerging knowledge of a writing process with attention to organization, topic, and quality of ideas.

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BENCHMARK

The student will write simple sentences using a process and strategies to plan, compose, revise, and edit.

STANDARD

C. Spelling, grammar, and usage. The student will demonstrate emerging knowledge of punctuation, spelling, and capitalization.

BENCHMARK

The student will:

- (1) use a period after sentences, numerals, and initials;
- (2) capitalize the first letter of proper names, the pronoun *I*, and the first words of sentences;
- (3) use question marks and exclamation marks;
- (4) compose simple sentences;
- (5) use correct spelling for grade-appropriate high-frequency sight words;
- (6) spell three to four letter words correctly; and
- (7) spell grade-appropriate words correctly in final draft.

STANDARD

D. Research. The student will locate and use information in reference materials.

BENCHMARK

The student will:

- (1) use grade-level-appropriate reference material to obtain information; and
- (2) alphabetize by first letter.

STANDARD

E. Handwriting and word processing. The student will improve the student's handwriting.

BENCHMARK

The student will:

- (1) improve the formation of uppercase and lowercase letters of the alphabet and numbers; and
- (2) space words and sentences appropriately.

Subp. 3. Speaking, listening, and viewing. The student will speak clearly and effectively for a variety of purposes and audiences and actively listen to, view, and evaluate oral communication and media.

STANDARD

A. Speaking and listening. The student will communicate effectively through listening and speaking.

BENCHMARK

The student will:

- (1) participate in and follow agreed-upon rules for conversation and formal discussions;
- (2) follow two- or three-step oral directions;
- (3) attend to and understand the meaning of messages;
- (4) communicate needs, feelings, and ideas to peers and adults in complete sentences;
- (5) recite and respond to stories, poems, rhymes, and songs with expression;
- (6) use voice level appropriate for language situation; and
- (7) ask and respond to questions.

STANDARD

B. Viewing. The student will become familiar with the structure of printed material.

BENCHMARK

The student will:

- (1) follow print from left to right and top to bottom;
- (2) turn pages sequentially from front to back;
- (3) identify the cover and title page of a book; and
- (4) recognize common signs and logos.

3501.0515 GRADE 2 STANDARDS.

Subpart 1. Reading and literature. The student will read and understand grade-appropriate English language text.

STANDARD

A. Word recognition, analysis, and fluency. The student will understand and apply knowledge of the sounds of the English language (phonemic awareness), the sound-symbol relationship (phonics), and word recognition strategies to read grade-level materials with accuracy and fluency.

BENCHMARK

The student will:

(1) use word structure and phonics knowledge, such as consonants, blends, digraphs, and vowel combinations to decode words;

(2) identify individual word parts to decode and determine the meaning of compound and multisyllabic words;

(3) fluently read 200 high-frequency words;

(4) read aloud grade-appropriate text with accuracy, fluency, and expression; and

(5) notice when reading breaks down, reread and use phonetic and other strategies to self-correct.

STANDARD

B. Vocabulary expansion. The student will use a variety of strategies to expand reading, listening, and speaking vocabularies.

BENCHMARK

The student will:

(1) learn and use new words through explicit instruction and independent reading;

(2) use a growing range of descriptive words when speaking of people, places, things, actions, and events;

(3) use context and word structure to help determine a word's meaning;

(4) identify prefixes and suffixes;

(5) generate and use antonyms, synonyms, and multiple-meaning words to express meaning; and

(6) use a grade-appropriate dictionary or glossary to locate word meanings.

STANDARD

C. Comprehension. The student will actively engage in the reading process and use a variety of comprehension strategies to understand the meaning of texts that have been read.

BENCHMARK

The student will:

(1) read aloud grade-appropriate texts (that have not been previewed) with accuracy and comprehension;

(2) recall and use prior learning and preview text to prepare for reading;

(3) analyze text by using pictures, diagrams, titles, and headings;

(4) monitor comprehension, reread and use strategies to self-correct when necessary;

(5) restate the sequence of events or ideas in a text, and summarize;

(6) identify the topic, facts, and supporting details in nonfiction texts;

(7) demonstrate literal and inferential comprehension by asking and answering questions about narrative and informational texts;

(8) make predictions about text and verify outcomes;

(9) summarize text; and

(10) follow two-step written directions.

STANDARD

D. Literature. The student will actively engage in the reading process and read, understand, respond to, and appreciate a wide variety of fiction, poetic, and nonfiction texts.

BENCHMARK

The student will:

(1) read from and listen to texts representing a variety of genres, such as poetry, folk tales, drama, fantasy, realistic fiction, informational, and biography from America, as well as from other countries;

(2) identify and describe main characters, settings, and plot;

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- (3) use details from the story to support interpretation;
- (4) compare and contrast works by different authors in the same genre or regarding the same theme;
- (5) compare and contrast two works by the same author;
- (6) critically read and evaluate texts to determine the author's purpose; and
- (7) read selections for personal enjoyment.

Subp. 2. **Writing.** The student will write clearly and coherently to effectively communicate for a variety of audiences and purposes, demonstrating an emerging knowledge and application of skills.

STANDARD

A. Types of writing. The student will compose narrative and informational pieces of writing.

BENCHMARK

The student will:

- (1) write in a variety of modes to express meaning, including:
 - (a) narrative;
 - (b) informative; and
 - (c) functional; and
- (2) use informal writing skills, such as note taking, listing, and mapping, to record information or observations.

STANDARD

B. Elements of composition. The student will demonstrate increased emerging knowledge in a writing process, with attention to organization, focus, and quality of ideas.

BENCHMARK

The student will:

- (1) write sentences employing the composing processes of prewriting, writing, revising, editing, and final copy; and
- (2) use verbalization (discussions, interviews, or dictating) to prepare for writing.

STANDARD

C. Spelling, grammar, and usage. The student will apply standard English conventions when writing.

BENCHMARK

The student will:

- (1) identify and correctly use nouns, verbs, and pronouns;
- (2) identify and use descriptive words such as adjectives and adverbs;
- (3) write sentences with correct subject-verb agreement;
- (4) use correct end marks for sentences;
- (5) apply phonics knowledge and spelling rules to produce correctly spelled words;
- (6) use correct spelling for high-frequency sight words, regular plurals, and simple compound words; and
- (7) spell grade-appropriate words correctly in final draft.

STANDARD

D. Research. The student will locate and use information in reference materials.

BENCHMARK

The student will:

- (1) use grade-level appropriate reference material to obtain information;
- (2) alphabetize by first and second letter; and
- (3) use glossaries.

STANDARD

E. Handwriting and word processing. The student will begin to write legibly.

BENCHMARK

The student will:

- (1) use legible handwriting with improved formation of the uppercase and lowercase letters of the alphabet and numbers; and

(2) space words and sentences appropriately.

Subp. 3. **Speaking, listening, and viewing.** The student will speak clearly and effectively for a variety of purposes and audiences and actively listen to, view, and evaluate oral communication and media.

STANDARD

A. Speaking and listening. The student will demonstrate understanding and communicate effectively through listening and speaking.

BENCHMARK

The student will:

- (1) participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups;
- (2) comprehend text or information presented orally;
- (3) follow two- or three-step oral directions;
- (4) explain and clarify needs, feelings, and ideas to peers and adults in complete sentences;
- (5) report on a topic by sharing facts, opinions, ideas, prior knowledge, or personal experiences in a logical sequence;
- (6) recite and respond to stories, poems, rhymes, and songs with expression;
- (7) use voice level, phrasing, pace, and intonation appropriate for language situation; and
- (8) ask and respond to questions.

STANDARD

B. Viewing. The student will become familiar with the structure of printed material.

BENCHMARK

The student will:

- (1) identify the cover, title page, and glossary of a book; and
- (2) understand that different types of books, such as fiction, nonfiction, and reference materials, have different purposes.

3501.0520 GRADE 3 STANDARDS.

Subpart 1. **Word recognition, analysis, and fluency.** The student will read and understand grade-appropriate English language text.

STANDARD

A. Word recognition, analysis, and fluency. The student will apply word recognition strategies to decode unfamiliar multisyllabic words and will read grade-appropriate text with accuracy and fluency.

BENCHMARK

The student will:

- (1) read unfamiliar complex and multisyllabic words using advanced phonetic and structural analysis;
- (2) read aloud narrative and expository text with fluency, accuracy, and appropriate pacing, intonation, and expression; and
- (3) notice when reading breaks down, reread and use phonetic and other strategies to self-correct.

STANDARD

B. Vocabulary expansion. The student will use a variety of strategies to expand reading, listening, and speaking vocabularies.

BENCHMARK

The student will:

- (1) acquire, understand, and use new vocabulary through explicit instruction and independent reading;
- (2) identify and correctly use antonyms, synonyms, homonyms, and multiple-meaning words;
- (3) use context and word structure to determine the meaning of unfamiliar words;
- (4) use knowledge of prefixes and suffixes to determine the meaning of unknown words; and
- (5) use dictionaries and glossaries to understand the meaning of new words.

STANDARD

C. Comprehension. The student will understand the meaning of texts using a variety of comprehension strategies and will demonstrate literal, interpretive, and evaluative comprehension.

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BENCHMARK

The student will:

- (1) read aloud grade-appropriate text (that has not been previewed) with accuracy and comprehension;
- (2) recall and use prior learning and preview text, using title, headings, and illustrations, to prepare for reading;
- (3) generate and answer literal, inferential, interpretive, and evaluative questions to demonstrate understanding about

what is read;

- (4) retell, restate, or summarize information orally, in writing, and through graphic organizers;
- (5) infer and identify main idea and determine relevant details in nonfiction text;
- (6) monitor comprehension and use strategies to self-correct when needed; and
- (7) follow three-step written directions.

STANDARD

D. Literature. The student will actively engage in the reading process and read, understand, respond to, analyze, interpret, evaluate, and appreciate a wide variety of fiction, poetic, and nonfiction texts.

BENCHMARK

The student will:

- (1) read from and listen to American literature, as well as literature from other countries;
- (2) identify, describe, and respond to literary elements of characterization, plot, setting, and theme;
- (3) identify and describe patterns of sounds such as rhyme and rhythm in poetry;
- (4) compare and contrast similar works by different authors in the same genre or the same theme;
- (5) compare and contrast two works by the same author;
- (6) identify and determine the meanings of similes and metaphors;
- (7) critically read and examine text to determine author's purpose;
- (8) respond to literature using ideas and details from the text to support reactions and make literary connections; and
- (9) read from and respond to a variety of fiction, poetic, and nonfiction texts of increasing complexity for personal

enjoyment.

Subp. 2. Writing. The student will write clearly and coherently to communicate effectively for a variety of audiences and purposes.

STANDARD

A. Types of writing. The student will compose various pieces of writing.

BENCHMARK

The student will write in a variety of modes to express meaning, including:

- (1) descriptive;
- (2) narrative;
- (3) informative;
- (4) friendly letter; and
- (5) poetic.

STANDARD

B. Elements of composition. The student will engage in a writing process, with attention to organization, focus, and quality of ideas.

BENCHMARK

The student will:

- (1) write a paragraph that includes:
 - (a) an indented or block style of paragraph;
 - (b) a topic sentence;
 - (c) three to five supporting sentences; and
 - (d) a concluding sentence;
- (2) use composing processes, including:
 - (a) prewriting - planning strategies such as brainstorming, journaling, sketching, listing, outlining, and deter-

mining audience, purpose, and focus;

(b) drafting - organizing, supporting, and putting ideas into sentences and paragraphs;

(c) revising - improving the quality of content, organization, sentence structure, and word choice;

(d) editing - correcting errors in spelling and grammar; and

(e) publishing - producing a document and sharing the writing with the audience; and

(3) use verbalization, such as discussions, interviews, and brainstorming, to prepare for writing.

STANDARD

C. Spelling, grammar, and usage. The student will apply standard English conventions when writing.

BENCHMARK

The student will:

(1) compose complete sentences when writing;

(2) recognize and correct spelling errors when writing;

(3) spell correctly one-syllable and two-syllable words that have blends, contractions, and compounds;

(4) spell common homophones correctly;

(5) apply grammar conventions correctly in writing, including:

(a) nouns;

(b) verbs;

(c) adjectives; and

(d) pronouns; and

(6) apply punctuation conventions correctly in writing, including:

(a) periods, question marks, exclamation points;

(b) capitalization of proper nouns;

(c) abbreviations;

(d) sentence beginnings; and

(e) commas in a series.

STANDARD

D. Research. The student will locate and use information in reference materials.

BENCHMARK

The student will:

(1) use grade-level appropriate reference materials to obtain information from dictionaries, glossaries, encyclopedias, and the Internet; and

(2) arrange words in alphabetical order.

STANDARD

E. Handwriting and word processing. The student will write legibly.

BENCHMARK

The student will:

(1) write legibly, allowing margins and correct spacing between letters in a word and words in a sentence;

(2) begin to make the transition to cursive; and

(3) begin acquiring keyboarding skills.

Subp. 3. Speaking, listening, and viewing.

STANDARD

A. Speaking and listening. The student will demonstrate understanding and communicate effectively through listening and speaking.

BENCHMARK

The student will:

(1) participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups;

(2) demonstrate active listening and comprehension;

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- (3) follow multistep oral directions;
- (4) give oral presentations to different audiences for different purposes;
- (5) organize and express ideas sequentially or according to major points; and
- (6) perform expressive oral readings of prose, poetry, or drama.

STANDARD

B. Media literacy. The student will critically analyze information found in electronic and print media, and will use a variety of these sources to learn about a topic and represent ideas.

BENCHMARK

The student will:

- (1) read print and view pictures and video images and identify differences in how information is presented in print and nonprint materials; and
- (2) use print, pictures, audio, and video to express ideas and knowledge gleaned from the sources.

3501.0525 GRADE 4 STANDARDS.

Subpart 1. Reading and literature. The student will read and understand grade-appropriate English language text.

STANDARD

A. Word recognition, analysis, and fluency. The student will decode unfamiliar words using phonetic and structural analysis and will read with fluency and expression.

BENCHMARK

The student will:

- (1) read unfamiliar complex and multisyllabic words using advanced phonetic and structural analysis in grade-appropriate text; and
- (2) read aloud narrative and expository text with fluency, accuracy, and appropriate pacing, intonation, and expression.

STANDARD

B. Vocabulary expansion. The student will use a variety of strategies to expand reading, listening, and speaking vocabularies.

BENCHMARK

The student will:

- (1) acquire, understand, and use new vocabulary through explicit instruction and independent reading;
- (2) identify and understand root words, derivations, antonyms, synonyms, idioms, homonyms, and multiple-meaning words to determine word meanings and to comprehend texts;
- (3) use dictionaries or glossaries to find the meaning of new words;
- (4) use context and word structure to determine word meanings; and
- (5) use knowledge of prefixes and suffixes to determine the meaning of unknown words.

STANDARD

C. Comprehension. The student will understand the meaning of texts, using a variety of strategies, and will demonstrate literal, interpretive, inferential, and evaluative comprehension.

BENCHMARK

The student will:

- (1) read aloud grade-appropriate text (that has not been previewed) with accuracy and comprehension;
- (2) recall and use prior learning and preview text to prepare for reading;
- (3) generate and answer literal, inferential, interpretive, and evaluative questions about what is read to demonstrate understanding;
- (4) summarize and paraphrase what is read;
- (5) infer and identify main idea and determine relevant details in nonfiction text;
- (6) distinguish fact from opinion, determine cause and effect, and draw conclusions;
- (7) demonstrate relationships between ideas or events in the texts using graphic organizers;
- (8) monitor comprehension, notice when reading breaks down, and use strategies to self-correct;
- (9) follow multiple-step written instructions; and
- (10) compare and contrast information on the same topic from two sources.

STANDARD

D. Literature. The student will actively engage in the reading process and read, understand, respond to, analyze, interpret, evaluate, and appreciate a wide variety of fiction, poetic, and nonfiction texts.

BENCHMARK

The student will:

(1) read and respond to a variety of high quality, traditional, classical, and contemporary literary works specific to America, as well as significant works from other countries;

(2) identify, respond to, and compare and contrast the literary elements of characterization, plot, setting, and theme;

(3) identify patterns of sounds such as rhyme and rhythm in poetry;

(4) compare and evaluate similar works by different authors in the same genre or theme;

(5) compare and evaluate two works by the same author;

(6) identify first-person and third-person point of view;

(7) identify and determine the meanings of similes and metaphors;

(8) critically read and evaluate text to determine author's purpose and point of view;

(9) respond to literature using ideas and details from the text to support reactions and make literary connections; and

(10) read from and respond to a variety of fiction, poetic, and nonfiction texts of increasing complexity for personal enjoyment.

Subp. 2. **Writing.** The student will write clearly and coherently to effectively communicate for a variety of audiences and purposes.

STANDARD

A. Types of writing. The student will compose various pieces of writing.

BENCHMARK

The student will write in a variety of styles to express meaning, including:

(1) descriptive;

(2) narrative;

(3) informative;

(4) friendly letter;

(5) poetic;

(6) persuasive; and

(7) thank you note.

STANDARD

B. Elements of composition. The student will engage in writing, with attention to organization, focus, and quality of ideas.

BENCHMARK

The student will:

(1) write topic sentences;

(2) create multiple paragraph compositions that include:

(a) correct paragraph indentation style;

(b) an introductory paragraph formulating a thesis;

(c) supporting evidence that upholds an overall thesis; and

(d) a concluding paragraph as a summary;

(3) use composing processes, including:

(a) prewriting - planning strategies such as brainstorming, journaling, sketching, listing, outlining, and determining audience, purpose, and focus;

(b) drafting - organizing, supporting, and putting ideas into sentences and paragraphs;

(c) revising - improving the quality of content, organization, sentence structure, and word choice;

(d) editing - correcting errors in spelling and grammar; and

(e) publishing - producing a document and sharing the writing with the audience;

(4) create informative reports, including gathering material, formulating ideas based on gathered material, organizing

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information, and editing for logical progression;

(5) use verbalization, such as discussions, interviews, and brainstorming, to prepare for writing; and

(6) consider audience in composing texts.

STANDARD

C. Spelling, grammar, and usage. The student will apply standard English conventions when writing.

BENCHMARK

The student will:

(1) compose complete sentences when writing;

(2) identify and correct spelling of frequently used words and common homophones;

(3) spell roots, suffixes, prefixes, and syllable constructions correctly;

(4) apply grammar conventions correctly in writing, including:

(a) verb tense;

(b) adverbs;

(c) prepositions;

(d) subject and verb agreement; and

(e) possessive pronouns; and

(5) apply punctuation conventions correctly in writing, including:

(a) apostrophes;

(b) capitalization of proper nouns;

(c) abbreviations;

(d) sentence beginnings;

(e) commas in a series; and

(f) quotation marks.

STANDARD

D. Research. The student will locate and use information in reference materials.

BENCHMARK

The student will locate information in various reference materials including dictionaries, on-line dictionaries, glossaries, encyclopedias, and the Internet.

STANDARD

E. Handwriting and word processing. The student will write legibly and use a keyboard.

BENCHMARK

The student will:

(1) write legibly in both print and cursive; and

(2) apply basic keyboarding skills.

Subp. 3. Speaking, listening, and viewing. The student will speak clearly and effectively for a variety of purposes and audiences and actively listen to, view, and evaluate oral communication and media.

STANDARD

A. Speaking and listening. The student will demonstrate understanding and communicate effectively through listening and speaking.

BENCHMARK

The student will:

(1) participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups;

(2) demonstrate active listening and comprehension;

(3) give oral presentations to different audiences for different purposes;

(4) organize and summarize ideas, using evidence to support opinions or main ideas; and

(5) perform expressive oral readings of prose, poetry, or drama.

STANDARD

B. Media literacy. The student will critically analyze information found in electronic and print media, and will use a variety of these sources to learn about a topic and represent ideas.

BENCHMARK

The student will:

(1) read print, view pictures and video images, and listen to audio files and identify distinctions in how information is presented in print and nonprint materials;

(2) begin to make informed judgments about messages promoted in the media, such as those in film, television, radio, and newspapers; and

(3) use print, pictures, audio, and video to express ideas and knowledge gleaned from these sources.

3501.0530 GRADE 5 STANDARDS.

Subpart 1. Reading and literature. The student will read and understand grade-appropriate English language text.

STANDARD

A. Word recognition, analysis, and fluency. The student will decode unfamiliar words using phonetic and structural analysis and will read with fluency and expression.

BENCHMARK

The student will:

(1) read unfamiliar, complex, and multisyllabic words using advanced phonetic and structural analysis; and

(2) read aloud narrative and expository text with fluency, accuracy, and appropriate pacing, intonation, and expression.

STANDARD

B. Vocabulary expansion. The student will use a variety of strategies to expand reading, listening, and speaking vocabularies.

BENCHMARK

The student will:

(1) acquire, understand, and use new vocabulary through explicit instruction as well as independent reading;

(2) use knowledge of root words, derivations, antonyms, synonyms, idioms, homonyms, and multiple-meaning words to determine word meanings and to understand texts;

(3) use word reference materials, such as dictionaries and thesauruses, to understand and express word meaning; and

(4) analyze word structure and use context clues in order to understand new words.

