

PA Core Instructional Framework

ELA {Information taken and adapted from SAS Portal @ <http://www.pdesas.org/CMap>}

To build a foundation for college and career readiness, students must read widely and deeply from a range of high-quality, increasingly challenging literary and information texts. Students build literary and culture knowledge as they engage in extensive reading of stories, dramas, poems, and myths. Students read a broad range of informational texts that contribute to their understanding of specific content while providing them with a background to become better readers in all content areas.

Students are expected to read grade-appropriate complex text independently within their grade span. The cognitive demands of students increase throughout these grade levels, moving from describing text elements towards critically examining and analyzing literary and informational content within and among multiple texts.

Students need to learn to use writing as a way of offering and supporting opinions, demonstrating understanding of the subjects they are studying, and conveying real and imagined experiences and events. They understand that writing is a way to communicate to multiple audiences and adapt the form and content of their writing to accomplish a specific purpose. Students must devote a significant time and effort to writing, producing numerous pieces over short and extended timeframes throughout the school year.

During the 3-5 grade span, students learn strategies for establishing credibility such as supporting opinions with evidence and citing textual evidence to support their answers and ideas. Students write in all content areas and move beyond participating in research to conducting research. They increasingly use technology and multi-media sources to research, produce, and publish their writing.



GRADE 3

In third grade, students select and combine skills to read fluently with meaning and purpose. They apply comprehension and vocabulary strategies to informational text and a wider variety of literary genres including poetry. Students demonstrate comprehension by participating in discussions, writing responses, and using key details and evidence from text to support their thinking. They explore author point of view and also begin to infer meaning from texts. They read for pleasure and choose books based on personal preference, topic, or author.

Students are writing longer texts, especially narratives. They embed their ideas in time and place and develop characters through detail and dialogue. Students organize around a central idea and elaborate using complete sentences. Their writing is often divided into sections through paragraphing or book parts (e.g., table of contents, chapters) and follows logical sequencing. Information gathering as part of the planning process is common, and students are becoming more selective about vocabulary, especially when writing informational texts. They conduct short research using a variety of print and digital sources. They listen to other's writing, offer feedback, and begin to consider suggestions from others about their own writing.

GRADE 4

In fourth grade, students read skillfully with meaning and purpose using appropriate comprehension and vocabulary strategies. They examine multiple points of view and the structural elements of text. Emphasis is on drawing evidence from text as they read, discuss, reflect, and respond to informational text and a wide variety of literary genres with an inclusion of texts from other cultures. They explore the theme of texts and begin to move from integrating information from one to several texts. Students read for pleasure and continue to choose books based on personal preference, topic, theme, or author.

Students write for a range of purposes, including describing, telling a story, and explaining. They produce writing that goes beyond formulaic compositions to more self-directed pieces that include domain-specific vocabulary, precise language, and using transition words to convey meaning. Because they are aware of the interdependence of the topic, audience, purpose, and form, they select and sometimes adapt basic forms to meet specific requirements. Their understanding and use of figurative language introduces imagery to their writing. Informational writing reflects understanding of specific purpose, often requiring gathering, paraphrasing, and synthesizing facts and details from a number of resources to express and justify an opinion. There is an increased use of technology, including the Internet. Students are more aware of the conventions of writing as they reflect on their strengths and weaknesses and strive to improve.

GRADE 5

In fifth grade, students broaden and deepen their understanding of informational and literary text through comparing and contrasting. Students reflect on their skills and adjust their comprehension and vocabulary strategies to become better readers. They use textual evidence and quote accurately to support their analyses and interpretations. Using evidence from multiple texts, students discuss, reflect, and respond to a wide variety of literary genres and informational text. Students read for pleasure, choosing books based on personal preference, topic, genre, theme, or author.

Students develop a strong personal voice in their writing beginning in fifth grade. This is demonstrated by the way they sometimes inject humor into their narratives and support their opinions with credible reasons. Students use precise, specialized vocabulary appropriately in content-area writing. Students develop their writing craft with an emphasis on pacing and an awareness of style. They experiment with sentence length and complex sentence structures and vary leads and endings. Students are able to summarize and synthesize important works to include in their compositions.

Academic Standards for English Language Arts

*Grades Pre K-5
March 1, 2014*



Pennsylvania Department of Education

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

INTRODUCTION

These standards describe what students should know and be able to do with the English language, prekindergarten through Grade 12. The standards provide the targets for instruction and student learning essential for success in all academic areas, not just language arts classrooms. Although the **standards are not a curriculum** or a prescribed series of activities, school entities will use them to develop a local school curriculum that will meet local students’ needs.

Five standard categories are designed to provide a Pre K–12 continuum to reflect the demands of a college- and career-ready graduate:

- Standard 1: Foundational Skills begin at prekindergarten and focus on early childhood, with some standards reflected through Grade 5. These foundational skills are a necessary and important component of an effective, comprehensive reading program designed to develop proficient readers with the capacity to comprehend text, both literary and informational, across disciplines.
- Standard 2: Reading Informational Text enables students to read, understand, and respond to informational text.
- Standard 3: Reading Literature enables students to read, understand, and respond to works of literature.
- Standard 4: Writing develops the skills of informational, argumentative, and narrative writing, as well as the ability to engage in evidence-based analysis of text and research.
- Standard 5: Speaking and Listening focuses students on communication skills that enable critical listening and effective presentation of ideas.

With a focus on college and career readiness, the instructional shifts are evident throughout the PA Core Standards:

- Balancing the reading of informational and literary texts so that students can access nonfiction and authentic texts, as well as literature
- Focusing on close and careful reading of text so that students are learning from the text
- Building a staircase of complexity (i.e., each grade level requires a “step” of growth on the “staircase”) so that students graduate college or career ready
- Supporting writing from sources (i.e., using evidence from text to inform or make an argument) so that students use evidence and respond to the ideas, events, facts, and arguments presented in the texts they read
- Stressing an academically focused vocabulary so that students can access more complex texts

The English Language Arts Standards also provide parents and community members with information about what students should know and be able to do as they progress through the educational program and at graduation. With a clearly defined target provided by the standards, parents, students