STANDARD

C. Comprehension. The student will understand the meaning of texts, using a variety of strategies, and will demonstrate literal, interpretive, inferential, and evaluative comprehension.

BENCHMARK

The student will:

(1) read aloud grade-appropriate text (that has not been previewed) with accuracy and comprehension;

(2) recall and use prior learning and preview text to prepare for reading;

(3) summarize and paraphrase key ideas from text;

(4) identify main idea and supporting details in fiction text;

(5) infer main ideas and determine relevant details in nonfiction texts;

(6) generate graphic organizers to enhance comprehension of texts and to describe text structure and organization;

(7) generate and answer literal, inferential, interpretive, and evaluative questions to demonstrate understanding about what is read;

(8) distinguish fact from opinion and provide evidence to support conclusions;

(9) determine cause and effect and draw conclusions;

(10) compare and contrast information on the same topic from multiple sources;

(11) critically read and evaluate text to identify author's point of view and purpose;

(12) notice when comprehension breaks down, reread and use strategies to self-correct; and

(13) follow multiple-step written directions.

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STANDARD

D. Literature. The student will actively engage in the reading process and read, understand, respond to, analyze, interpret, evaluate, and appreciate a wide variety of fiction, poetic, and nonfiction texts.

BENCHMARK

The student will:

(1) read a variety of high quality, traditional, classical, and contemporary literary works specific to America, as well as significant works from other countries;

(2) identify and analyze literary elements and devices in works of fiction including characterization, plot, tone, and theme and the ways they convey meaning;

(3) evaluate nonfiction texts by analyzing structure, concept development, design, and style;

(4) interpret literature by answering questions that ask for analysis and evaluation;

(5) distinguish among various literary genres and subgenres;

(6) distinguish between third-person omniscient and first-person point of view;

(7) identify and determine the meanings of similes and metaphors;

(8) respond to literature using ideas and details from the text to support reactions and make literary connections; and

(9) read from and respond to a variety of fiction, poetic, and nonfiction texts of increasing complexity for personal enjoyment.

Subp. 2. Writing. The student will write clearly and coherently to effectively communicate for a variety of audiences and purposes.

STANDARD

A. Types of writing. The student will compose various pieces of writing.

BENCHMARK

The student will write in a variety of modes to express meaning, including:

(1) descriptive;

(2) narrative;

(3) informative;

(4) formal letter;

(5) poetry;

(6) persuasive;

(7) thank you notes; and

(8) reports.

STANDARD

B. Elements of composition. The student will engage in a writing process, with attention to organization, focus, quality of ideas, audience, and a purpose.

BENCHMARK

The student will:

(1) write topic sentences;

(2) create multiple paragraph compositions that include:

(a) correct paragraph indentation style;

(b) an introductory paragraph formulating a thesis or opinion;

(c) supporting evidence in paragraph form that upholds the overall thesis or opinion; and

(d) a concluding paragraph as a summary;

(3) use composing processes, including:

(a) prewriting - planning strategies such as brainstorming, journaling, sketching, listing, outlining, and determining audience, purpose, and focus;

(b) drafting - organizing, supporting, and putting ideas into sentences and paragraphs;

(c) revising - improving the quality of content, organization, sentence structure, and word choice;

(d) editing - correcting errors in spelling and grammar; and

(e) publishing - producing a document and sharing the writing with the audience;

(4) create informative reports, including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression; and

(5) consider the intended audience when composing text.

STANDARD

C. Spelling, grammar, and usage. The student will apply standard English conventions when writing.

BENCHMARK

The student will:

(1) compose complete sentences when writing;

(2) edit written documents for correct spelling;

(3) spell roots, suffixes, prefixes, contractions, and syllable constructions correctly;

(4) apply grammar conventions correctly in writing, including:

(a) verb tense;

(b) prepositional phrases;

(c) adverbs;

(d) subject and verb agreement with simple subjects; and

(e) possessive pronouns and plural possessives; and

(5) apply punctuation conventions correctly in writing, including:

(a) apostrophes;

(b) capitalization of proper nouns;

(c) abbreviations;

(d) sentence beginnings;

(e) commas; and

(f) quotation marks.

STANDARD

D. Research. The student will locate and use information in reference materials.

BENCHMARK

The student will:

(1) locate and keep notes on the information in various reference materials including print and on-line dictionaries, glossaries, encyclopedias, CD reference materials and the Internet;

(2) formulate research questions and collect relevant information or perform observations that address such questions; and

(3) define plagiarism and avoid its use.

STANDARD

E. Handwriting and word processing. The student will write legibly and demonstrate effective keyboarding skills.

BENCHMARK

The student will:

(1) write legibly in cursive; and

(2) apply keyboarding skills.

Subp. 3. Speaking, listening, and viewing. The student will speak clearly and effectively for a variety of purposes and audiences and actively listen to, view, and evaluate oral communication and media.

STANDARD

A. Speaking and listening. The student will demonstrate understanding and communicate effectively through listening and speaking.

BENCHMARK

The student will:

(1) participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups;

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- (2) demonstrate active listening and comprehension;
- (3) distinguish between speaker's opinion and verifiable facts;
- (4) give oral presentations to various audiences for different purposes;
- (5) restate or summarize and organize ideas sequentially using evidence to support opinions and main ideas; and
- (6) perform expressive oral readings of prose, poetry, or drama.

STANDARD

B. Media literacy. The student will critically analyze information found in electronic and print media, and will use a variety of these sources to learn about a topic and represent ideas.

BENCHMARK

The student will:

- (1) identify distinctions in how information is presented in print and nonprint materials;
- (2) make informed judgments about messages promoted in the media, such as those in film, television, radio, and newspapers; and
- (3) evaluate the accuracy and credibility of information found on Internet sites.

3501.0535 GRADE 6 STANDARDS.

Subpart 1. Reading and literature. Students will read and understand grade-appropriate English language text.

STANDARD

A. Word recognition, analysis, and fluency. The student will read with accuracy and fluency.

BENCHMARK

The student will:

- (1) read unfamiliar complex and multisyllabic words using advanced phonetic analysis and structural analysis;
- (2) read narrative and expository text with fluency, accuracy, and appropriate pacing; and
- (3) apply correct word pronunciation and inflection.

STANDARD

B. Vocabulary expansion. The student will use a variety of strategies to expand reading, listening, and speaking vocabularies.

BENCHMARK

The student will:

- (1) acquire, understand, and use new vocabulary through explicit vocabulary instruction and independent reading;
- (2) analyze word structure and use cueing systems to understand new words;
- (3) determine pronunciations, meanings, and alternate word choices through the use of dictionaries, thesauruses, and electronic tools;
- (4) determine the meaning of unknown words using knowledge of common Greek and Latin roots, suffixes, and prefixes; and
- (5) recognize and interpret similes, metaphors, and words with multiple meanings.

STANDARD

C. Comprehension. The student will understand the meaning of informational, expository, or persuasive texts, using a variety of strategies, and will demonstrate literal, interpretive, inferential, and evaluative comprehension.

BENCHMARK

The student will:

- (1) summarize and paraphrase what is read;
- (2) recall and use prior learning and preview text to prepare for reading;
- (3) generate and answer literal, inferential, interpretive, and evaluative questions to demonstrate understanding about what is read;
- (4) apply a range of monitoring strategies and self-correction methods;
- (5) identify the main idea and supporting details;
- (6) retell significant sequences of events or ideas;
- (7) distinguish fact from opinion and give examples from text;

(8) identify the author's purpose (stated or implied), audience, and message;

(9) create outlines, logical notes, and summaries across content areas;

(10) use texts' structural features, such as graphics, illustrations, references, notes, introductions, boldface type, and subheadings across a range of subject areas to enhance comprehension;

(11) utilize texts' organizational structures, such as narrative, expository, chronological, compare, and contrast, and generate graphic organizers to organize, recall, and summarize content;

(12) compare and contrast information from different sources on the same topic; and

(13) critically read and evaluate to determine the author's purpose, point of view, audience, and message.

STANDARD

D. Literature. The student will actively engage in the reading process and read, understand, respond to, analyze, interpret, evaluate, and appreciate a wide variety of fiction, poetic, and nonfiction texts.

BENCHMARK

The student will:

(1) read a variety of high quality, traditional, classical, and contemporary literary works specific to America, as well as significant works from other countries;

(2) identify and describe the characteristics of various genres;

(3) identify and describe the relationships among elements of fiction including setting, character, plot, conflict/resolution, theme, and tone;

(4) analyze characters through identifying thoughts, words, actions, and narrator's description;

(5) describe how figurative language, such as simile and metaphor, and literary devices contribute to the meaning of text;

(6) relate a given literary work to historical events, such as place, time, and custom;

(7) describe how meaning is conveyed in poetry the author's stylistic choices;

(8) respond to literature using ideas and details from the text to support reactions and make literary connections; and

(9) read from and respond to a variety of fiction, poetic, and nonfiction texts of increasing complexity for personal enjoyment.

Subp. 2. Writing. The student will write clearly and coherently to effectively communicate for a variety of audiences and purposes.

STANDARD

A. Types of writing. The student will create informative, expressive, and persuasive writing.

BENCHMARK

The student will write frequently in a variety of forms, including but not limited to the following: poems, stories, plays, essays, journals, letters, directions, editorials, business communications, and reports.

STANDARD

B. Elements of composition. The student will engage in a writing process, with attention to organization, focus, quality of ideas, and a purpose.

BENCHMARK

The student will:

(1) create multiple paragraph compositions that state, maintain, and use details in a logical order to support a main idea;

(2) create narratives that develop settings, people/characters, dialogue, and conflicts using descriptive, concrete language to engage audiences;

(3) create informative reports, including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression;

(4) use composing processes to develop writing, including:

(a) prewriting - planning strategies such as brainstorming, journaling, sketching, listing, outlining, and determining audience, purpose, and focus;

(b) drafting - organizing, supporting, and putting ideas into sentences and paragraphs;

(c) revising - improving the quality of content, organization, sentence structure, and word choice;

(d) editing - correcting errors in spelling and grammar; and

(e) publishing - producing a document and sharing the writing with the audience; and

(5) consider the intended audience when composing text.

Official Notices

STANDARD

C. Spelling, grammar, and usage. The student will apply standard English conventions when writing.

BENCHMARK

The student will:

- (1) compose complete sentences when writing;
- (2) edit writing for correct spelling and sentence clarity;
- (3) apply grammar conventions correctly in writing, including:
 - (a) consistent verb tense;
 - (b) subject and verb agreement with simple and compound subjects;
 - (c) nominative case;
 - (d) objective and possessive pronouns; and
 - (e) subject and verb agreement when interrupted by a phrase; and
- (4) apply punctuation conventions correctly in writing, including:
 - (a) apostrophes;
 - (b) semicolon;
 - (c) capitalization of proper nouns;
 - (d) abbreviations;
 - (e) sentence beginnings and first words in quotes;
 - (f) commas after opening words, in compound sentences, and after subordinating conjunctions; and
 - (g) quotation marks to identify dialogue.

STANDARD

D. Research. The student will locate and use information in reference materials.

BENCHMARK

The student will:

- (1) gather and synthesize information from a variety of sources, including electronic and print;
- (2) clarify an understanding of text by creating outlines, logical notes, and summaries across content areas;
- (3) cite sources for both quoted and paraphrased information in a bibliography when writing a research report; and
- (4) define plagiarism and avoid its use.

STANDARD

E. Handwriting and word processing. The student will write legibly and demonstrate effective keyboarding skills.

BENCHMARK

The student will:

- (1) write legibly in cursive; and
- (2) format handwritten and word-processed documents correctly.

Subp. 3. **Speaking, listening, and viewing.** The student will speak clearly and effectively for a variety of purposes and audiences and actively listen to, view, and evaluate oral communication and media.

STANDARD

A. Speaking and listening. The student will demonstrate understanding and communicate effectively through listening and speaking.

BENCHMARK

The student will:

- (1) participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups;
- (2) know and apply listening rules and expectations for formal settings and demonstrate comprehension;
- (3) actively listen and comprehend messages;
- (4) apply assessment criteria to self-evaluate oral presentations;
- (5) distinguish between a speaker's opinion and verifiable facts;
- (6) orally communicate information, opinions, and ideas effectively to different audiences for a variety of purposes; and

(7) perform expressive oral readings of prose, poetry, or drama.

STANDARD

B. Media literacy. The student will critically analyze information found in electronic and print media, and will use a variety of these sources to learn about a topic and represent ideas.

BENCHMARK

The student will:

(1) identify distinctions in how information is presented in print and nonprint materials;

(2) evaluate the accuracy and credibility of information found on Internet sites; and

(3) make informed evaluations about television, radio, film productions, newspapers, and magazines with regard to quality of production, accuracy of information, bias, purpose, message, and audience.

3501.0540 GRADE 7 STANDARDS.

Subpart 1. **Reading and literature.** The student will read and understand grade-appropriate English language text.

STANDARD

A. Word recognition, analysis, and fluency. The student will read with accuracy and fluency.

BENCHMARK

The student will:

(1) read unfamiliar complex and multisyllabic words using cueing systems, advanced phonetic analysis, and structural analysis;

(2) read narrative and expository text with fluency, accuracy, and comprehension at an appropriate silent reading rate; and

(3) apply correct word pronunciation and inflection.

STANDARD

B. Vocabulary expansion. The student will use a variety of strategies to expand reading, listening, and speaking vocabularies.

BENCHMARK

The student will:

(1) acquire, understand, and use new vocabulary through explicit vocabulary instruction and independent reading;

(2) analyze word structure and use context clues to understand new words;

(3) recognize and interpret words with multiple meanings;

(4) recognize the influences of other languages on the English language;

(5) apply knowledge of Greek and Latin roots, prefixes, and suffixes to understand content-area vocabulary and assist pronunciation;

(6) identify and explain analogies, similes, and metaphors; and

(7) determine pronunciation, meanings, and alternate word choices through the use of dictionaries, thesauruses, and electronic tools.

STANDARD

C. Comprehension. The student will understand the meaning of texts, using a variety of strategies, and will demonstrate literal, interpretive, inferential, and evaluative comprehension.

BENCHMARK

The student will:

(1) comprehend, interpret, and evaluate text by asking and answering questions;

(2) recall and use prior learning and preview text to prepare for reading;

(3) use knowledge of narrative and expository text structures and subject specific texts to summarize content;

(4) make inferences and draw conclusions based on explicit and implied information from texts;

(5) create outlines, logical notes, and summaries across content areas;

(6) use texts' structural organizers, such as graphics, illustrations, references, notes, introductions, boldface type, and subheadings to aid comprehension;

(7) distinguish statements of fact from opinion and give examples from text;

(8) critically read and evaluate to determine the author's purpose, point of view, audience, and message;

(9) follow written directions in technical reading;

Official Notices

- (10) scan a passage to determine relevant information and skim the text to locate specific information; and
- (11) identify devices used in persuasive text.

STANDARD

D. Literature. The student will actively engage in the reading process and read, understand, respond to, analyze, interpret, evaluate, and appreciate a wide variety of fiction, poetic, and nonfiction texts.

BENCHMARK

The student will:

- (1) read a variety of high-quality, traditional, classical, and contemporary literary works specific to America, as well as significant works from other countries;
- (2) identify and analyze various genres and subgenres as forms with distinct characteristics and purposes;
- (3) identify and analyze the relationships among elements of fiction including setting, character, plot, conflict/resolution, theme, and tone;
- (4) identify and analyze the effect of characters' traits on the plot and resolution of the conflict;
- (5) analyze how figurative language and literary devices contribute to the meaning of a text;
- (6) identify and discuss the effect of the speaker and recognize the difference between first and third person point of view;
- (7) relate a given literary work to historical events, such as place, time, and custom;
- (8) explain how form and stylistic devices convey the meaning of a poem;
- (9) identify and understand recurring themes across literary works, citing evidence from the texts;
- (10) respond to literature using ideas and details from the text to support reactions and make literary connections; and
- (11) read from and respond to a variety of fiction, poetic, and nonfiction texts of increasing complexity for personal enjoyment.

Subp. 2. **Writing.** The student will write clearly and coherently for a variety of audiences and purposes.

STANDARD

A. Types of writing. The student will create informative, expressive, and persuasive writing.

BENCHMARK

The student will write frequently in a variety of forms, including, but not limited to, the following: poetry, stories, essays, editorials, letters, directions, and research reports.

STANDARD

B. Elements of composition. The student will engage in a writing process, with attention to context, organization, focus, quality of ideas, and a purpose.

BENCHMARK

The student will:

- (1) create multiple paragraph compositions that state, maintain, and use details in a logical order to support a main idea;
- (2) create narratives that develop settings, people/characters, dialogue, and conflicts using descriptive, concrete language to engage audiences;
- (3) create informative reports, including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression;
- (4) employ composing processes to develop writing, including:
 - (a) prewriting - planning strategies such as brainstorming, journaling, sketching, listing, outlining, and determining audience, purpose, and focus;
 - (b) drafting - organizing, supporting, and putting ideas into sentences and paragraphs;
 - (c) revising - improving the quality of content, organization, sentence structure, and word choice;
 - (d) editing - correcting errors in spelling and grammar; and
 - (e) publishing - producing a document and sharing the writing with the audience; and
- (5) consider the intended audience when composing text.

STANDARD

C. Spelling, grammar, and usage. The student will apply standard English conventions when writing.

BENCHMARK

The student will:

- (1) compose complete sentences when writing;
- (2) edit writing for correct spelling and sentence clarity;
- (3) apply grammar conventions correctly in writing, including:
 - (a) consistent verb tense;
 - (b) subject and verb agreement with simple and compound subjects;
 - (c) nominative, reflexive, objective, and possessive pronouns, pronoun/antecedent agreement; and
 - (d) subject and verb agreement when interrupted by a phrase; and
- (4) apply punctuation conventions correctly in writing, including:
 - (a) apostrophes;
 - (b) semicolon;
 - (c) capitalization of proper nouns;
 - (d) abbreviations;
 - (e) sentence beginnings and first words in quotes;
 - (f) commas in compound sentences, and after subordinating conjunctions, noun of address, and nonessential clauses; and
 - (g) quotation marks to identify dialogue.

STANDARD

D. Research. The student will locate and use information in reference materials.

BENCHMARK

The student will:

- (1) formulate questions and collect and assess relevant information to address these questions;
- (2) cite sources for quoted and paraphrased information in a bibliography when writing a research report;
- (3) gather and organize information from a variety of sources, including electronic and print; and
- (4) define plagiarism, its consequences, and avoid its use.

STANDARD

E. Handwriting and word processing. The student will write legibly and demonstrate effective keyboarding skills.

BENCHMARK

The student will:

- (1) write legibly using cursive; and
- (2) format word-processed documents to present information in an organized, readable format, integrating graphics, illustrations, and bulleting as needed.

Subp. 3. Speaking, listening, and viewing. The student will speak clearly and effectively for a variety of purposes and audiences and actively listen to, view, and evaluate oral communication and media.

STANDARD

A. Speaking and listening. The student will demonstrate understanding and communicate effectively through listening and speaking.

BENCHMARK

The student will:

- (1) participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups;
- (2) know and apply listening rules for formal settings;
- (3) apply assessment criteria to self-evaluate oral presentations;
- (4) distinguish between speaker's opinion and verifiable facts and analyze the credibility of the presentation;
- (5) follow a speaker's presentation and represent it in notes;
- (6) orally communicate information, opinions, and ideas effectively to different audiences for a variety of purposes;
- (7) adjust delivery and language in oral presentations for the intended audiences and purposes; and

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(8) perform expressive oral readings of prose, poetry, or drama.

STANDARD

B. Media literacy. The student will critically analyze information found in electronic and print media, and will use a variety of these sources to learn about a topic and represent ideas.

BENCHMARK

The student will:

- (1) identify distinctions in how information is presented in print and nonprint materials;
- (2) evaluate the accuracy and credibility of information found on Internet sites;
- (3) make informed evaluations about television, radio, film productions, newspapers, and magazines with regard to quality of production, accuracy of information, bias, purpose, message, and audience; and
- (4) critically analyze the messages and points of view employed in different media, including advertising, news programs, Web sites, and documentaries.

3501.0545 GRADE 8 STANDARDS.

Subpart 1. Reading and literature. The student will read and understand grade-appropriate English language text.

STANDARD

A. Word recognition, analysis, and fluency. Standards under this heading may be locally determined and based on the individual needs of the student.

STANDARD

B. Vocabulary expansion. The student will use a variety of strategies to expand reading, listening, and speaking vocabularies.

BENCHMARK

The student will:

- (1) acquire, understand, and use new vocabulary through explicit and indirect vocabulary instruction and independent reading;
- (2) determine the meaning of unknown words by using a dictionary or context clues;
- (3) recognize and interpret words with multiple meanings;
- (4) describe the influences of other languages on the English language;
- (5) apply knowledge of Greek and Latin roots, prefixes, and suffixes to understand content-area vocabulary;
- (6) determine word meanings by using definition, restatement, example, comparison, or contrast;
- (7) identify and explain analogies, similes, and metaphors; and
- (8) apply correct word pronunciation and inflection.

STANDARD

C. Comprehension. The student will understand the meaning of texts using a variety of strategies and will demonstrate literal, interpretive, inferential, and evaluative comprehension.

BENCHMARK

The student will:

- (1) summarize and paraphrase main idea and supporting details;
- (2) recall and use prior learning and preview text to prepare for reading;
- (3) comprehend, interpret, and evaluate information in a variety of texts using a combination of strategies before, during, and after reading;
- (4) make inferences and draw conclusions based on explicit and implied information from texts;
- (5) trace the development of an author's argument, point of view, or perspective;
- (6) evaluate the adequacy, accuracy, and appropriateness of the author's evidence in a persuasive text;
- (7) use knowledge of narrative and expository text structures in a variety of content areas to summarize information;
- (8) create outlines, logical notes, and summaries of text in various content areas;
- (9) use texts' structural organizers, such as graphics, illustrations, references, notes, introductions, boldface type, and subheadings, to aid comprehension;
- (10) monitor comprehension and use strategies to clarify understanding of selections;
- (11) distinguish fact from opinion in two selections on the same topic and give evidence;

- (12) follow written directions in technical reading;
- (13) identify and utilize a variety of sources to compare and contrast information; and
- (14) critically read and evaluate to determine the author's purpose, point of view, audience, and message.

STANDARD

D. Literature. The student will actively engage in the reading process and read, understand, respond to, analyze, interpret, evaluate, and appreciate a wide variety of fiction, poetic, and nonfiction texts.

BENCHMARK

The student will:

- (1) read a variety of high quality, traditional, classical, and contemporary literary works specific to America, as well as significant works from other countries;
- (2) analyze and evaluate the relationships among elements of fiction;
- (3) analyze a character's traits, emotions, or motivation and give supporting evidence from the text;
- (4) analyze and evaluate how figurative language and literary devices contribute to the meaning of a text;
- (5) contrast points of view, such as first and third person, limited and omniscient, subjecting and objective, in narrative texts and explain how they affect the overall theme of the works;
- (6) relate a given literary work to historical events, such as place, time, and custom;
- (7) respond to and analyze the effects of sound, form, figurative language, and graphics in order to uncover meaning in poetry;
- (8) identify and understand recurring themes across literary works, citing evidence from texts;
- (9) identify and analyze structural elements particular to dramatic literature;
- (10) compare and evaluate recurring themes across literary works and historic eras;
- (11) respond to literature using ideas and details from the text to support reactions and make literary connections; and
- (12) read from and respond to a variety of fiction, poetic, and nonfiction texts of increasing complexity for personal enjoyment.

Subp. 2. Writing. The student will write clearly and coherently to effectively communicate for a variety of audiences and purposes.

STANDARD

A. Types of writing. The student will create informative, expressive, and persuasive writing.

BENCHMARK

The student will write frequently in a variety of forms, including but not limited to the following: poetry, stories, essays, editorials, letters, directions, and research reports.

STANDARD

B. Elements of composition. The student will engage in a writing process with attention to context, organization, focus, quality of ideas, and a purpose.

BENCHMARK

The student will:

- (1) create multiple paragraph compositions that state, maintain, and use details in a logical order to support a main idea;
- (2) create narratives that develop settings, people/characters, dialogue, and conflicts using descriptive, concrete language to engage audiences;
- (3) create informative reports, including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression;
- (4) create reports that employ word processing and formatting, using diagrams or definitions of terms to inform audiences;
- (5) formulate a position or opinion and provide supporting arguments and evidence for that position;
- (6) use composing processes to develop writing, including:
 - (a) prewriting - planning strategies, ideas, and focus;
 - (b) drafting - including strategies for avoiding writer's block;
 - (c) revising - to improve quality of content, organization, sentence structure, voice, tone, and word choice;
 - (d) editing - to correct errors in writing; and
 - (e) publishing; and

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(7) consider the intended audience when composing text.

STANDARD

C. Spelling, grammar, and usage. The student will apply standard English conventions when writing.

BENCHMARK

The student will:

- (1) compose complete sentences when writing;
- (2) edit writing for correct spelling and sentence clarity;
- (3) apply grammar conventions correctly in writing, including:
 - (a) consistent verb tense;
 - (b) adjectives and adverbs;
 - (c) subject and verb agreement with simple and compound subjects;
 - (d) nominative, reflexive, objective, and possessive pronouns;
 - (e) pronoun/antecedent agreement;
 - (f) subject and verb agreement when interrupted by a phrase;
 - (g) active/passive voice; and
 - (h) subjunctive mood; and
- (4) apply punctuation conventions correctly in writing, including:
 - (a) apostrophes;
 - (b) semicolon;
 - (c) capitalizations of proper nouns;
 - (d) commas (compound sentences, and after subordinating conjunctions, nouns of address, nonessential clauses); and
 - (e) quotation marks.

STANDARD

D. Research. The student will locate and use information in reference materials.

BENCHMARK

The student will:

- (1) formulate questions, collect, organize, and synthesize relevant information from a variety of sources, including print and electronic media;
- (2) define plagiarism, its consequences, and avoid its use; and
- (3) cite sources for both quoted and paraphrased information in a bibliography when writing a research report.

STANDARD

E. Handwriting and word processing. The student will write legibly and demonstrate effective keyboarding skills.

BENCHMARK

The student will:

- (1) write legibly using cursive; and
- (2) format word-processed texts to present information in an organized, readable format, integrating graphics, illustrations, and bulleting as needed.

Subp. 3. Speaking, listening, and viewing. The student will speak clearly and effectively for a variety of purposes and audiences, and actively listen to, view, and evaluate oral communication and media.

STANDARD

A. Speaking and listening. The student will demonstrate understanding and communicate effectively through listening and speaking.

BENCHMARK

The student will:

- (1) participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups;
- (2) actively listen and comprehend messages;
- (3) apply self-assessment criteria to prepare and give oral presentations;

(4) distinguish between speaker's opinion and verifiable facts and analyze the credibility of the presentation;

(5) follow a speaker's presentation and represent it in notes;

(6) orally communicate information, opinions, and ideas effectively to different audiences, adjusting delivery and language for intended audience and purpose; and

(7) participate effectively in group meetings.

STANDARD

B. Media literacy. The student will critically analyze information found in electronic and print media, and will use a variety of these sources to learn about a topic and represent ideas.

BENCHMARK

The student will:

(1) evaluate the accuracy and credibility of information found on Internet sites;

(2) make informed evaluations about television, radio, film productions, newspapers, and magazines with regard to quality of production, accuracy of information, bias, purpose, message, and audience;

(3) critically analyze the messages and points of view employed in different media, including advertising, news programs, Web sites, and documentaries;

(4) analyze and evaluate the strategies employed in news broadcasts, documentaries, and Web sites related to clarity, accuracy, effectiveness, bias, and relevance of facts; and

(5) evaluate the content and effect of persuasive techniques used in print and broadcast media.

3501.0550 GRADES 9 THROUGH 12 STANDARDS.

Subpart 1. Reading and literature. The student will read and understand grade-appropriate English language text.

STANDARD

A. Word recognition, analysis, and fluency. Standards under this heading may be locally determined.

STANDARD

B. Vocabulary expansion. The student will apply a variety of strategies to expand vocabulary.

BENCHMARK

The student will:

(1) acquire, understand, and use vocabulary by learning words through explicit vocabulary instruction and independent reading, and appropriately use these words in writing;

(2) determine the meaning of unfamiliar words and metaphors by using dictionaries, context clues, and reference books;

(3) identify and analyze analogies;

(4) apply knowledge of Greek and Latin roots, prefixes, and suffixes to understand content-area vocabulary; and

(5) understand the meaning of unknown words using derivations, such as word roots and word origins.

STANDARD

C. Comprehension. The student will understand the meaning of informational, expository, or persuasive texts, using a variety of strategies and will demonstrate literal, interpretive, inferential, and evaluative comprehension.

BENCHMARK

The student will:

(1) monitor comprehension and know when and how to use strategies to clarify the understanding of a selection;

(2) comprehend and evaluate the purpose, accuracy, comprehensiveness, and usefulness of informational materials;

(3) analyze and draw accurate conclusions about information contained in warranties, contracts, job descriptions, technical descriptions, and other informational sources, selected from labels, warnings, manuals, directions, applications, and forms in order to complete specific tasks;

(4) analyze a variety of nonfiction materials selected from journals, essays, speeches, biographies, and autobiographies;

(5) summarize and paraphrase main idea and supporting details;

(6) trace the logical development of an author's argument, point of view, or perspective and evaluate the adequacy, accuracy, and appropriateness of the author's evidence in a persuasive text;

(7) make inferences and draw conclusions based on explicit and implied information from texts;

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(8) evaluate clarity and accuracy of information, as well as the credibility of sources;

(9) identify, understand, and explain the various types of fallacies in logic; and

(10) synthesize information from multiple selections in order to draw conclusions, make predictions, and form interpretations.

STANDARD

D. Literature. The student will actively engage in the reading process and read, understand, respond to, analyze, interpret, evaluate, and appreciate a wide variety of fiction, poetic, and nonfiction texts.

BENCHMARK

The student will:

(1) read, analyze, and evaluate traditional, classical, and contemporary works of literary merit from American literature;

(2) read, analyze, and evaluate traditional, classical, and contemporary works of literary merit from British literature;

(3) read, analyze, and evaluate traditional, classical, and contemporary works of literary merit from civilizations and countries around the world;

(4) evaluate the impact of an author's decisions regarding word choice, point of view, style, and literary elements;

(5) analyze, interpret, and evaluate the use of figurative language and imagery in fiction and nonfiction selections, including symbolism, tone, irony, and satire;

(6) analyze and evaluate the relationship between and among elements of literature: character, setting, plot, tone, symbolism, rising action, climax, falling action, point of view, theme, and conflict/resolution;

(7) evaluate a literary selection from several critical perspectives;

(8) analyze classic and contemporary poems for poetic devices;

(9) analyze the characteristics of literary forms;

(10) interpret the effect of literary and structural devices;

(11) demonstrate how literary works reflect the historical contexts that shaped them;

(12) synthesize ideas and make thematic connections among literary texts, public discourse, media, and other disciplines;

(13) read, analyze, and critique dramatic selections by comparing and contrasting ways in which character, scene, dialogue, and staging contribute to the theme and the dramatic effect;

(14) respond to literature using ideas and details from the text to support reactions and make literary connections; and

(15) read from and respond to a variety of fiction, poetic, and nonfiction texts of increasing complexity for personal enjoyment.

Subp. 2. Writing. The student will write clearly and coherently for a variety of audiences and purposes.

STANDARD

A. Type of writing. The student will write in narrative, expository, descriptive, persuasive, and critical modes.

BENCHMARK

The student will plan, organize, and compose narrative, expository, descriptive, persuasive, critical, and research writing to address a specific audience and purpose.

STANDARD

B. Elements of composition. The student will engage in a writing process with attention to audience, organization, focus, quality of ideas, and a purpose.

BENCHMARK

The student will:

(1) generate, gather, and organize ideas for writing;

(2) develop a thesis and clear purpose for writing;

(3) make generalizations and use supporting details;

(4) arrange paragraphs into a logical progression;

(5) revise writing for clarity, coherence, smooth transitions, and unity;

(6) apply available technology to develop, revise, and edit writing;

(7) generate footnotes, endnotes, and bibliographies in a consistent and widely accepted format; and

(8) revise, edit, and prepare final drafts for intended audiences and purposes.

STANDARD

C. Spelling, grammar, and usage. The student will apply standard English conventions when writing.

BENCHMARK

The student will:

- (1) understand the differences between formal and informal language styles and use each appropriately;
- (2) use an extensive variety of correctly punctuated sentences for meaning and stylistic effect; and
- (3) edit writing for correct grammar, capitalization, punctuation, spelling, verb tense, sentence structure, and paragraphing to enhance clarity and readability:
 - (a) correctly use reflexive case pronouns and nominative and objective case pronouns, including *who* and *whom*;
 - (b) correctly use punctuation such as the comma, semicolon, colon, hyphen, and dash;
 - (c) correctly use *like/as if, any/any other, this kind/these kinds, who/that, and every/many* when they occur in a sentence;
 - (d) correctly use verb forms with attention to subjunctive mood, subject/verb agreement, and active/passive voice; and
 - (e) correctly use the possessive pronoun before the gerund.

STANDARD

D. Research. The student will locate and use information in reference materials.

BENCHMARK

The student will:

- (1) use print, electronic databases, and on-line resources to access information, organize ideas, and develop writing;
- (2) identify key terms specific to research tools and processes;
- (3) narrow the focus of a search by formulating a concise research question or thesis;
- (4) develop a research plan;
- (5) evaluate and organize relevant information from a variety of sources, verifying the accuracy and usefulness of gathered information;
- (6) produce a report with detailed evidence to support a thesis;
- (7) distinguish between reliable and questionable Internet sources and apply responsible use of technology;
- (8) understand plagiarism and its consequences, and identify ethical issues of research and documentation;
- (9) organize and synthesize information from a variety of sources and present it in a logical manner;
- (10) credit sources for both quoted and paraphrased ideas;
- (11) cite sources of information using a standard method of documentation, such as a style sheet from the Modern Language Association (MLA) or from the American Psychological Association (APA); and
- (12) proofread the final copy, format correctly, and prepare the document for publication or submission.

STANDARD

E. Handwriting and word processing. Standards under this heading may be locally determined.

Subp. 3. **Speaking, listening, and viewing.** The student will speak clearly and effectively for a variety of purposes and audiences and actively listen to, view, and evaluate oral communication and media.

STANDARD

A. Speaking and listening. The student will demonstrate understanding and communicate effectively through listening and speaking.

BENCHMARK

The student will:

- (1) distinguish between speaker's opinion and verifiable facts and analyze the credibility of the presentation;
- (2) deliver a speech in a logical manner using grammatically correct language, including vocabulary appropriate to the topic, audience, and purpose;
- (3) understand the relationship between nonverbal, interpersonal, and small group communication;
- (4) describe the role of communication in everyday situations, such as advertising, informal social, business, and formal social;

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(5) understand the effects of media on society and culture;

(6) identify and understand essential elements, skills, and implications of persuasion, argumentation, and debate as essential oral skills; and

(7) apply assessment criteria to self-evaluation of oral presentation.

STANDARD

B. Media literacy. The student will critically analyze information found in electronic and print media, and will use a variety of these sources to learn about a topic and represent ideas.

BENCHMARK

The student will:

(1) evaluate the accuracy and credibility of information found on Internet sites;

(2) evaluate the logic of reasoning in both print and nonprint selections;

(3) evaluate the source's point of view, intended audience, and authority;

(4) determine whether the evidence in a selection is appropriate, adequate, and accurate;

(5) evaluate the content and effect of persuasive techniques used in print and broadcast media;

(6) make informed evaluations about television, radio, film productions, newspapers, and magazines with regard to quality of production, accuracy of information, bias, purpose, message, and audience;

(7) critically analyze the messages and points of view employed in different media, including advertising, news programs, Web sites, and documentaries;

(8) formulate critical, evaluative questions relevant to a print or nonprint selection;

(9) critically analyze and evaluate the strategies employed in news broadcasts, documentaries, and Web sites related to clarity, accuracy, effectiveness, bias, and relevance of facts; and

(10) demonstrate an understanding of ethics in mass communication and describe the characteristics of ethical and unethical behavior.

ACADEMIC STANDARDS IN MATHEMATICS

3501.0560 KINDERGARTEN STANDARDS.

STANDARD

Subpart 1. Mathematical reasoning. The student will apply skills of mathematical representation, communication, and reasoning for the standards under subparts 2 to 5.

BENCHMARK

The student will:

(1) create and solve word problems using actions, objects, words, pictures, or numbers;

(2) estimate and check that answers are reasonable; and

(3) explain to others how a problem was solved.

Subp. 2. Number sense, computation, and operations.

STANDARD

A. Number sense. The student will represent quantities using whole numbers and understand relationships among whole numbers.

BENCHMARK

The student will:

(1) count forward to 31, backward from ten;

(2) count the number of objects in a set and identify the quantity;

(3) compare the number of objects in two or more sets; and

(4) given a number, identify one more or one less.

STANDARD

B. Computation and operation. The student will add and subtract whole numbers up to six in real-world and mathematical problems.

BENCHMARK

The student will:

- (1) recognize the number of objects up to six, without counting; and
- (2) add and subtract whole numbers up to six, using concrete objects.

Subp. 3. Patterns, functions, and algebra.

STANDARD

A. Patterns and functions. The student will sort, classify, and compare objects based on their attributes. The student will understand simple repeating patterns.

BENCHMARK

The student will:

- (1) sort objects in a set by one attribute such as size, shape, color, or thickness;
- (2) identify an object that does not belong in a set; and
- (3) recognize, describe, and extend repeating patterns involving up to three elements using objects, pictures, sounds,

or movements.

STANDARD

B. Algebra, algebraic thinking. Standards under this heading may be locally determined.

Subp. 4. Data analysis, statistics, and probability.

STANDARD

A. Data and statistics. The student will depict data with objects and pictures.

BENCHMARK

The student will represent data about classmates or their surroundings by using objects or pictures.

STANDARD

B. Probability. Standards under this heading may be locally determined.

Subp. 5. Spatial sense, geometry, and measurement.

STANDARD

A. Spatial sense. The student will understand the meanings of terms used to describe location and placement of objects.

BENCHMARK

The student will locate and describe placement of objects with terms such as: on, inside, outside, above, below, over, under, beside, between, in front of, behind, next to, top, and bottom.

STANDARD

B. Geometry. The student will sort two- and three-dimensional shapes.

BENCHMARK

The student will sort two- and three-dimensional shapes according to their geometrical attributes.

STANDARD

C. Measurement. The student will understand terms and comparative language used in various measurement situations, identify tools to measure time, and identify coins.

BENCHMARK

The student will:

- (1) compare and order objects by length, weight, volume, temperature, or size and use appropriate vocabulary such as longer than, holds more, and smaller;
- (2) know that clocks and calendars are instruments to measure time;
- (3) recognize the following coins: penny, nickle, dime, and quarter; and
- (4) compare and order events based on time and use appropriate vocabulary such as yesterday, today, or tomorrow to describe relative time.

3501.0565 GRADE 1 STANDARDS.

STANDARD

Subpart 1. Mathematical reasoning. The student will apply skills of mathematical representation, communication, and reasoning for the standards under subparts 2 to 5.

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BENCHMARK

The student will:

- (1) create and solve word problems using actions, objects, words, pictures, or numbers;
- (2) estimate and check that answers are reasonable; and
- (3) explain to others how a problem was solved.

Subp. 2. Number sense, computation, and operations.

STANDARD

A. Number sense. The student will understand place value, ways of representing whole numbers, and relationships among whole numbers. The student will understand the concept of one-half.

BENCHMARK

The student will:

- (1) read, write numerals for, compare, and order numbers to 120;
- (2) count by twos to 30 and by fives to 120;
- (3) count backwards from 30;
- (4) demonstrate understanding of odd and even quantities up to 12;
- (5) represent whole numbers up to 20 in various ways, maintaining equality; and
- (6) identify one-half of a set of concrete objects.

STANDARD

B. Computation and operation. The student will add and subtract one-digit whole numbers in real-world and mathematical problems.

BENCHMARK

The student will:

- (1) use one-digit addition and subtraction to solve real-world and mathematical problems; and
- (2) find the sum of three one-digit numbers.

Subp. 3. Patterns, functions, and algebra.

STANDARD

A. Patterns and functions. The student will sort, classify, and compare objects based on their attributes. The student will understand repeating patterns.

BENCHMARK

The student will:

- (1) sort, classify, and compare objects in a set in more than one way; and
- (2) recognize, describe, and extend repeating patterns involving up to four elements.

STANDARD

B. Algebra, algebraic thinking. Standards under this heading may be locally determined.

Subp. 4. Data analysis, statistics, and probability.

STANDARD

A. Data and statistics. The student will gather and record data in real-world and mathematical problems.

BENCHMARK

The student will:

- (1) gather and record data about classmates and their surroundings in a simple graph; and
- (2) identify patterns in simple graphs.

STANDARD

B. Probability. Standards under this heading may be locally determined.

Subp. 5. Spatial sense, geometry, and measurement.

STANDARD

A. Spatial sense. The student will explore the concept of symmetry in real-world situations.

BENCHMARK

The student will explore symmetry of objects and designs through mirrors or paper folding.

STANDARD

B. Geometry. The student will use attributes of two- and three-dimensional shapes to identify them and distinguish between them.

BENCHMARK

The student will sort and describe two- and three-dimensional shapes according to their geometrical attributes.

STANDARD

C. Measurement. The student will measure length, time, and money using appropriate tools or units to solve real-world and mathematical problems.

BENCHMARK

The student will:

- (1) estimate and measure length and capacity using nonstandard units;
- (2) tell time to hour and half hour on analog and digital clocks;
- (3) using a calendar, identify the date, day of the week, month, year, yesterday, today, and tomorrow; and
- (4) combine pennies, nickles, or dimes to equal one dollar.

3501.0570 GRADE 2 STANDARDS.

STANDARD

Subpart 1. Mathematical reasoning. The student will apply skills of mathematical representation, communication, and reasoning for the standards under subparts 2 to 5.

BENCHMARK

The student will:

- (1) create and solve word problems using actions, objects, words, pictures, or numbers;
- (2) estimate and check that answers are reasonable; and
- (3) explain to others how a problem was solved.

Subp. 2. Number sense, computation, and operations.

STANDARD

A. Number sense. The student will understand place value, ways of representing whole numbers, and relationships among whole numbers. The student will understand the concept of unit fractions.

BENCHMARK

The student will:

- (1) read, write with numerals, compare, and order numbers to 999;
- (2) count by twos, fives, and tens from any given whole number;
- (3) understand and demonstrate the significance of groups of ten in the base ten number system;
- (4) represent numbers in equivalent ways; and
- (5) recognize, name, compare, and represent unit fractions with drawings or concrete materials.

STANDARD

B. Computation and operation. The student will compute fluently and make reasonable estimates with whole numbers in real-world and mathematical problems.

BENCHMARK

The student will:

- (1) use one- and two-digit addition and subtraction to solve real-world and mathematical problems;
- (2) demonstrate understanding of the relationships between odd and even numbers in addition and subtraction such as, $\text{odd} + \text{odd} = \text{even}$ or $\text{odd} - \text{even} = \text{odd}$;
- (3) understand the concept of multiplication as repeated addition or in rectangular arrays; and
- (4) understand the concept of division as repeated subtraction or sharing equally.

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Subp. 3. Patterns, functions, and algebra.

STANDARD

A. Patterns and functions. The student will understand repeating, growing, and shrinking patterns.

BENCHMARK

The student will recognize, create, and extend repeating, growing, and shrinking patterns using numbers, concrete objects, and pictures.

STANDARD

B. Algebra, algebraic thinking. The student will understand basic properties of addition and subtraction.

BENCHMARK

The student will:

- (1) describe what happens when zero is added to a number or subtracted from a number;
- (2) generate equivalent expressions for a given number such as $24 = 17 + 7$ or $24 = 100 - 76$;
- (3) determine the truth-value of an equation such as: true or false? $7 = 5 + 1$;
- (4) understand that adding two numbers in any order results in the same sum; and
- (5) understand that grouping numbers in multiple addend problems, in any order, results in the same sum.

Subp. 4. Data analysis, statistics, and probability.

STANDARD

A. Data and statistics. The student will collect and represent data in real-world and mathematical problems.

BENCHMARK

The student will:

- (1) collect and record categorical data;
- (2) create pictographs and real-object graphs to represent data; and
- (3) identify patterns in graphs or data sets.

STANDARD

B. Probability. Standards under this heading may be locally determined.

Subp. 5. Spatial sense, geometry, and measurement.

STANDARD

A. Spatial sense. The student will understand the concept of symmetry and apply it to simple drawings.

BENCHMARK

The student will create symmetrical patterns and designs.

STANDARD

B. Geometry. The student will use attributes of two- and three-dimensional shapes to identify them and distinguish between them.

BENCHMARK

The student will:

- (1) investigate and predict the results of putting together and taking apart two- and three-dimensional shapes; and
- (2) sort, classify, compare, and describe two- and three-dimensional objects according to their geometrical attributes.

STANDARD

C. Measurement. The student will measure length, time, temperature, and money using appropriate tools and units to solve real-world and mathematical problems.

BENCHMARK

The student will:

- (1) estimate standard and nonstandard linear measurements, then measure to check answer;
- (2) tell time to the quarter hour, half hour, and hour using analog and digital clocks, distinguishing between a.m. and p.m.;
- (3) know relationships among units of time such as minutes in an hour, days in a month, and weeks in a year;
- (4) read and write amounts of money using the symbols for dollars and cents, and proper placement of the decimal point with amounts of money; and

(5) combine coins to create amounts up to one dollar.

3501.0575 GRADE 3 STANDARDS.

STANDARD

Subpart 1. Mathematical reasoning. The student will apply skills of mathematical representation, communication, and reasoning for the standards under subparts 2 to 5.

BENCHMARK

The student will:

- (1) communicate, reason, and represent situations mathematically;
- (2) solve problems by distinguishing relevant from irrelevant information, sequencing and prioritizing information, and breaking multistep problems into simpler parts;
- (3) evaluate the reasonableness of the solution by considering appropriate estimates and the context of the original problem;
- (4) know when it is appropriate to estimate and when an exact answer with whole numbers, fractions, or decimals is needed;
- (5) express a written problem in suitable mathematical language, solve the problem, and interpret the result in the original context; and
- (6) support mathematical results using pictures, numbers, and words to explain why the steps in a solution are valid and why a particular solution method is appropriate.

Subp. 2. Number sense, computation, and operations.

STANDARD

A. Number sense. The student will represent whole numbers in various ways to quantify information and to solve real-world and mathematical problems. The student will understand the concepts of decimals and common fractions.

BENCHMARK

The student will:

- (1) read, write with numerals, compare, and order whole numbers to 9,999;
- (2) represent up to four-digit whole numbers in various ways maintaining equivalence, such as $3206 = (32 \times 100) + 6$ or $3206 = 3200 + 6$;
- (3) know how fractions are related to the whole, such as four-fourths equal a whole or three-fourths equal three of four equal parts of a whole; and
- (4) represent and write fractions with pictures, models, and numbers.

STANDARD

B. Computation and operation. The student will compute fluently and make reasonable estimates with whole numbers in real-world and mathematical problems. The student will understand addition and subtraction and how they relate to one another. The student will understand the concepts of multiplication and division.

BENCHMARK

The student will:

- (1) use addition of up to three whole number addends, containing up to four digits each in real-world and mathematical problems;
- (2) use subtraction with up to three-digit whole numbers in real-world and mathematical problems;
- (3) use the inverse relationship of addition and subtraction to compute and check results;
- (4) demonstrate mastery of basic addition facts for addends zero through nine, without a calculator;
- (5) demonstrate mastery of subtraction facts that are inverses of the basic addition facts, without a calculator;
- (6) demonstrate an understanding of the multiplication facts through ten using concrete models; and
- (7) use models to solve multiplication and division problems and use number sentences to record the solutions.

Subp. 3. Patterns, functions, and algebra.

STANDARD

A. Patterns and functions. The student will understand and describe patterns in numbers and shapes.

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BENCHMARK

The student will create and identify patterns in numbers and shapes and explain how to extend those patterns.

STANDARD

B. Algebra, algebraic thinking. The student will add and subtract whole numbers in the correct order to solve real-world and mathematical problems.

BENCHMARK

The student will:

- (1) identify a missing number or operation in a simple arithmetic equation such as $3 \dots 4 = 7$ or $9 - \dots = 2$; and
- (2) use the properties of addition and subtraction that involve ordering, grouping, and the number zero, to do simple computations with whole numbers.

Subp. 4. Data analysis, statistics, and probability.

STANDARD

A. Data and statistics. The student will represent and interpret data in real-world and mathematical problems.

BENCHMARK

The student will:

- (1) read and interpret data from circle graphs using halves, thirds, and quarters; and
- (2) collect data using observations or surveys and represent the data with pictographs and line plots with appropriate title and key.

STANDARD

B. Probability. The student will explore the basic concept of probability.

Subp. 5. Spatial sense, geometry, and measurement.

STANDARD

A. Spatial sense. The student will understand the concept of reflection symmetry as applied to geometric shapes. The student will understand how representations of shapes are affected by various motions.

BENCHMARK

The student will:

- (1) identify lines of symmetry in geometric shapes; and
- (2) recognize and predict the position and orientation of a shape after a single flip, slide, or turn.

STANDARD

B. Geometry. The student will classify shapes by specified attributes. The student will identify simple shapes within complex shapes.

BENCHMARK

The student will:

- (1) identify, describe, and classify two-dimensional shapes according to number and length of sides and kinds of angles; and
- (2) identify common two- and three-dimensional shapes that are components of more complex shapes.

STANDARD

C. Measurement. The student will measure and calculate length, time, weight, temperature, and money using appropriate tools and units to solve real-world and mathematical problems.

BENCHMARK

The student will:

- (1) select an appropriate tool and identify the appropriate unit to measure time, length, weight, and temperature;
- (2) find the perimeter of a polygon with whole number sides;
- (3) know relationships between units of length in a system of measurement, such as 12 inches equals one foot or 100 centimeters equals one meter;
- (4) tell time to the minute using digital and analog time;
- (5) determine elapsed time to the minute; and
- (6) make change using as few coins as possible up to a dollar.

3501.0580 GRADE 4 STANDARDS.

STANDARD

Subpart 1. Mathematical reasoning. The student will apply skills of mathematical representation, communication, and reasoning for the standards under subparts 2 to 5.

BENCHMARK

The student will:

- (1) communicate, reason, and represent situations mathematically;
- (2) solve problems by distinguishing relevant from irrelevant information, sequencing and prioritizing information, and breaking multistep problems into simpler parts;
- (3) evaluate the reasonableness of the solution by considering appropriate estimates and the context of the original problem;
- (4) know when it is appropriate to estimate and when an exact answer with whole numbers, fractions, or decimals is needed;
- (5) express a written problem in suitable mathematical language, solve the problem, and interpret the result in the original context; and
- (6) support mathematical results using pictures, numbers, and words to explain why the steps in a solution are valid and why a particular solution method is appropriate.

Subp. 2. Number sense, computation, and operations.

STANDARD

A. Number sense. The student will represent whole numbers in various ways to quantify information and to solve real-world and mathematical problems. The student will understand the concepts of fractions and decimals.

BENCHMARK

The student will:

- (1) read and write whole numbers to 100,000, in numerals and words;
- (2) compare and order whole numbers;
- (3) use fractions and decimals to solve problems representing parts of a whole, parts of a set, and division of whole numbers by whole numbers in real-world and mathematical problems; and
- (4) use rounding and estimation with whole numbers to solve real-world and mathematical problems.

STANDARD

B. Computation and operation. The student will compute fluently and make reasonable estimates with whole numbers in real-world and mathematical problems. The student will understand the meanings of arithmetic operations and how they relate to one another.

BENCHMARK

The student will:

- (1) use addition and subtraction of multidigit whole numbers to solve multistep real-world and mathematical problems;
- (2) add up to three whole numbers containing up to three digits each, without a calculator;
- (3) subtract whole numbers containing up to three digits each, without a calculator;
- (4) demonstrate mastery of multiplication facts for the numbers zero to ten, without a calculator;
- (5) use multiplication and division of whole numbers to solve simple real-world and mathematical problems;
- (6) use the inverse relationship of multiplication and division to compute and check results; and
- (7) multiply single-digit multiples of powers of ten such as 300×60 or 70×3 , mentally.

Subp. 3. Patterns, functions, and algebra.

STANDARD

A. Patterns and functions. The student will understand and describe patterns in tables and graphs.

BENCHMARK

The student will examine and describe patterns in tables and graphs.

STANDARD

B. Algebra, algebraic thinking. The student will apply arithmetic operations in the correct order to compute with whole

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numbers in real-world and mathematical problems.

BENCHMARK

The student will:

- (1) identify a missing number or operation in a simple arithmetic equation such as $3 \cdot 4 = 12$ or $45 \div \dots = 9$; and
- (2) use the properties of arithmetic that involve ordering, grouping, and the numbers one and zero, to do simple computations with whole numbers.

Subp. 4. Data analysis, statistics, and probability.

STANDARD

A. Data and statistics. The student will represent and interpret data in real-world and mathematical problems.

BENCHMARK

The student will:

- (1) collect data using observations or surveys and represent the data with tables and graphs with labeling; and
- (2) use mathematical language to describe a set of data.

STANDARD

B. Probability. The student will model simple probabilities by displaying the outcomes for real-world and mathematical problems.

BENCHMARK

The student will:

- (1) express outcomes of random experiments verbally and numerically such as three out of four or three-fourths; and
- (2) use physical models and pictures to represent possible arrangements of two or three objects.

Subp. 5. Spatial sense, geometry, and measurement.

STANDARD

A. Spatial sense. The student will understand spatial relationships and describe them using language such as congruent, similar, parallel, and perpendicular.

BENCHMARK

The student will:

- (1) identify congruent and similar figures; and
- (2) identify parallel and perpendicular lines.

STANDARD

B. Geometry. The student will use attributes of two- and three-dimensional shapes to identify them and distinguish between them.

BENCHMARK

The student will:

- (1) identify, describe, and classify two- and three-dimensional shapes by their attributes; and
- (2) identify right angles in geometric figures or in appropriate objects and determine whether other angles are greater or less than a right angle.

STANDARD

C. Measurement. The student will measure and calculate length and area using appropriate tools and units to solve real-world and mathematical problems. The student will make change with money.

BENCHMARK

The student will:

- (1) find the area and perimeter of a rectangle by measuring, using a grid, or using a formula, and label the answer with appropriate units;
- (2) understand that rectangles with the same area can have different perimeters and that rectangles with the same perimeter can have different areas; and
- (3) make change using as few coins and bills as possible up to \$20.

3501.0585 GRADE 5 STANDARDS.**STANDARD**

Subpart 1. Mathematical reasoning. The student will apply skills of mathematical representation, communication, and reasoning for the standards under subparts 2 to 5.

BENCHMARK

The student will:

- (1) communicate, reason, and represent situations mathematically;
- (2) solve problems by distinguishing relevant from irrelevant information, sequencing and prioritizing information, and breaking multistep problems into simpler parts;
- (3) evaluate the reasonableness of the solution by considering appropriate estimates and the context of the original problem;
- (4) know when it is appropriate to estimate and when an exact answer with whole numbers, fractions, or decimals is needed;
- (5) express a written problem in suitable mathematical language, solve the problem, and interpret the result in the original context;
- (6) support mathematical results using pictures, numbers, and words to explain why the steps in a solution are valid and why a particular solution method is appropriate; and
- (7) organize, record, and communicate math ideas coherently and clearly.

Subp. 2. Number sense, computation, and operations.

STANDARD

A. Number sense. The student will represent fractions, decimals, and whole numbers in a variety of ways, to quantify information and to solve real-world and mathematical problems. The student will understand the concept of negative numbers.

BENCHMARK

The student will:

- (1) read and write numbers up to three decimal places in numerals and words;
- (2) represent and compare positive and negative integers symbolically and on the number line and use them to solve real-world and mathematical problems;
- (3) recognize equivalent common fractions, decimals, and percentages; and
- (4) use a variety of estimation strategies such as rounding, truncation, overestimation, and underestimation, and decide when an estimated solution is appropriate.

STANDARD

B. Computation and operation. The student will compute fluently and make reasonable estimates with fractions, decimals, and whole numbers, in real-world and mathematical problems. The student will understand the meanings of arithmetic operations and how they relate to one another.

BENCHMARK

The student will:

- (1) use addition, subtraction, multiplication, and division of multidigit whole numbers to solve multistep, real-world and mathematical problems;
- (2) add and subtract numbers with up to two decimal places in real-world or mathematical problems;
- (3) add and subtract, without a calculator, numbers containing up to five digits such as $546.23 - 84.1$;
- (4) multiply, without a calculator, a two-digit whole number or decimal by a two-digit whole number or decimal, such as 3.2×3.4 ;
- (5) divide, without a calculator, a three-digit whole number or decimal by a one-digit whole number or decimal such as $3.51/3$;
- (6) model simple problems, arising from concrete situations, involving the addition and subtraction of common fractions and mixed numbers as well as fractions where the common denominator equals one of the denominators; and
- (7) interpret percents as a part of a hundred.

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Subp. 3. Patterns, functions, and algebra.

STANDARD

A. Patterns and functions. The student will understand and describe patterns in numbers, shapes, tables, and graphs.

BENCHMARK

The student will identify patterns in numbers, shapes, tables, and graphs and explain how to extend those patterns.

STANDARD

B. Algebra, algebraic thinking. The student will represent mathematical relationships using equations.

BENCHMARK

The student will evaluate numeric expressions in real-world and mathematical problems.

Subp. 4. Data analysis, statistics, and probability.

STANDARD

A. Data and statistics. The student will represent data and use various measures associated with data to draw conclusions and identify trends.

BENCHMARK

The student will:

- (1) determine whether or not a given graph matches a given data set;
- (2) use fractions and percentages to compare data sets;
- (3) collect data using measurements, surveys, or experiments and represent the data with tables and graphs with labeling; and
- (4) find mean, mode, median, and range of a data set.

STANDARD

B. Probability. The student will model simple probabilities by displaying the outcomes for real-world and mathematical problems.

BENCHMARK

The student will represent all possible outcomes for a simple probability problem with tables and grids, and draw conclusions from the results.

Subp. 5. Spatial sense, geometry, and measurement.

STANDARD

A. Spatial sense. The student will understand the concepts of reflection and rotation symmetry as applied to two-dimensional shapes.

BENCHMARK

The student will identify reflection and rotation symmetries in two-dimensional shapes and designs.

B. Geometry. The student will sort, classify, compare, and describe two- and three-dimensional objects.

BENCHMARK

The student will:

- (1) sort three-dimensional objects according to number and shape of faces, number of edges and vertices;
- (2) classify, compare, and identify acute, right, and obtuse angles;
- (3) classify polygons as regular or irregular; and
- (4) know the sum of the angles in triangles and quadrilaterals.

STANDARD

C. Measurement. The student will measure and calculate length, area, and capacity using appropriate tools and units to solve real-world and mathematical problems.

BENCHMARK

The student will:

- (1) find the area and perimeter of a triangle by measuring or using a grid, and label the answer with appropriate units;
- (2) use a two-dimensional pattern of a cube or rectangular box to compute the surface area; and
- (3) select and apply the appropriate units and tools to measure perimeter, area, and capacity.

3501.0590 GRADE 6 STANDARDS.

STANDARD

Subpart 1. Mathematical reasoning. The student will apply skills of mathematical representation, communication, and reasoning for the standards under subparts 2 to 5.

BENCHMARK

The student will:

(1) assess the reasonableness of a solution by comparing the solution to appropriate graphical or numerical estimates or by recognizing the feasibility of a solution in a given context;

(2) appropriately use examples and counterexamples to make and test conjectures, justify solutions, and explain results;

(3) translate a problem described verbally or by tables, diagrams, or graphs, into suitable mathematical language, solve the problem mathematically and interpret the result in the original context;

(4) support mathematical results by explaining why the steps in a solution are valid and why a particular solution method is appropriate;

(5) determine whether or not relevant information is missing from a problem; and

(6) use accurately common logical words and phrases such as “and,” “or,” “if . . . then . . .,” “unique,” “only if.”

Subp. 2. Number sense, computation, and operations.

STANDARD

A. Number sense. The student will use positive and negative rational numbers, represented in a variety of ways, to quantify information, and to solve real-world and mathematical problems.

BENCHMARK

The student will:

(1) order and compare integers, fractions, decimals, and mixed numbers with $>$, $<$, and $=$, and locate and compare positive and negative rational numbers on a number line; and

(2) use rounding and estimation with integers, decimals, and fractions to solve real-world and mathematical problems.

STANDARD

B. Computation and operation. The student will compute fluently and make reasonable estimates with positive and negative rational numbers in real-world and mathematical problems. The student will understand the meanings of arithmetic operations and factorization, and how they relate to one another. The student will appropriately use calculators and other technologies to solve problems.

BENCHMARK

The student will:

(1) determine the prime factorization of positive integers;

(2) determine the least common multiple and the greatest common divisor of whole numbers;

(3) use addition, subtraction, multiplication, and division of multidigit whole and decimal numbers to solve multistep real-world and mathematical problems;

(4) multiply and divide, without a calculator, numbers containing up to three digits by numbers containing up to two digits, such as $347 / 83$ or 4.91×9.2 ;

(5) find quotients with remainders and be able to express the remainder in various ways depending on the context of the problem;

(6) use the relationship between moving the decimal point and the operations of multiplication or division by powers of ten to simplify calculations;

(7) add, subtract, multiply, and divide common fractions and mixed numbers as well as fractions where the common denominator equals one of the denominators;

(8) find, represent, and use percentages in real-world and mathematical problems, including percentages greater than 100 percent and less than one percent;

(9) apply the correct order of operations and grouping symbols when using calculators and other technologies.

(10) know, use, and translate calculator notational conventions to mathematical notation; and

(11) understand that use of a calculator requires appropriate mathematical reasoning and does not replace the need

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for mental computation.

Subp. 3. Patterns, functions, and algebra.

STANDARD

A. Patterns and functions. The student will demonstrate understanding of the rectangular coordinate system.

BENCHMARK

The student will demonstrate understanding of the four quadrants in a rectangular coordinate system by writing and plotting ordered pairs.

STANDARD

B. Algebra, algebraic thinking. The student will apply arithmetic operations in the correct order to simplify and evaluate numeric expressions in real-world and mathematical problems.

BENCHMARK

The student will apply the correct order of operations including addition, subtraction, multiplication, division, and grouping symbols to simply and evaluate numeric expressions.

Subp. 4. Data analysis, statistics, and probability.

STANDARD

A. Data and statistics. The student will represent data and use various measures associated with data to draw conclusions and identify trends.

BENCHMARK

The student will:

- (1) collect, organize, and represent categorical and numerical data with tables and bar graphs;
- (2) understand the differences and appropriate use of mean, median, and mode; and
- (3) find the median and possible outliers.

STANDARD

B. Probability. The student will calculate and express probabilities numerically, and apply probability concepts to solve real-world and mathematical problems.

BENCHMARK

The student will:

- (1) generate and display data in graphs and tables to estimate experimental probabilities; and
- (2) represent all possible outcomes for a probability problem with tables, grids, and tree diagrams to calculate probabilities and draw conclusions from the results.

Subp. 5. Spatial sense, geometry, and measurement.

STANDARD

A. Spatial sense. The student will recognize the relationship between different representations of two- and three-dimensional shapes. The student will understand the effects of various transformations.

BENCHMARK

The student will:

- (1) create models of three-dimensional geometric shapes from two-dimensional representations;
- (2) predict the position and orientation of simple geometric shapes under transformations such as reflections, rotations, and translations; and
- (3) identify symmetries in three-dimensional shapes.

STANDARD

B. Geometry. The student will identify a variety of simple geometric figures by name, calculate various quantities associated with them, and use appropriate tools to draw them.

BENCHMARK

The student will:

- (1) use facts about angles including the relationship between complementary angles, supplementary angles, and the angles within triangles to solve real-world and mathematical problems;
- (2) classify triangles as equilateral, isosceles or scalene, and right, acute, or obtuse;

(3) find the area and circumference of a circle given the radius or diameter using common approximations of pi where appropriate; and

(4) measure, identify, and draw perpendicular and parallel lines, angles, and rectangles by using appropriate tools such as straightedge, ruler, compass, protractor, or software.

STANDARD

C. Measurement. The student will make calculations of time, length, area, and volume within standard measuring systems, using good judgment in choice of units.

BENCHMARK

The student will:

(1) solve problems requiring conversion of units within the U.S. customary system, and within the metric system;

(2) express measures of time and distance as fractions, mixed numbers, and decimals to solve real-world and mathematical problems; and

(3) find the area and perimeter of rectangles, squares, triangles, and parallelograms by measuring, using a grid, or using a formula.

3501.0595 GRADE 7 STANDARDS.

STANDARD

Subpart 1. Mathematical reasoning. The student will apply skills of mathematical representation, communication, and reasoning for the standards under subparts 2 to 5.

BENCHMARK

The student will:

(1) assess the reasonableness of a solution by comparing the solution to appropriate graphical or numerical estimates or by recognizing the feasibility of a solution in a given context;

(2) appropriately use examples and counterexamples to make and test conjectures, justify solutions, and explain results;

(3) translate a problem described verbally or by tables, diagrams, or graphs, into suitable mathematical language, solve the problem mathematically and interpret the result in the original context;

(4) support mathematical results by explaining why the steps in a solution are valid and why a particular solution method is appropriate;

(5) determine whether or not relevant information is missing from a problem; and

(6) use accurately common logical words and phrases such as “and,” “or,” “if . . . then . . .,” “unique,” “only if.”

Subp. 2. Number sense, computation, and operations.

STANDARD

A. Number sense. The student will use positive and negative rational numbers, represented in a variety of ways, to quantify information, and to solve real-world and mathematical problems.

BENCHMARK

The student will:

(1) represent rational numbers as fractions, mixed numbers, decimals, or percents and convert among various forms as appropriate;

(2) use scientific notation with positive powers of ten, with appropriate treatment of significant digits, to solve real-world and mathematical problems; and

(3) locate and compare positive and negative rational numbers on a number line.

STANDARD

B. Computation and operation. The student will compute fluently and make reasonable estimates with rational numbers in real-world and mathematical problems. The student will understand the meanings of the basic operations, including the use of integer exponents and square roots, and how the operations relate to one another. The student will appropriately use calculators and other technologies to solve problems.

BENCHMARK

The student will:

(1) add, subtract, multiply, and divide fractions and mixed numbers;

(2) use the inverse relationship between extracting square roots and squaring positive integers to solve real-world and

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mathematical problems;

(3) calculate the percentage of increase and decrease of a quantity in real-world and mathematical problems;

(4) convert among fractions, decimals, and percents and use these representations for estimations and computations in real-world and mathematical problems;

(5) understand and compute positive integer powers of nonnegative integers and express examples as repeated multiplication such as $3^4 = 3 \times 3 \times 3 \times 3 = 81$;

(6) apply the correct order of operations and grouping symbols when using calculators and other technologies;

(7) know, use, and translate calculator notational conventions to mathematical notation; and

(8) understand that use of a calculator requires appropriate mathematical reasoning and does not replace the need for mental computation.

Subp. 3. **Patterns, functions, and algebra.**

STANDARD

A. Patterns and functions. The student will demonstrate an understanding of rate of change graphically and numerically.

BENCHMARK

The student will:

(1) demonstrate, numerically and graphically, an understanding that rate is a measure of change of one quantity per unit change of another quantity in real-world and mathematical problems; and

(2) plot points on the graph of a linear function and identify the slope or rate of change.

STANDARD

B. Algebra, algebraic thinking. The student will apply arithmetic operations in the correct order to generate equivalent algebraic expressions and to solve simple formulas in real-world and mathematical problems.

BENCHMARK

The student will:

(1) apply the correct order of operations including addition, subtraction, multiplication, division, and grouping symbols to generate equivalent algebraic expressions;

(2) use the facts that the sum of a number and its opposite is zero and the product of a number and its reciprocal is one to generate equivalent algebraic expressions; and

(3) solve simple formulas with up to three variables, when the values of two of the variables are given.

Subp. 4. **Data analysis, statistics, and probability.**

STANDARD

A. Data and statistics. The student will represent data and use various measures associated with data to draw conclusions and identify trends.

BENCHMARK

The student will:

(1) construct and analyze simple scatter plots; and

(2) understand the meaning of, and be able to compute minimum, maximum, range, median, mean, and mode of a data set.

STANDARD

B. Probability. The student will calculate and express probabilities numerically and apply probability concepts to solve real-world and mathematical problems.

BENCHMARK

The student will:

(1) express probabilities as percentages, fractions, proportions, and decimals; and

(2) use a variety of experiments to explore the relationship between experimental and theoretical probabilities.

Subp. 5. **Spatial sense, geometry, and measurement.**

STANDARD

A. Spatial sense. The student will recognize the relationship between different representations of two- and three-dimensional shapes. The student will understand the effects of various transformations.

BENCHMARK

The student will:

- (1) recognize a view of a three-dimensional shape, given a view from a different orientation; and
- (2) use visual representations of transformations such as reflections, rotations, translations, and change of scale in one and two dimensions to solve real-world and mathematical problems.

STANDARD

B. Geometry. The student will use basic geometric principles and proportional reasoning to solve real-world and mathematical problems.

BENCHMARK

The student will:

- (1) calculate the radius, diameter, circumference, and area of a circle given any one of these;
- (2) calculate the area and perimeter of a sector of a circle given its angle and radius;
- (3) use ratios and proportions to interpret map scales and scale drawings; and
- (4) classify quadrilaterals as squares, rectangles, rhombi, parallelograms, kites, trapezoids, or none of these.

STANDARD

C. Measurement. The student will make calculations of time, length, area, and volume within standard measuring systems using good judgment in choice of units.

BENCHMARK

The student will choose appropriate units to calculate, measure, and record length, weight, area, and volume in both U.S. customary and metric systems.

3501.0600 GRADE 8 STANDARDS.

STANDARD

Subpart 1. **Mathematical reasoning.** The student will apply skills of mathematical representation, communication, and reasoning for the standards under subparts 2 to 5.

BENCHMARK

The student will:

- (1) assess the reasonableness of a solution by comparing the solution to appropriate graphical or numerical estimates or by recognizing the feasibility of a solution in a given context;
- (2) appropriately use examples and counterexamples to make and test conjectures, justify solutions, and explain results;
- (3) translate a problem described verbally or by tables, diagrams, or graphs, into suitable mathematical language, solve the problem mathematically, and interpret the result in the original context;
- (4) support mathematical results by explaining why the steps in a solution are valid and why a particular solution method is appropriate;
- (5) determine whether or not relevant information is missing from a problem; and
- (6) use accurately common logical words and phrases such as “and,” “or,” “if . . . then . . .,” “unique,” “only if.”

Subp. 2. **Number sense, computation, and operations.**

STANDARD

A. Number sense. The student will use rational and irrational numbers, represented in a variety of ways, to quantify information and to solve real-world and mathematical problems.

BENCHMARK

The student will:

- (1) represent and compare rational and irrational numbers symbolically and on a number line;
- (2) use rational and irrational numbers to solve real-world and mathematical problems;
- (3) use scientific notation with positive and negative powers of ten, with appropriate treatment of significant digits, to solve real-world and mathematical problems; and
- (4) classify numbers as rational or irrational.

STANDARD

B. Computation and operation. The student will compute fluently and make reasonable estimates with rational and irrational numbers in real-world and mathematical problems. The student will understand the meanings of the basic operations, includ-

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ing the use of integer exponents and n^{th} roots, and how the operations relate to one another. The student will appropriately use calculators and other technologies to solve problems.

BENCHMARK

The student will:

- (1) use calculator approximations of irrational and rational numbers in multistep real-world and mathematical problems;
- (2) find integer approximations of square roots of positive integers without a calculator;
- (3) multiply and divide expressions involving exponents with a common base;
- (4) use the inverse relationship between n^{th} roots and n^{th} powers of rational numbers to solve real-world and mathematical problems;
- (5) apply the correct order of operations and grouping symbols when using calculators and other technologies;
- (6) know, use, and translate calculator notational conventions to mathematical notation; and
- (7) understand that use of a calculator requires appropriate mathematical reasoning and does not replace the need for mental computation.

Subp. 3. Patterns, functions, and algebra.

STANDARD

A. Patterns and functions. The student will understand and describe progressions. The student will use graphs and tables to solve real-world and mathematical problems.

BENCHMARK

The student will:

- (1) recognize when a list of numbers from an arithmetic or geometric progression and be able to determine subsequent terms in the progression;
- (2) represent quantitative relationships graphically and use the graphs to solve real-world and mathematical problems; and
- (3) generate a table of values from a formula and graph the resulting ordered pairs on a grid.

STANDARD

B. Algebra, algebraic thinking. The student will use algebraic operations to generate equivalent expressions, and use proportional reasoning to solve real-world and mathematical problems. The student will demonstrate the ability to manipulate an equation by applying arithmetic operations to both sides to maintain equivalence.

BENCHMARK

The student will:

- (1) multiply and divide expressions of the form ax^n ;
- (2) use simple formulas with more than one variable to solve real-world and mathematical problems;
- (3) use proportions and percents with one unknown quantity to solve real-world and mathematical problems; and
- (4) apply the correct order of operations including addition, subtraction, multiplication, division, grouping symbols, and powers, to simplify and evaluate algebraic expressions.

Subp. 4. Data analysis, statistics, and probability.

STANDARD

A. Data and statistics. The student will represent data and use various measures associated with data to draw conclusions and identify trends.

BENCHMARK

The student will:

- (1) construct and analyze histograms, circle graphs, stem-and-leaf plots, and box-and-whisker plots; and
- (2) compute the quartiles of a data set.

STANDARD

B. Probability. The student will calculate and express probabilities numerically and apply probability concepts to solve real-world and mathematical problems.

BENCHMARK

The student will:

- (1) understand that if p is the probability of an event occurring, then $1 - p$ is the probability of the event not occurring;

(2) convert between odds and probabilities; and

(3) use a variety of experiments to explore the relationship between experimental and theoretical probabilities and the effect of sample size on this relationship.

Subp. 5. Spatial sense, geometry, and measurement.

STANDARD

A. Spatial sense. The student will recognize the relationship between different representations of two- and three-dimensional shapes. The student will understand the effects of various transformations.

BENCHMARK

The student will:

(1) use models and visualization to understand and create various two-dimensional diagrams of three-dimensional shapes; and

(2) predict the position and orientation of simple three-dimensional geometric shapes under transformations such as reflections, rotations, and translations.

STANDARD

B. Geometry. The student will use basic geometric principles and proportional reasoning to solve real-world and mathematical problems.

BENCHMARK

The student will:

(1) apply the relationship between changes in one or more linear distances in a planar figure and the change in area; and

(2) use the concept of similarity in simple two-dimensional figures to solve real-world and mathematical problems involving proportionality;

(3) know how to find the volumes of cubes, prisms, spheres, and cylinders;

(4) know how to find the surface areas of cubes, prisms, and cylinders; and

(5) calculate perimeter and area of two-dimensional figures obtained by putting together triangles, parallelograms, and sectors of circles to solve real-world and mathematical problems.

STANDARD

C. Measurement. The student will make calculations of time, length, area, and volume within and between standard measuring systems using good judgment in choice of units.

BENCHMARK

The student will:

(1) find approximate equivalent measures of length, temperature, and weight for common units in U.S. customary and metric measuring systems; and

(2) use arithmetic to solve simple real-world and mathematical problems involving mixed units such as minutes and hours in elapsed time, degrees and minutes in latitude and longitude, and feet and inches in distance.

3501.0605 GRADES 9 THROUGH 11 STANDARDS.

STANDARD

Subpart 1. Mathematical reasoning. The student will apply skills of mathematical representation, communication, and reasoning for the standards under subparts 2 to 5.

BENCHMARK

The student will:

(1) assess the reasonableness of a solution by comparing the solution to appropriate graphical or numerical estimates or by recognizing the feasibility of solutions in a given context and rejecting extraneous solutions;

(2) appropriately use examples and counterexamples to make and test conjectures, justify solutions, and explain results;

(3) translate a problem described verbally or by tables, diagrams, or graphs, into suitable mathematical language, solve the problem mathematically and interpret the result in the original context;

(4) support mathematical results by explaining why the steps in a solution are valid and why a particular solution method is appropriate;

(5) determine whether or not relevant information is missing from a problem and if so, decide how to best express the results that can be obtained without that information; and

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(6) know and use the relationship that exists among a logical implication of the form “if A, then B,” its converse “if B, then A,” its inverse “if not A, then not B,” and its contrapositive “if not B, then not A.”

Subp. 2. Number sense, computation, and operations.

STANDARD

A. Number sense. The student will use real numbers, represented in a variety of ways, to quantify information and to solve real-world and mathematical problems.

STANDARD

B. Computation and operation. The student will appropriately use calculators and other technologies to solve algebraic, geometric, probabilistic, and statistical problems.

BENCHMARK

The student will:

- (1) apply the correct order of operations and grouping symbols when using calculators and other technologies;
- (2) know, use, and translate calculator notational conventions to mathematical notation;
- (3) recognize the impact of units such as degrees and radians on calculations;
- (4) recognize that applying an inverse function with a calculator may lead to extraneous or incomplete solutions;
- (5) understand the limitations of calculators such as missing or additional features on graphs due to viewing parameters or misleading representations of zero or very large numbers; and
- (6) understand that use of a calculator requires appropriate mathematical reasoning and does not replace the need for mental computation.

Subp. 3. Patterns, functions, and algebra.

STANDARD

A. Patterns and functions. The student will represent and analyze real-world and mathematical problems using numeric, graphic, and symbolic methods for a variety of functions.

BENCHMARK

The student will:

- (1) know the numeric, graphic, and symbolic properties of linear, step, absolute value, and quadratic functions. Graphic properties may include rates of change, intercepts, maxima, and minima;
- (2) model exponential growth and decay, numerically, graphically, and symbolically, using exponential functions with integer inputs;
- (3) analyze the effects of coefficient changes on linear and quadratic functions and their graphs;
- (4) apply basic concepts of linear, quadratic, and exponential expressions or equations in real-world problems such as loans, investments, and the path of a projectile; and
- (5) distinguish functions from other relations using graphic and symbolic methods.

STANDARD

B. Algebra, algebraic thinking. The student will solve simple equations and inequalities numerically, graphically, and symbolically. The student will use recursion to model and solve real-world and mathematical problems.

BENCHMARK

The student will:

- (1) translate among equivalent forms of expressions, such as, simplify algebraic expressions involving nested pairs of parentheses and brackets, simplify rational expressions, factor a common term from an expression and apply associative, commutative, and distributive laws;
- (2) understand the relationship between absolute value and distance on the number line and graph simple expressions involving absolute value such as, $|x - 3| = 6$ or $|x + 2| < 5$;
- (3) find equations of a line given two points on the line, a point and the slope of the line or the slope and the y-intercept of the line;
- (4) translate among equivalent forms of linear equations and inequalities;
- (5) use a variety of models such as equations, inequalities, algebraic formulas, written statements, tables and graphs, or spreadsheets to represent functions and patterns in real-world and mathematical problems;
- (6) apply the laws of exponents to perform operations on expressions with integer exponents;

(7) solve linear equations and inequalities in one variable with numeric, graphic, and symbolic methods;

(8) find real solutions to quadratic equations in one variable with numeric, graphic, and symbolic methods;

(9) use appropriate terminology and mathematical notation to define and represent recursion;

(10) create and use recursive formulas to model and solve real-world and mathematical problems;

(11) solve systems of two linear equations and inequalities with two variables using numeric, graphic, and symbolic methods; and

(12) understand how slopes can be used to determine whether lines are parallel or perpendicular. Given a line and a point not on the line, find the equations for the lines passing through that point and parallel or perpendicular to the given line.

Subp. 4. Data analysis, statistics, and probability.

STANDARD

A. Data and statistics. The student will represent data and use various measures associated with data to draw conclusions and identify trends. The student will understand the effects of display distortion and measurement error on the interpretation of data.

BENCHMARK

The student will:

(1) construct and analyze circle graphs, bar graphs, histograms, box-and-whisker plots, scatter plots, and tables, and demonstrate the strengths and weaknesses of each format by choosing appropriately among them for a given situation;

(2) use measures of central tendency and variability, such as mean, median, maximum, minimum, range, standard deviation, quartile, and percentile, to describe, compare, and draw conclusions about sets of data;

(3) determine an approximate best-fit line from a given scatter plot and use the line to draw conclusions;

(4) know the influence of outliers on various measures and representations of data about real-world and mathematical problems;

(5) understand the relationship between correlation and causation;

(6) interpret data credibility in the context of measurement error and display distortion; and

(7) compare outcomes of voting methods such as majority, plurality, ranked by preference, run-off and pair-wise comparison.

STANDARD

B. Probability. The student will use appropriate counting procedures, calculate probabilities in various ways, and apply theoretical probability concepts to solve real-world and mathematical problems.

BENCHMARK

The student will:

(1) select and apply appropriate counting procedures to solve real-world and mathematical problems, including probability problems;

(2) use area, trees, unions, and intersections to calculate probabilities and relate the results to mutual exclusiveness, independence, and conditional probabilities, in real-world and mathematical problems;

(3) use probability models, including area and binomial models, in real-world and mathematical problems;

(4) for simple probability models, determine the expected values of random variables;

(5) know the effect of sample size on experimental and simulation probabilities; and

(6) use a variety of experimental, simulation, and theoretical methods to calculate probabilities.

Subp. 5. Spatial sense, geometry, and measurement.

STANDARD

A. Spatial sense. The student will use models to represent and understand two- and three-dimensional shapes and how various motions affect them. The student will recognize the relationship between different representations of the same shape.

BENCHMARK

The student will use models and visualization to understand and represent three-dimensional objects and their cross sections from different perspectives.

STANDARD

B. Geometry. The student will apply basic theorems of plane geometry, right triangle trigonometry, coordinate geometry, and a variety of visualization tools to solve real-world and mathematical problems.

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BENCHMARK

The student will:

(1) know and use theorems about triangles and parallel lines in elementary geometry to justify facts about various geometrical figures and solve real-world and mathematical problems. These theorems include criteria for two triangles to be congruent or similar and facts about parallel lines cut by a transversal;

(2) know and use theorems about circles to justify geometrical facts and solve real-world and mathematical problems. These theorems include the relationships involving tangent lines and radii, the relationship between inscribed and central angles and the relationship between the measure of a central angle and arc length;

(3) know and use properties of two- and three-dimensional figures to solve real-world and mathematical problems such as: finding area, perimeter, volume, and surface area; applying direct or indirect methods of measurement; the Pythagorean theorem and its converse; and properties of $45^\circ - 45^\circ - 90^\circ$ and $30^\circ - 60^\circ - 90^\circ$ triangles;

(4) apply the basic concepts of right triangle trigonometry including sine, cosine, and tangent to solve real-world and mathematical problems;

(5) use coordinate geometry to represent and examine geometric concepts such as the distance between two points, the midpoint of a line segment, the slope of a line, and the slopes of parallel and perpendicular lines;

(6) use numeric, graphic, and symbolic representations of transformations such as reflections, translations, and change of scale in one, two, and three dimensions to solve real-world and mathematical problems;

(7) perform basic constructions with a straightedge and compass; and

(8) draw accurate representations of planar figures using a variety of tools.

STANDARD

C. Measurement. The student will use the interconnectedness of geometry, algebra, and measurement to explore real-world and mathematical problems.

3501.0610 GRADES 11 AND 12 STANDARDS FOR ELECTIVE COURSES.

STANDARD

Subpart 1. **Statistics.** The student will use tables of the normal distribution and properties of that distribution to make judgments about populations based on random samples from these populations.

BENCHMARK

The student will:

(1) use the concept of normal distribution and its properties to answer questions about sets of data;

(2) describe and use sampling distributions and the central limit theorem. Calculate confidence intervals when appropriate; and

(3) understand the importance of appropriate sampling methods. For instance, the time of day of a survey could lead to inaccuracies in the outcome.

STANDARD

Subp. 2. **Algebra.** The student will demonstrate facility with a wide range of algebraic operations and use the relationship between coordinate geometry and algebraic equations to solve real-world and mathematical problems.

BENCHMARK

The student will:

(1) solve systems of two, three, or more simultaneous linear equations or inequalities, in particular, deciding whether a given system of equations has one solution, no solution, or infinitely many solutions and, in this latter case, describing them parametrically;

(2) solve problems with quadratic functions and equations, where some of the coefficients may be expressed in terms of parameters;

(3) perform the four arithmetic operations with polynomials, except that division is restricted to division by monomials and linear binomials;

(4) simplify a wide variety of algebraic expressions, including those in which numerator or denominator needs to be rationalized;

(5) apply the laws of exponents to perform operations on expressions with fractional exponents;

(6) know the numeric, graphic, and symbolic properties of power, logarithmic, and exponential functions;

(7) solve a wide variety of mathematical and real-world problems involving power, exponential, and logarithmic func-

tions and equations, discard extraneous solutions and present results graphically;

(8) know the numeric, graphic, and symbolic properties of rational functions;

(9) solve a wide variety of mathematical and real-world problems involving rational functions, discard extraneous solutions and present results graphically;

(10) factor polynomials representing the difference of squares, perfect square trinomials and quadratics with rational factors;

(11) make sketches including axes, centers, asymptotes, vertices of parabola, ellipses (including circles) and hyperbolas with axes parallel to the coordinate axes, given their equations, and completing the square if necessary;

(12) find equations of parabolas, ellipses, and hyperbolas when presented with their graphs having axes parallel to the coordinate axes;

(13) add, subtract, multiply, and divide complex numbers, interpret sums geometrically, and find complex solutions of quadratic equations;

(14) know and use the Factor and Remainder Theorems;

(15) find the inverse of a function and the composition of functions by numeric and symbolic methods. Know the relationship between the graphs of a function and its inverse; and

(16) know and use formal notation for sequences and series to solve related problems.

STANDARD

Subp. 3. **Trigonometry and geometry.** The student will understand the properties of the standard trigonometric functions and apply them to real-world and mathematical problems, especially geometrical problems. The student will develop increased mastery of geometric proof methodology.

BENCHMARK

The student will:

(1) know the six trigonometric functions defined for an angle in a right triangle;

(2) given the coordinates of a point on the terminal side of an angle in a standard position in the xy-plane, find the values of the trigonometric functions;

(3) convert between degrees and radian measures;

(4) solve applied problems about triangles using the law of sines including the ambiguous case;

(5) solve applied problems about triangles using the law of cosines;

(6) graph the functions of the forms $A\sin(Bt+C)$, $A\cos(Bt+C)$, and $A\tan(Bt+C)$ and know the meaning of the terms frequency, amplitude, phase shift, and period;

(7) simplify trigonometric expressions using identities and verify simple trigonometric identities including $\sin^2 x + \cos^2 x = 1$, sum, difference, double angle and half-angle formulas for sine and cosine;

(8) find all the solutions of a trigonometric equation on various intervals; and

(9) know and be able to use the definitions of the inverse trigonometric functions and related methods to solve problems such as find $\cos(x)$ and $\tan(x)$ given the value of $\sin(x)$ and the quadrant containing the terminal side.

ACADEMIC STANDARDS IN THE ARTS

3501.0620 KINDERGARTEN THROUGH GRADE 3 STANDARDS.

STANDARD.

The student will understand and use artistic processes to create, perform, and interpret art works in at least two of the three arts areas required to be offered by a school from the following: dance, music, theater, and visual arts.

BENCHMARK.

A. Dance. The student will:

(1) understand the elements of dance, including action, space, time, and energy;

(2) understand the characteristics of dance from a variety of cultures and historical times;

(3) use basic movement skills in musical or rhythmic contexts; and

(4) create and perform sequences of movement with a beginning, middle, and end to communicate a story, life experience, theme, or idea.

B. Music. The student will:

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- (1) understand the elements of music, including melody, rhythm, harmony, dynamics, tone color, texture, and form;
- (2) understand the characteristics of music from a variety of cultures and historical times;
- (3) sing a varied repertoire of songs in a group;
- (4) improvise and compose on classroom instruments to communicate an idea;
- (5) play simple rhythms and melodies on classroom instruments; and
- (6) read and write music using a system of notation.

C. Theater. The student will:

- (1) understand the elements of theater, including plot, theme, character, language, sound, and spectacle;
- (2) understand the characteristics of theater from a variety of cultures and historical times;
- (3) use movement, sound, and language to create images and express ideas;
- (4) create characterizations of animals, objects, or shapes; and
- (5) communicate a story and character using voice, movement, costume, and props.

D. Visual Arts. The student will:

- (1) understand the elements of visual art, including color, line, shape, form, texture, and space;
- (2) understand the characteristics of visual art from a variety of cultures and historical times;
- (3) use the tools, basic skills, and techniques of at least three different mediums; and
- (4) create original works of art to communicate ideas.

3501.0625 GRADES 4 AND 5 STANDARDS.

STANDARD.

The student will understand and use artistic processes to create, perform, and interpret art works in at least two of the three arts areas required to be offered by a school from the following: dance, music, theater, and visual arts.

BENCHMARK.

A. Dance. The student will:

- (1) understand the following components of dance:
 - (a) elements, including action, space, time, and energy;
 - (b) principles of choreography, such as repetition, pattern, or unity; and
 - (c) vocabulary;
- (2) understand cultural and historical forms or traditions of dance;
- (3) understand how dance elements are similar to and different from the elements of other arts areas, such as music, theater, or visual arts;
- (4) perform characteristic movements and styles of dance from more than one form or tradition;
- (5) create movement sequences with or without music; and
- (6) generate multiple responses to movement ideas.

B. Music. The student will:

- (1) understand the following components of music:
 - (a) elements, including melody, rhythm, harmony, dynamics, tone color, texture, and form; and
 - (b) vocabulary;
- (2) understand cultural and historical forms or traditions of music;
- (3) understand how musical elements are similar to and different from the elements of other arts areas, such as dance, theater, or visual arts;
- (4) sing or play traditional instruments alone and sing rounds and part songs or play traditional instruments in a group;
- (5) improvise and compose rhythms, melodies, and accompaniments using classroom instruments, voice, or both to express a specific musical idea;
- (6) perform rhythmic, melodic, and harmonic patterns on classroom instruments; and
- (7) read and write music using a system of musical notation.

C. Theater. The student will:

- (1) understand the following components of theater:

(a) elements, including plot, theme, character, language, sound, and spectacle;

(b) forms, such as tragedy, comedy, farce, or melodrama; and

(c) vocabulary;

(2) understand cultural and historical forms or traditions of theater;

(3) understand how theater elements are similar to and different from the elements of other arts areas, such as dance, music, or visual arts;

(4) create a character based on fiction or life experience using movement, voice, costume, and props; and

(5) create a dramatic performance by interpreting and adapting the plot, characters, and language from an existing piece of literature.

D. Visual Arts. The student will:

(1) understand the following components of visual arts:

(a) elements, including color, line, shape, form, texture, and space;

(b) principles, such as repetition, contrast, or balance; and

(c) vocabulary;

(2) understand the cultural and historical forms or traditions of visual arts;

(3) understand how visual arts elements are similar to and different from the elements of other arts areas, such as dance, music, or theater;

(4) use elements, principles, skills, and techniques of at least three different mediums; and

(5) create original works of art to express specific artistic ideas.

3501.0630 GRADES 6 THROUGH 8 STANDARDS.

STANDARD.

Subpart 1. Artistic interpretation. The student will understand and use artistic processes to analyze and interpret a variety of works in at least two of the three arts areas required to be offered by a school from the following: dance, music, theater, and visual arts.

BENCHMARK.

A. Dance. The student will:

(1) understand how the following components of dance are used to convey meaning:

(a) elements, including action, space, time, and energy;

(b) principles of choreography, such as repetition, pattern, or unity;

(c) vocabulary;

(d) styles, such as tap, ballet, or modern; and

(e) choreographic structures, such as theme and variation;

(2) understand the connection between a work in dance, its purpose, and its cultural and historical contexts;

(3) understand how the principles and vocabulary of dance are similar to and different from other arts areas, such as music, theater, or visual art;

(4) communicate a personal reaction to performances of original works or interpretations and performances of existing works in dance using the components of dance; and

(5) use criteria to evaluate performances in dance.

B. Music. The student will:

(1) understand how the following components of music are used to convey meaning:

(a) elements, including melody, rhythm, harmony, dynamics, tone color, texture, and form;

(b) vocabulary;

(c) styles, such as blues, jazz, or opera; and

(d) structures, such as ABA;

(2) understand the connection between a work of music, its purpose, and its cultural and historical contexts;

(3) understand how the vocabulary of music is similar to and different from other arts areas, such as dance, theater, or visual arts;

(4) communicate a personal reaction to performances of original works, compositions, or interpretations and performances of existing music using the components of music; and

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(5) use criteria to evaluate musical performances.

C. Theater. The student will:

(1) understand how the following components of theater are used to convey meaning:

(a) elements, including plot, theme, character, language, sound, and spectacle;

(b) forms, such as tragedy, comedy, farce, or melodrama;

(c) vocabulary;

(d) styles, such as romantic or classical; and

(e) structures, such as chronological or nonlinear;

(2) understand the connection between a work in theater, its purpose, and its cultural and historical contexts;

(3) understand how the forms and vocabulary of theater are similar to and different from other arts areas, such as dance, music, or visual arts;

(4) communicate a personal reaction to performances of original works or interpretations and performances of existing works in theater using the components of theater; and

(5) use criteria to evaluate performances in theater.

D. Visual Arts. The student will:

(1) understand how the following components of visual arts are used to convey meaning:

(a) elements, including color, line, shape, form, texture, and space;

(b) principles, such as repetition, contrast, or balance;

(c) vocabulary;

(d) styles, such as abstract or impressionist; and

(e) structures, such as two dimensional or three dimensional;

(2) understand the connection between a visual art work, its purpose, and its cultural and historical contexts;

(3) understand how the principles and vocabulary of visual art are similar to and different from other arts areas, such as dance, music, or theater;

(4) communicate a personal reaction to works in visual art using the components of visual art; and

(5) use criteria to evaluate works of visual art.

STANDARD.

Subp. 2. Artistic creativity and performance. The student will understand and use artistic processes to create and perform in at least two of the three arts areas required to be offered by a school from the following: dance, music, theater, and visual arts.

BENCHMARK.

A. Dance. The student will:

(1) understand the following components of dance:

(a) elements, including action, space, time, and energy;

(b) principles of choreography, such as repetition, pattern, or unity;

(c) vocabulary;

(d) styles, such as tap, ballet, or modern; and

(e) choreographic structures, such as theme and variation;

(2) understand technical skills of dance, such as alignment, locomotor, or nonlocomotor movement skills;

(3) understand how audience and occasion affect artistic choices in creating and performing dance;

(4) use artistic processes to create and perform in a variety of dance contexts;

(5) express and communicate ideas using the components of dance;

(6) use improvisation to generate ideas for artistic expression in dance;

(7) make and explain artistic choices in creating and performing dance; and

(8) use feedback to revise both creation and performance of dance.

B. Music. The student will:

(1) understand the following components of music:

(a) elements, including melody, rhythm, harmony, dynamics, tone color, texture, and form;

- (b) vocabulary;
- (c) styles, such as blues, jazz, or opera; and
- (d) structures, such as ABA;

- (2) understand technical skills of music, such as singing or playing instruments;
- (3) understand how audience and occasion affect artistic choices when composing and performing music;
- (4) use artistic processes to create and perform in a variety of musical contexts;
- (5) express and communicate ideas using the components of music;
- (6) use improvisation and composition to generate ideas for artistic expression in music;
- (7) make and explain artistic choices in composing and performing music; and
- (8) use feedback to revise musical creation or performance.

C. Theater. The student will:

- (1) understand the following components of theater:
 - (a) elements, including plot, theme, character, language, sound, and spectacle;
 - (b) forms, such as tragedy, comedy, farce, or melodrama;
 - (c) vocabulary;
 - (d) styles, such as romantic or classical; and
 - (e) structures, such as chronological or nonlinear;
- (2) understand technical skills in the theater, such as scenery or prop design;
- (3) understand how audience and occasion affect artistic choices in creation and performance in theater;
- (4) use artistic processes to create and perform in a variety of theater contexts;
- (5) express and communicate ideas using the components of theater;
- (6) use improvisation to generate ideas for creating and performing in theater;
- (7) make and explain artistic choices in creation and performance; and
- (8) use feedback to revise creation or performance in theater.

D. Visual Arts. The student will:

- (1) understand the following components of visual art:
 - (a) elements, including color, line, shape, form, texture, and space;
 - (b) principles, such as repetition, contrast, or balance;
 - (c) vocabulary;
 - (d) styles, such as abstract or impressionist; and
 - (e) structures, such as two dimensional or three dimensional;
- (2) understand technical skills of visual arts, such as selecting and using tools and techniques of the medium;
- (3) understand how audience and occasion affect artistic choices in creation of visual art;
- (4) use artistic processes to create in a variety of visual art contexts;
- (5) express and communicate ideas using the components of visual arts;
- (6) generate ideas for artistic expression in visual arts;
- (7) make and explain artistic choices in creating visual art; and
- (8) use feedback to revise artistic expression in visual art.

3501.0635 GRADES 9 THROUGH 12 STANDARDS.

STANDARD.

Subpart 1. Analysis and interpretation. The student will understand and apply artistic process to analyze, interpret, and evaluate art works in at least one of the three arts areas required to be offered by a school from the following: dance, media arts, music, theater, and visual arts.

BENCHMARK.

A. Dance. The student will:

- (1) understand how a synthesis of the following components of dance is used to define a work in dance:
 - (a) elements, including action, space, time, and energy;

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(b) principles of choreography, such as repetition, pattern, or unity;

(c) vocabulary;

(d) choreographic structures, such as theme and variation;

(e) styles, such as tap, ballet, or modern; and

(f) technical skills, such as alignment, locomotor, or nonlocomotor movement;

(2) understand the similarities and differences among the styles and choreographic structures within dance;

(3) understand how the selection of criteria affects criticism of a dance creation, interpretation, or performance;

(4) understand the connections between dance and other disciplines outside the arts, such as mathematics, science, or

history;

(5) select criteria for evaluating the performances of original dances or the interpretations and performances of existing dances;

(6) analyze and interpret dance through its historical, cultural, or social context;

(7) support personal reactions to the performances of original dances or the interpretations and performances of existing dances using the components of dance; and

(8) articulate informed evaluations of performances of original dances or the interpretations and performances of existing dances using selected criteria.

B. Media Arts. The student will:

(1) understand how a synthesis of the following components of media arts is used to define a work in media arts:

(a) elements, including image, sound, space, time, motion, and sequence;

(b) principles, such as repetition, unity, or contrast;

(c) vocabulary;

(d) structures, such as chronological or spatial;

(e) styles, such as documentary, narrative, or abstract; and

(f) technical skills, such as selection and use of the tools of the medium;

(2) understand the similarities and differences among the structures and styles within media arts;

(3) understand how the selection of criteria affects criticism of a work in media arts;

(4) understand the connection between media arts and other disciplines outside the arts, such as mathematics, science,

or history;

(5) select criteria for evaluating works in media arts;

(6) analyze and interpret media art through its historical, cultural, or social context;

(7) support personal reactions to media art works using the components of media arts; and

(8) articulate informed evaluations of media art works using selected criteria.

C. Music. The student will:

(1) understand how a synthesis of the following components of music is used to define a composition, interpretation, or performance in music:

(a) elements, including melody, rhythm, harmony, dynamics, tone color, texture, and form;

(b) vocabulary;

(c) styles, such as blues, jazz, or opera;

(d) structures, such as ABA; and

(e) technical skills, such as singing or playing instruments;

(2) understand the similarities and differences among the structures and styles within music;

(3) understand how the selection of criteria affects criticism of a musical composition, interpretation, or performance;

(4) understand the connections between music and other disciplines outside the arts, such as mathematics, science, or

history;

(5) select criteria for evaluating the performances of original compositions or the interpretations and performances of existing compositions;

(6) analyze and interpret music through its historical, cultural, or social context;

(7) support personal reactions to performances of original compositions or the interpretations and performances of

existing compositions using the components of music; and

(8) articulate informed evaluations of performances of original compositions or the interpretations and performances of existing compositions using selected criteria.

D. Theater. The student will:

(1) understand how a synthesis of the following components of theater are used to define a work in theater:

(a) elements, including plot, theme, character, language, sound, and spectacle;

(b) forms, such as tragedy, comedy, farce, or melodrama;

(c) vocabulary;

(d) styles, such as romantic or classical;

(e) structures, such as chronological or nonlinear; and

(f) technical skills, such as scenery or prop design;

(2) understand the similarities and differences among the structures and styles within theater;

(3) understand how the selection of criteria affects criticism of a theater creation, interpretation, or performance;

(4) understand the connections between theater and other disciplines outside the arts, such as mathematics, science,

or history;

(5) select criteria for evaluating performances of original works or the interpretation and performance of existing works in theater;

(6) analyze and interpret theater through its historical, cultural, or social context;

(7) support personal reactions to original works or the interpretation and performance of existing works in theater using the components of theater; and

(8) articulate informed evaluations of original works or the interpretation and performance of existing works in theater using selected criteria.

E. Visual Arts. The student will:

(1) understand how a synthesis of the following components of visual arts is used to define a work in visual art:

(a) elements, including color, line, shape, form, texture, and space;

(b) principles, such as repetition, contrast, or balance;

(c) vocabulary;

(d) styles, such as abstract or impressionist;

(e) structures, such as two dimensional or three dimensional; and

(f) technical skills, such as selecting and using tools and techniques of the medium;

(2) understand the similarities and differences among the structures and styles within visual arts;

(3) understand how the selection of criteria affects criticism of a work in visual arts;

(4) understand the connections between visual arts and other disciplines outside the arts, such as mathematics, science, or history;

(5) select criteria for evaluating visual art works;

(6) analyze and interpret visual art through its historical, cultural, or social context;

(7) support personal reactions to visual art works using the components of visual arts; and

(8) articulate informed evaluations of visual art works using selected criteria.

STANDARD.

Subp. 2. Creation and performance. The student will understand and use artistic processes to create original or perform existing works of art in at least one of the three arts areas required to be offered by a school from the following: dance, media arts, music, theater, and visual arts. As an elective, the student may understand and use artistic processes to create original or perform existing works of art in another art form or creative writing if offered by a school.

BENCHMARK.

A. Dance. The student will:

(1) understand the integration of the following components of dance:

(a) elements, including action, space, time, and energy;

(b) principles of choreography, such as repetition, pattern, or unity;

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- (c) vocabulary;
- (d) choreographic structures, such as theme and variation;
- (e) styles, such as tap, ballet, or modern; and
- (f) technical skills, such as alignment, locomotor, or nonlocomotor movement;

dance works;

- (3) use artistic processes to create an original or perform an existing single, complex work or multiple works in dance;
- (4) use improvisation to generate original ideas for work in dance;
- (5) make decisions based on artistic intent;
- (6) make choices based on analysis of audience and occasion for dance; and
- (7) revise dance using multiple sources of critique and feedback.

B. Media Arts. The student will:

- (1) understand the integration of the following components of media arts:
 - (a) elements, including image, sound, space, time, motion, and sequence;
 - (b) principles, such as repetition, unity, or contrast;
 - (c) vocabulary;
 - (d) structures, such as chronological or spatial;
 - (e) styles, such as documentary, narrative, or abstract; and
 - (f) technical skills, such as selection and use of the tools of the medium;
- (2) understand the cultural, historical, or social contexts that influence the creation of media arts;
- (3) use artistic processes to create a single, complex work or multiple works in media arts;
- (4) generate and clarify artistic intent for work in media arts;
- (5) make decisions based on artistic intent;
- (6) make choices based on analysis of audience and occasion for media art work; and
- (7) revise media art work using multiple sources of critique and feedback.

C. Music. The student will:

- (1) understand the integration of the following components of music:
 - (a) elements, including melody, rhythm, harmony, dynamics, tone color, texture, and form;
 - (b) vocabulary;
 - (c) styles, such as blues, jazz, or opera;
 - (d) structures, such as ABA; and
 - (e) technical skills, such as singing or playing instruments;
- (2) understand the cultural, historical, or social contexts that influence the creation, interpretation, or performance of
- (3) use artistic processes to create an original or perform an existing single, complex work or multiple works in music;
- (4) use improvisation to generate original ideas for music composition or performance;
- (5) make decisions based on artistic intent;
- (6) make choices based on analysis of audience and occasion for music composition, interpretation, or performance; and
- (7) revise music composition, interpretation, or performance using multiple sources of critique and feedback.

music;

D. Theater. The student will:

- (1) understand the integration of the following components of theater:
 - (a) elements, including plot, theme, character, language, sound, and spectacle;
 - (b) forms, such as tragedy, comedy, farce, or melodrama;
 - (c) vocabulary;
 - (d) styles, such as romantic or classical;
 - (e) structures, such as chronological or nonlinear; and
 - (f) technical skills, such as scenery or prop design;

- (2) understand the cultural, historical, or social contexts that influence creation, interpretation, or performance in theater;
- (3) use artistic processes to create an original or perform an existing single, complex work or multiple works in theater;
- (4) use improvisation to generate original ideas for theater work;
- (5) make decisions based on artistic intent;
- (6) make choices based on analysis of audience and occasion for theater work; and
- (7) revise original creation or interpretation and performance of existing work in theater using multiple sources of critique and feedback.

E. Visual Arts. The student will:

- (1) understand the integration of the following components of visual arts:
 - (a) elements, including color, line, shape, form, texture, and space;
 - (b) principles, such as repetition, contrast, or balance;
 - (c) vocabulary;
 - (d) styles, such as abstract or impressionist;
 - (e) structures, such as two dimensional or three dimensional; and
 - (f) technical skills, such as selecting and using tools and techniques of the medium;
- (2) understand the cultural, historical, or social contexts that influence creation of visual art;
- (3) use artistic processes to create a single, complex work or multiple works in visual arts;
- (4) generate and clarify artistic intent for work in visual arts;
- (5) make decisions based on artistic intent;
- (6) make choices based on analysis of audience and occasion for work in visual arts; and
- (7) revise visual art works using multiple sources of critique and feedback.

F. Creative Writing. The student will:

- (1) understand the integration of the following components of creative writing:
 - (a) elements, including plot, character, setting, imagery, theme, point of view, and conflict;
 - (b) principles, such as balance or repetition;
 - (c) vocabulary;
 - (d) structural forms, such as short story, novella, or prose poem;
 - (e) styles, such as classical, romantic, or gothic; and
 - (f) technical skills, such as organization or focus;
- (2) understand the cultural, historical, or social contexts that influence the creation of the writing;
- (3) use artistic processes to create a single, complex work or multiple works in creative writing;
- (4) generate and clarify artistic intent for writing;
- (5) make decisions based on artistic intent;
- (6) make choices based on analysis of audience and occasion for writing; and
- (7) revise writing using multiple sources of critique and feedback.

Board of Nursing

Notice of Meetings of the Minnesota Board of Nursing

NOTICE IS HEREBY GIVEN that the 2004 meetings of the Minnesota Board of Nursing have been scheduled at 9:00 a.m., at 2829 University Avenue SE, 4th Floor, Conference Rooms A & B, Minneapolis, Minnesota on the following dates:

February 5-6, 2004
April 1-2, 2004
June 3-4, 2004
August 12-13, 2004
October 7-8, 2004
December 2-3, 2004

A portion of each meeting is review of disciplinary cases and is closed to the public.

For details about time of the open meeting, the agenda or other information, please call (612) 617-2297.

Official Notices

Public Employees Retirement Association

Notice of Meeting of the Board of Trustees

A meeting of the Board of Trustees of the Public Employees Retirement Association (PERA) will be held on Thursday, December 11, 2003, at 9:30 a.m., in the PERA offices, 60 Empire Drive, Room 117, Saint Paul, Minnesota. A **Legislative Committee meeting** will be incorporated into the Regular Board meeting of the Board of Trustees.

Minnesota Department of Revenue

Request for Comments on Possible Amendment of Rules Governing Valuation and Assessment of the Property of Utility Companies, *Minnesota Rules*, chapter 8100

Subject of Rules. The Minnesota Department of Revenue requests comments on its possible amendment of rules governing the valuation and assessment of utility companies, including the property of electric generation, transmission and distribution systems, natural gas distribution systems, petroleum pipelines, and natural gas transmission pipelines. The department is considering rule amendments that update the existing rule in light of current economic conditions and that properly reflect the market values of the subject properties.

Persons Affected. Amendment of the rules would likely affect utility companies. Amendments are also likely to affect county auditors and county assessors as well as other county officials.

Statutory Authority. *Minnesota Statutes*, section 270.06, subdivision 14, grants general rulemaking authority to the Commissioner of Revenue.

Public Comment. Interested persons or groups may submit comments or information on these possible rules in writing until further notice is published in the *State Register* that the department intends to adopt or to withdraw the rules. By law, a notice of intent to adopt cannot be published sooner than 60 days following the publication of the request for comments, at a minimum. The department does not contemplate appointing an advisory committee to comment on the possible rules.

Rules Drafts. The department has not yet prepared a draft of the possible rules amendments.

Agency Contact Person. Written or oral comments, questions, and requests for more information on these possible rules should be directed to:

Harriet Sims
Appeals and Legal Services Division
Minnesota Department of Revenue
600 North Robert Street
St. Paul Minnesota 55146-2220
(651) 215-5938 (until December 19, 2003)
(651) 556-4085 (effective December 22, 2003)
(651) 296-8229 (FAX)
harriet.sims@state.mn.us
TTY users may call the department at TTY 711

Alternative Format. Upon request, this Request for Comments can be made available in an alternative format, such as large print, Braille, or cassette tape. To make such a request, please contact the agency contact person at the address or telephone number listed above.

Dated: November 26, 2003

Daniel A. Salomone, Commissioner
Department of Revenue

Teachers Retirement Association

Notice of Meeting

The Board of Trustees, Minnesota Teachers Retirement Association will hold a meeting on Wednesday, December 17, 2003 at 9:30 a.m. in Suite 400, 60 Empire Drive, St. Paul, MN to consider matters which may properly come before the Board.

State Grants & Loans

In addition to requests by state agencies for technical/professional services (published in the State Contracts Section), the *State Register* also publishes notices about grants and loans available through any agency or branch of state government. Although some grant and loan programs specifically require printing in a statewide publication such as the *State Register*, there is no requirement for publication in the *State Register* itself. Agencies are encouraged to publish grant and loan notices, and to provide financial estimates as well as sufficient time for interested parties to respond.

Minnesota Housing Finance Agency

Consolidated Request for Proposals for Single Family RFP, Multifamily RFP, and Housing Tax Credit Program

The Minnesota Housing Finance Agency (MHFA), the Greater Minnesota Housing Fund, the Metropolitan Council, the Family Housing Fund, the St. Paul Public Housing Agency, and the Minnesota Department of Corrections announce the availability of funds through a Consolidated Request for Proposals (RFP). Funds are available to assist in the development, construction, acquisition, demolition, or rehabilitation of affordable homeownership, home improvement, or rental housing activities for low and moderate-income residents of Minnesota.

Limited amounts of funding are available for the following Multifamily activities:

- operating subsidies for new or existing MHFA financed housing developments,
- tenant-based and sponsor-based rental assistance programs under the Housing Trust Fund Rental Assistance Program, and
- project-based rental assistance for developments located within the jurisdiction of St. Paul PHA.

The Consolidated RFP represents an effort to coordinate the resources available within the agency, and to address communities' comprehensive housing efforts.

Eligible applicants are invited to submit proposal(s) for the Single Family RFP, the Multifamily RFP and the Housing Tax Credit Program. Separate Single Family and Multifamily proposals are required; due dates are a week apart.

In the event that a comprehensive housing proposal is submitted that consists of both single family and multifamily units within the same geographical area, you must complete both a single family and multifamily application.

Amount of Funds Available:

Fund availability is listed individually under the Single Family, Multifamily and Housing Tax Credit sections below.

Eligible Locations:

MHFA funds are generally available statewide; while respective RFP partners' funds are available only in the Twin Cities Metropolitan area or Greater Minnesota depending upon the specific funding partner.

Eligible Applicants:

In general, eligible applicants for the majority of resources include Minnesota Cities, limited dividend entities, for profit organizations, a nonprofit organization, a private developer, a natural person, an Indian tribe or tribal housing corporation, a public housing agency, a joint powers board established by two or more cities, and a cooperative housing corporation.

In addition to the above, eligible applicants for multifamily and tax credit proposals also include corporations and partnerships.

*Habitat for Humanity organizations are **not eligible** to apply for funding from the Community Revitalization Fund (CRV) as the primary applicant under the "traditional Habitat model", but are eligible to be secondary partners with those applicants previously mentioned.*

Economic Development and Housing Challenge Fund Program Rule Waiver and Temporary Priority

Rule Waiver - Economic Vitality and Housing Initiatives (EVHI):

The MHFA, at its November 20, 2003 Board meeting, obtained a waiver effective for this RFP round, to eliminate the requirement to utilize EVHI guidelines as thresholds when reviewing proposals and making funding recommendations. The MHFA is in the process of revising the rules for the Economic Development and Housing Challenge Program in regard to this. The expected completion date for the rule change is Summer 2004.

Temporary Priority - JOBZ Zones:

The 2003 Minnesota Legislature established JOBZ zones under the Department of Employment and Economic Development (DEED) to stimulate economic development activity in distressed areas of the state with emphasis on Greater Minnesota.

At its November 20, 2003 Board meeting, the MHFA established a temporary funding priority under the Economic Development and Housing Challenge Program for the next year for housing proposals located within JOBZ zones with an increase in housing demand associated with the JOBZ program.

State Grants & Loans

Single Family RFP

Limited Fund Program Information

The Limited Fund programs are highly competitive. The funding partners anticipate having approximately \$4 million available this round. Limited Fund proposals will be presented to a Selection Committee for evaluation, scoring and funding consideration. The Selection Committee is comprised of MHFA staff, representatives from the various funding partners and staff from the Minnesota Department of Employment and Economic Development (DEED).

I. Programs Available:

- **Greater Minnesota Housing Fund (GMHF):** 1) Building Better Neighborhoods (BBN) Program - For projects that meet BBN guidelines, GMHF provides gap financing (0% interest, deferred loans) for homebuyers and/or below-market interim financing for the developer - available for land acquisition, infrastructure or construction. 2) Single-Family New Construction Program - For qualified projects, GMHF provides gap financing (0% interest, deferred loans) for homebuyers. Interim financing may be available on a limited basis. For both the BBN and Single-Family New Construction programs, additional funds are available to support projects with employer assistance. Organizations applying for GMHF homebuyer gap financing should indicate how they are marketing to and targeting low-income families and children.
- **Community Revitalization Fund (CRV).** The Family Housing Fund, Metropolitan Council, GMHF and MHFA provide funds for this program. The CRV is the umbrella name for a variety of limited funding resources that are provided under one fund. Funding resources include the Economic Development and Housing Challenge Program (Challenge Program) and internal interim construction financing programs. Funds are provided in the form of a construction loan or deferred loan, repayable to the funder. Under certain circumstances and justification a grant may be provided. Generally, if an activity may be addressed through a loan rather than a grant, a loan will be provided. If a CRV proposal submitted includes a multifamily component, you must also submit a Multifamily RFP proposal. To obtain Multifamily application materials, refer to the Application Process section of this notice.
- **Local Housing Incentive Account (LHIA).** The Metropolitan Council provides funds for this program. Funds from this account are awarded as grants that must be matched on a dollar-for-dollar basis by the municipality receiving the funds. These grant funds may be used for costs associated with projects that help municipalities meet their negotiated housing goals, including, but not limited to acquisition, rehabilitation and construction of permanent affordable and life-cycle housing.
- **Inclusionary Housing Account (IHA).** The Metropolitan Council will have a small amount of funding available to assist new housing developments (new construction or reuse of non-residential buildings) that will include units with a variety of prices and designs, which serve families with a range of incomes and housing needs, and which will have identifiable development cost reduction as the result of reduced or waived local regulation or fees.

II. Types of Funds Available:

The type, terms and conditions of assistance provided will vary depending upon the needs outlined in each application and the availability of funding resources.

The contributing partners strongly encourage communities to leverage funds with the resources available through this RFP to address the local housing need(s) identified in their comprehensive housing plan.

III. Funding Partners Program Income Limits/Guidelines:

Please refer to each of the program concepts for specific income limits/guidelines.

- **Greater Minnesota Housing Fund** only serves households with incomes that do not exceed 80% of the statewide median income adjusted by household size.
- **Family Housing Fund** only serves households with incomes that do not exceed 80% of the Twin Cities metropolitan area median income with priority given to households with incomes at or below 50% - 60% of area median income.
- **Metropolitan Council's LHIA** serves households with incomes that do not exceed 80% of the Twin Cities metropolitan area median income with preference for those at 60% or below. Rehabilitation and redevelopment programs in areas of low valued, blighted or substandard properties may serve households up to 115% of area median income.
- **The Minnesota Department of Corrections** - Institution Community Work Crew Affordable House Building Program serves households with incomes at or below 80% or greater of state or area median income. In certain areas households with incomes of up to 115% of state median may also be served. Homes must be priced so as not to compete with the private residential construction industry.

- **Minnesota Housing Finance Agency** only serves households with incomes that are at or below 115% of the greater of state or area median income.

Ongoing Program Information

Your agency may apply for any of these programs at any time during the year. Please contact the Program Manager listed below to obtain a program application. Ongoing applications are not included in this RFP.

- **Community Activity Set Aside Program (CASA)**

The Community Activity Set Aside Program supports partnerships between lenders, local governments, and nonprofit housing organizations by providing access to pools of MHFA mortgage revenue bond funds and second mortgage funds. CASA assists those partnerships in meeting the homeownership objectives and housing credit needs of their communities by providing first time homebuyer loans with a subsidized interest rate and deferred, interest free Homeownership Assistance Fund (HAF) loans of up to \$14,440 per household. Specifically, the program supports initiatives that target funds toward underserved populations, increasing the stock of affordable housing or addressing a community specific housing credit need. Partnerships apply for CASA funds. Partnerships consist of a MHFA contract lender or lender consortia and a community partner. The application materials are on the MHFA website at www.mhfa.state.mn.us.

Program Contact: Kim Stuart (651) 296-9959 kim.stuart@state.mn.us
Toll Free (800) 710-8871 Fax (651) 296-8292

- **Community Fix-up Fund (CFUF)**

Encourages partnership efforts between local lenders, nonprofit organizations, local governments, and community organizations by providing funds to assist a designated community in addressing its specific home improvement needs or objectives. Applications must be submitted by participating MHFA Fix-up Fund lenders (or participating lender consortia), in partnership with a nonprofit organization delivering housing programs, or a city.

Program Contact: Susan Ude (651) 297-3656 susan.ude@state.mn.us
Toll free (800) 710-8871 Fax (651) 296-8292

- **Entry Cost Homeownership Opportunity Program (ECHO)**

Support community lending initiatives developed by private and public sector mortgage lenders in partnership with community representatives. The program provides funds to low and moderate-income borrowers for down payment and closing cost assistance and to address minor property repairs. Partnerships may apply for this program on a pipeline or ongoing basis.

Program Contact: Edward Niewinski (651) 297-3130 ed.niewinski@state.mn.us
Toll free (800) 710-8871 Fax (651) 296-8292

- **Institution Community Work Crew (ICWC) Affordable House Building Program**

The Minnesota Department of Corrections (MNDOC) may provide assistance through the Institution Community Work Crew (ICWC) Affordable House Building Program. ICWC Affordable House Building Program can provide interest-free interim construction financing, but only to non-profit entities. A letter from the MNDOC must be attached to your proposal indicating if an ICWC program is or will be available in the area you have identified. Contact the Program Manager for future availability of funds.

Program Contact: Ron Solheid at MNDOC (651) 603-0010 rsolheid@co.doc.state.mn.us
Fax (651) 642-0457

- **Urban Indian Housing Program - Special (UIHP)**

Supports innovative methods of providing affordable housing for urban American Indians, (in the 7 county metro area and cities of Duluth and Bemidji) including, but not limited to, the construction, purchase or rehabilitation of residential and rental housing.

Programs Contact: Edward Niewinski (651) 297-3130 ed.niewinski@state.mn.us
Toll free (800) 710-8871 Fax (651) 296-8292

Program Liaison: Rick Smith (651) 297-4060 rick.smith@state.mn.us
Toll Free: (800) 710-8871 Fax: (651) 296-8292

MULTIFAMILY RFP

Funding Availability

Estimated total deferred loan funding available is \$9,270,000. Specific programs and dollar amounts are listed below. The MHFA also has resources available for first mortgage financing under the Low and Moderate Income Rental Program.

Please note:

- **No funding available under the Economic Development and Housing Challenge program.** The entire year's appropriation was expended in the previous round in order to fund developments selected under the Housing Tax Credit Program.

State Grants & Loans

- No funding available under the Housing Opportunities for Persons with AIDs program.

MHFA Programs and Estimated Funding Available:

Capital Resources:

- Preservation ARIF (PARIF): \$2.5 million
- Housing Trust Fund (HTF) - capital: approximately \$1.2 million

Non-Capital Resources:

- Housing Trust Fund Operating Subsidy (HTFOS): up to \$500,000.
- Housing Trust Fund Rental Assistance (HTFRA): \$1 million available for tenant-based and sponsor-based rental assistance programs.

Funding Partner Programs and Estimated Funding Available:

Capital Resources:

- Family Housing Fund (FHF): estimate \$1 million
- Metropolitan Council - Local Housing Incentive Account (LHIA): up to \$1.5 million
- Metropolitan Council - Inclusionary Housing Account (IHA): up to \$320,000
- Greater Minnesota Housing Fund (GMHF): estimate \$1.25 million

Non-Capital Resources:

- St. Paul Public Housing Agency: up to 50 units of project-based rental assistance

Types of Multifamily Funding Available

The Multifamily RFP funding sources listed above may be provided in several forms. More detailed program information, including financing terms and specific program requirements, is provided in the Selection Guide.

- **Deferred loan funds** are generally in the form of a zero percent (0%), 30 year deferred or subordinate loan or grant. Actual interest rate, term and type of loan or grant will vary depending upon recommended funding source(s) and will be discussed in detail with sponsors upon selection for funding. The Agency will allow non-recourse debt to single-asset entities.

For developments using the **Federal Housing Tax Credit Program**, loans may be structured with an interest rate to be eligible for inclusion in qualified basis. More information on the Housing Tax Credit Program follows this section.

- **Long term fixed rate mortgages** for acquisition, refinance, or new construction of multifamily housing for developments that generate adequate income to service debt are also available. These mortgages are offered through the Low and Moderate Income Rental Program (LMIR). Separate application materials are not required for the first mortgage programs. Source of funding available is Agency reserves, taxable, or tax-exempt bonds. First mortgage programs may be used in conjunction with housing tax credits for new construction or acquisition/rehabilitation.
- **Operating Subsidies:** HTF operating subsidies are available for new or existing MHFA financed housing developments. The HTF operating subsidy is awarded in the form of a grant and may be provided for up to 10 years.
- **Rent Assistance:** Project-based rental assistance is available through St. Paul Public Housing Agency's Section 8 Project-Based Rental Assistance Program. Project-based rent assistance is tied directly to a specific unit or project. Eligible families continue to receive assistance as long as they reside in the specific project-based dwelling unit.

Funding for tenant-based and sponsor-based rental assistance programs is available through the MHFA's Housing Trust Fund Rental Assistance Program. The HTF rent subsidy is awarded in the form of a grant. The HTF rental subsidy can be provided to a tenant for no more than five consecutive years.

Eligible Projects and Activities

In general, the funding sources available for capital needs can be used for a variety of activities and housing types. Eligible activities include new construction, acquisition of land or existing structures, rehabilitation of housing, refinancing of existing loans, preservation of federally assisted housing, conversion to housing from another use, demolition, construction financing, permanent financing. Operating subsidy is an eligible activity, however as previously indicated, funding is limited. Eligible housing types include permanent housing, transitional housing, emergency shelters, permanent supportive housing, and service-enriched housing.

Developments in which economic integration is provided or maintained are encouraged. Additionally, the MHFA has a preference for new construction in areas of job and population growth.

State Grants & Loans

Eligible projects must contain a minimum of four units. Scattered site developments, must be located in the same city or county and also contain a minimum of four units.

Developments with age restrictions of 55 and older are ineligible under most funding sources. State licensed nursing homes, board and care facilities and supervised living facilities are not eligible for funding. Any development providing nursing care services is not eligible for funding.

Income and Rent Limits

The overall goal of the Multifamily RFP process is to serve lower income households. Priority will generally be given to those developments serving the lowest income households.

The relationship between proposed rent levels and Fair Market Rents is an important factor because it is crucial that Section 8 voucher holders be able to rent units in MHFA-financed developments.

The following are income and rent limits for the various multifamily resources available this RFP round:

Preservation Affordable Rental Investment Fund (PARIF): Income limits are subject to federal guidelines per the program being preserved. Rents are based on restrictions per the federal subsidy being preserved.

Housing Trust Fund (HTF): Income limit - 60% of Twin Cities area median with a priority for proposals targeting 30% of Twin Cities area median. Rents affordable at 60% of Twin Cities area median with a priority for proposals affordable at 30% of Twin Cities area median.

Low and Moderate Income Rental Program (LMIR): Income limits - 40% of units must be occupied by individuals/families whose income is 60% or less of area median income; or 20% of the units must be occupied by individuals/families whose income is 50% or less than area median income. 25% of the units may have unrestricted incomes. The balance of units must be occupied by tenants with incomes equal to or less than 100% area median income. Rent limits - 40% of the units affordable to persons at 60% of income; or 20% of units affordable to persons at 50% of income; and the balance of units with rents at MHFA determined "market".

Housing Tax Credit Program (HTC): Income limit at 50% area median income or 60% area median income. Maximum rent limit at 60% area median. There is a priority for units affordable at 50% and 30% area median income.

Family Housing Fund (FHF): Income limit - 60% of area median income. Rents affordable up to 60% of area median income.

Greater Minnesota Housing Fund (GMHF): Gross household income, 80% of statewide median income, adjusted by family size. For supportive housing, priority is given to projects serving households at 60% or less of statewide median income. For preservation or rehabilitation projects, priority is given to projects serving households at or below 50% of statewide median income. Rents shall be affordable to the targeted population.

Local Housing Incentives Account, Metropolitan Council (LHIA): 50% of funds dedicated to creating/preserving units with incomes and rents at 30% of median income. Remaining funds targeted towards incomes and rents at or below 50% of median income. Funds may be reallocated to projects at 50% of median income, if there is insufficient supply of projects at 30% of median income.

Inclusionary Housing Account, Metropolitan Council (IHA): Proposals must include units affordable to households with incomes at or below 80% of area median income. Economic integration is encouraged, particularly with regard to how proposals address the housing needs of households with incomes at 30 and 60 percent of area median income. Priority will be given to proposals that emphasize economic integration and where at least 10 percent of the rental units in a housing development are affordable to households with incomes at or below 30% of area median income.

St. Paul Public Housing Agency: Project based rent assistance is targeted to very low-income families. Rents are based on federal Section 8 rent subsidy guidelines.

Housing Tax Credit Program

The Minnesota Housing Finance Agency (MHFA) is pleased to announce that it is accepting 2004 Round 2 competition applications for reservation and allocation of Housing Tax Credits, authorized by the Federal Tax Reform Act of 1986, as revised.

Housing Tax Credits offer a ten-year reduction in tax liability to owners and investors in eligible low-income rental housing developments involving new construction, rehabilitation or existing rental housing with rehabilitation. General information on tax credit availability and information on how to make application for tax credits is posted on MHFA's Internet web site (www.mhfa.state.mn.us/multifamily/multifamily_tax.htm).

Total estimated 2004 tax credits available for the State of Minnesota is approximately \$ 8.8 million. The total estimated 2004 tax credits available for 2004 Round 2 is approximately \$730,000. MHFA has estimated the housing credit ceiling for Minnesota for calendar year 2004 based upon the amounts of the housing credit ceiling for calendar year 2003. The actual housing credit ceiling for the year 2004 will not be known by MHFA until some time in February or March of 2004. In early 2004 the IRS will make a final determination of Minnesota's population component used in determining Minnesota's final year 2004 housing credit ceiling.

State Grants & Loans

The IRS will publish this population component some time in February or March of 2004.

In 2004 Round 2, priorities will be given to proposals which have previously received an allocation of tax credits and are in need of a supplemental allocation, contain a request for Preservation priorities, or contain a request for RD set-aside credit in a manner consistent with the 2004 Qualified Allocation Plan.

MHFA will be establishing a Wait List from the non-selected proposals remaining at the conclusion of the 2004 Round 2 competition. Proposals from this list will be considered to receive returned credits, if any, which become available for allocation prior to October 1, 2004.

The MHFA's Housing Tax Credit Program, Qualified Allocation Plan and related manual contents were revised in preparation for the 2004 tax credit year. Details regarding these changes can be found on MHFA's Internet web site.

No significant changes have been made to the tax credit materials or application process for 2004 Round 2. MHFA will not be holding a formal tax credit application training session for the 2004 Round 2 RFP. Tax credit "technical assistance" may be obtained in conjunction with any scheduled Multifamily technical assistance session. Please refer to the related section appearing later in this RFP for additional details.

Credit Formula

The Minnesota Legislature designated the MHFA as the primary apportionment agency for housing tax credits for the state and also authorized eligible cities and counties to administer the tax credits in their respective jurisdictions based on the *Minnesota Statutes* Section 462A.222, Subd. 1(a)(2).

Local Administration of Tax Credit

For Round 2, applicants within Suballocator or Joint Powers Suballocator jurisdictions apply directly to the MHFA.

MHFA Administration Tax Credits

In all tax credit rounds, applicants with eligible buildings in the balance of the state, not within the jurisdiction of a Suballocator, may apply to the MHFA for an allocation of housing tax credits.

Each year, 10 percent of the state ceiling is set aside by MHFA for qualified 501(c)(3) and 501(c)(4) nonprofits as required by Section 42 of the *Internal Revenue Code* of 1986. Qualified nonprofits can apply to MHFA for these credits, regardless of the geographic location of the proposed low-income housing development, as specified in the allocation plan.

Application Process

Access application materials as follows:

- **Single Family:** The Single Family application is available on the MHFA website at www.mhfa.state.mn.us/rfp_sf.htm in a pdf format. If you are unable to access our website call (651) 297-3118, or Toll Free: 1-800-710-8871 to obtain a hard copy.
- **Multifamily RFP and Housing Tax Credits (2004 Round 2):** The Multifamily RFP and Housing Tax Credit application materials are available on the MHFA website at www.mhfa.state.mn.us/multifamily/multifamily_forms.htm. Please refer to the website for more detailed Application Instructions. If you are unable to access the web or need assistance locating or identifying the appropriate materials, contact the Multifamily Division at (651) 297-3294 or Toll Free: 1-800-657-3701.

RFP INFORMATION AND TECHNICAL ASSISTANCE SESSIONS:

- **Single Family:** Please check the MHFA website mid-December at www.mhfa.state.mn.us/rfp.htm for Single Family training or technical assistance dates, times and locations, and registration information. Technical assistance is tentatively planned for mid-January, 2004.
- **Multifamily and Housing Tax Credit:** Multifamily Division staff is available for technical assistance on an on-going basis. Additionally, Multifamily Division staff will be available all day on Tuesday, January 13, 2004 for technical assistance. Please check the MHFA website at www.mhfa.state.mn.us/rfp.htm for information on scheduling an appointment.

IMPORTANT DATES:

Proposal(s) Due: (Faxed, emailed, incomplete, or late applications will **NOT** be accepted.)

- **Multifamily and Housing Tax Credit (2004 Round 2):** The following application materials must be **received by** the MHFA by 5:00 p.m. on or before **Thursday, February 5, 2004:**
 - The Multifamily Application Form electronically submitted,
 - The Multifamily Application Form with original signature plus 3 copies, and
 - All required attachments (narratives, forms and submittals) plus three (3) copies of all attachments.

NOTE: *Applications determined to be incomplete will be returned to the applicant.*

- **Single Family:** The original application and all attachments plus two (2) copies of the application and all attachments must be **received by** the MHFA by 5:00 p.m. on or before **Thursday, February 12, 2004.**

MHFA Board Approval:

Single Family, Multifamily RFP and Housing Tax Credit funding recommendations will be made at the April 22, 2004 MHFA Board meeting.

Fund Notification:

- Notification of Single Family approved selected proposals will be posted on the MHFA website (www.mhfa.state.mn.us) after the Board meeting noted above and Loan/Grant Agreements will be mailed within 20 working days of the approval.
- Notification of Multifamily Programs and Housing Tax Credit funding awards will be posted on the MHFA website after the Board meeting noted above (www.mhfa.state.mn.us/multifamily/multifamily_home.htm). Selection letters will be mailed within 20 days of the approval.

This request for proposals is subject to all applicable federal, state, and municipal laws, rules, and regulations. MHFA reserves the right to modify or withdraw this RFP at any time and is not able to reimburse any applicant for costs incurred in the preparation or submittal of proposals.

It is the policy of the Minnesota Housing Finance Agency (MHFA) to further fair housing opportunity in all Agency programs and to administer its housing programs affirmatively, so that all Minnesotans of similar income levels have equal access to Agency programs regardless of race, color, creed, religion, national origin, sex, sexual orientation, marital status, status with regard to receipt of public assistance, disability, or family status.

State Contracts

Informal Solicitations: Informal solicitations for professional/technical (consultant) contracts valued at over \$5,000 through \$50,000, may either be published in the *State Register* or posted on the Department of Administration, Materials Management Division's (MMD) website. Interested vendors are encouraged to monitor the P/T Contract Section of the MMD website at www.mmd.admin.state.mn.us for informal solicitation announcements.

Formal Solicitations: Department of Administration procedures require that formal solicitations (announcements for contracts with an estimated value over \$50,000) for professional/technical contracts must be published in the *State Register*. Certain quasi-state agency and Minnesota State College and University institutions are exempt from these requirements.

Department of Administration

Notice of Availability of Contract for Pharmaceuticals, Vaccines, and OTC Products

The Department of Administration, on behalf of the Minnesota Multistate Contracting Alliance for Pharmacy (MMCAP) is requesting proposals for pharmaceutical and related products.

MMCAP is a voluntary group purchasing organization made up of governmental entities which contracts for pharmaceuticals. MMCAP is currently made up of 42 participating states and approximately 3500 participating facilities purchasing over \$800 million per year. For more information, go to www.mmcap.org (no password necessary).

To request a copy of the RFP, send an e-mail to: mn.multistate@state.mn.us

Or write to:

Pharmaceutical RFP Request
MMCAP
c/o Minnesota Department of Administration
50 Sherburne Avenue, Room 112
St. Paul, MN 55155

Proposals submitted in response to the Request for Proposals in this notice must be received at the address specified in the Request for Proposals no later than January 12, 2004. **Late proposals will not be considered.**

The State reserves the right to cancel this solicitation. All expenses incurred in responding to this notice are solely the responsibility of the responder.

State Contracts

Department of Administration

Minnesota Multistate Contracting Alliance for Pharmacy Request for Contract

The Minnesota Multistate Contracting Alliance for Pharmacy ("*MMCAP*" www.mmcap.org) is requesting proposals from vendors interested in supplying INFLUENZA VACCINE to MMCAP Facilities. In previous years MMCAP facilities have purchased approximately 3.5 million doses of vaccine.

A copy of the Request for Proposals is available upon written request to:

heather.pickett@state.mn.us

or

Heather Petersen Pickett
c/o Influenza Vaccine RFP
Department of Administration
50 Sherburne Avenue, #112
St. Paul, MN 55155

Proposals submitted in response to the Request for Proposals in this notice must be received at the address above no later than 2 p.m., January 12, 2004. **Late proposals will not be considered.**

This request does not obligate the State to complete the work contemplated in this notice. The State reserves the right to cancel this solicitation. All expenses incurred in responding to this notice are solely the responsibility of the responder.

Administration Department

State Register

Give Yourself the Advantage

Make BIG money on state contracts and grants. Have the *State Register* E-MAILED to you the afternoon it is published, on Friday. Be a step ahead of others, and ready with your phone calls on Monday morning. Also, receive TWO EXTRAS free-of-charge, available only to ON-LINE Subscriptions:

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Subscriptions are \$180 for an entire year (less than \$3.50 per issue), that's \$80 LESS than the cover price. Service, speed, accuracy, and on-time delivery with the *State Register* ON-LINE. FAX your credit card information: (651) 297-8260; or send in your check or credit card information to Minnesota's Bookstore, 660 Olive Street, St. Paul, MN 55155. Or, order today by calling (651) 297-8774 and charge your credit card, or **E-mail:** jessie.rahmeyer@state.mn.us for more information.

Minnesota State Colleges and Universities

Request for Proposal: To Develop A Strategic Advertising Campaign

The Minnesota State Colleges and Universities System is requesting proposals from qualified firms to develop an advertising campaign aimed at building public awareness of the educational opportunities offered by the system and the aggregate impact of their work on the state's economy and quality of life.

Specifications are available by contacting Barb Schlaefel, Minnesota State Colleges and Universities, 500 Wells Fargo Place, 30 East 7th Street, St. Paul, Minnesota 55101, (651) 296-9443 phone, or **email** barb.schlaefel@so.mnscu.edu. Sealed bids must be received by Friday, December 19, 2003, 2:00 pm, CST.

This request does not obligate Minnesota State Colleges and Universities to complete the proposed project, and the system reserves the right to cancel this solicitation if it is considered to be in its best interest. Minnesota State Colleges and Universities is an Equal Opportunity employer and educator.

Department of Natural Resources

Notice of Availability of a Contract to Sell Advertising Space in Department of Natural Resources Publications

The Minnesota Department of Natural Resources (DNR) is requesting proposals from potential contractors to sell advertising space in five DNR publications for the purpose of generating revenue to supplement printing costs. Work is proposed to start after February 1, 2004.

A Request for Proposals will be available by mail from this office through December 22, 2003. A written request (by direct mail, fax, or E-mail) is required to receive the Request for Proposal.

The Request for Proposal can be obtained from:

Sheila Gebhard
Minnesota Department of Natural Resources
500 Lafayette Road
St. Paul, MN 55155-4046
Sheila.gebhard@state.mn.us
Phone: (651) 296-6038
Fax: (651) 296-0902

Proposals submitted in response to the Request for Proposals in this advertisement must be received at the address above no later than 2:30 p.m., Central Time, December 29, 2003, late proposals will not be considered. Fax or e-mailed proposals will not be considered.

This request does not obligate the State to complete the work contemplated in this notice. The State reserves the right to cancel this solicitation. All expenses incurred in responding to this notice are solely the responsibility of the responder.

Department of Public Safety

Office of the Commissioner

Request for Proposals for the Study of Emergency Medical Services Preparedness

The Minnesota Department of Public Safety (DPS) is seeking proposals from qualified and experienced researchers in the field of emergency medical services preparedness, or a topic area very closely related, to design and conduct a study of Minnesota's emergency medical service preparedness and its relationship to the department's overall homeland security planning. The study must analyze the coordination of responses to emergencies, financial stability of the industries involved in providing pre-hospital emergency care, effect of primary service area determinations, availability in response to terroristic activity, and authority of governmental subdivisions in determining the level of care. The resulting contract from this RFP is contingent on the DPS obtaining grant funds for the study. Once grant funds are obtained and a contract with the selected researcher is fully executed the project is expected to be completed with 6 months. For this project qualified and experienced researchers must demonstrate expertise in health systems, emergency medical services, homeland security, healthcare delivery systems, or related areas.

Details are contained in a complete Request for Proposals (RFP), which may be obtained by calling or writing:

John Kerr
MN Department of Public Safety
Homeland Security Emergency Management
444 Cedar Street, Suite 223
St. Paul, Minnesota 55101
Phone # (651) 296-0481
Email Address: john.kerr@state.mn.us
Fax # (651) 296-0459

All questions concerning this RFP should be in writing, and must be submitted to the above address no later than 2:30 P.M. CST on December 15, 2003. All answers to questions will be in writing and sent to all researchers (contractors) requesting a complete RFP. Final date for submitting proposals is 2:30 P.M. CST on December 29, 2003. Late proposals will not be considered.

This RFP does not obligate the DPS to complete the proposed project, and the DPS reserves the right to cancel the solicitation if it is considered to be in the DPS' best interest. All expenses incurred in responding to this notice shall be borne by the contractor/responder.

State Contracts

Department of Transportation

Program Support Group

Notice of Potential Availability of Contracting Opportunities for a Variety of Highway Related Technical Activities (the "Consultant Pre-Qualification Program")

This document is available in alternative formats for persons with disabilities by calling Robin Valento at (651) 284-3622 for persons who are hearing or speech impaired by calling the Minnesota Relay Service at (800) 627-3529.

Mn/DOT, working in conjunction with the Consultant Reform Committee, the Minnesota Consulting Engineers Council, and the Department of Administration, has developed the Consultant Pre-qualification Program as a new method of consultant selection. The ultimate goal of the Pre-Qualification Program is to streamline the process of contracting for highway related professional/technical services. Mn/DOT anticipates that most consultant contracts for highway-related technical activities will be awarded using this method, however, Mn/DOT also reserves the right to use RFP or other selection processes for particular projects. Nothing in this solicitation requires Mn/DOT to complete or use the Consultant Pre-qualification Program.

Mn/DOT is currently requesting applications from consultants. Refer to Mn/DOT's Consultant Services web site, indicated below, to see which highway related professional/technical services are available at this time. Following the advertisement of a particular category of services, applications will be accepted on a continual basis.

All expenses incurred in responding to this notice will be borne by the responder. Response to this notice becomes public information under the Minnesota Government Data Practices.

Consultant Pre-Qualification Program information, application requirements and application forms are available on Mn/DOT's web site at <http://www.dot.state.mn.us/consult>

Send completed application material to:

Robin Valento
Pre-Qualification Administrator
Minnesota Department of Transportation
Consultant Services
395 John Ireland Boulevard, Seventh Floor North, Mail Stop 680
St. Paul, MN 55155

Note: DUE DATE: APPLICATION MATERIAL WILL BE ACCEPTED ON A CONTINUAL BASIS.

Department of Transportation

Engineering Services Division

Notice Concerning Professional/Technical Contract Opportunities

NOTICE TO ALL: The Minnesota Department of Transportation (Mn/DOT) is now placing additional public notices for professional/technical contract opportunities on Mn/DOT's Consultant Services website at: www.dot.state.mn.us/consult.

New public notices may be added to the website on a daily basis and be available for the time period as indicated within the public notice.

Non-State Contracts & Grants

The *State Register* also serves as a central marketplace for contracts let out on bid by the public sector. The *State Register* meets state and federal guidelines for statewide circulation of public notices. Any tax-supported institution or government jurisdiction may advertise contracts and requests for proposals from the private sector. It is recommended that contracts and RFPs include the following: 1) name of contact person; 2) institution name, address, and telephone number; 3) brief description of project and tasks; 4) cost estimate; and 5) final submission date of completed contract proposal. Allow at least three weeks from publication date (four weeks from date article is submitted for publication). Surveys show that subscribers are interested in hearing about contracts for estimates as low as \$1,000. Contact editor for further details.

City of Norwood Young America

Notice of Request for Proposals (RFP) for Engineering Services for Tacoma Avenue / Railroad Street Reconstruction

NOTICE IS HEREBY GIVEN that the City of Norwood Young America requests proposals to provide Engineering Services for improvements along Railroad Street and Tacoma Avenue in Norwood Young America, Minnesota. The project involves the reconstruction and realignment of approximately 1100 feet of Railroad Street and the reconstruction of approximately 400 feet of Tacoma Avenue. The project will include, but not be limited to, the preparation of the Final Design Plan & Specifications, Environmental Documentation, Right-of-Way Parcel Sketches, Wetland Mitigation Plan, Utility Coordination, and Project Management. The anticipated schedule for this project is as follows:

Issue Request for Proposals:	December 8, 2003
Proposals Due:	January 6, 2004
Award Contract:	January 13, 2004

All firms interested in being considered for this project and desiring to receive an RFP package free of charge are invited to submit a written request for the RFP to:

Kreg Schmidt
Bolten & Menk, Inc.
1107 Hazeltine Blvd, MD 52
Chaska, MN 55318
Phone No.: (952) 448-8838
Fax No.: (952) 448-8805
kregsc@bolten-menk.com

NOTE: The RFP is not available electronic form.

University of Minnesota

Notice of Bid Information Service (BIS) Available for All Potential Vendors

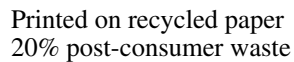
The University of Minnesota offers 24 hour/day, 7 day/week access to all Request for Bids/Proposals through its web based Bid Information Services (BIS). Subscriptions to BIS are \$75/year. Visit our web site at bidinfo.umn.edu or call the BIS Coordinator at (612) 625-5534.

Requests for Bids/Proposals are available to the public at no charge each business day from 8:00 a.m. to 4:30 p.m. in the Purchasing Services lobby, Suite 560, 1300 S. 2nd Street, Mpls., MN 55454.



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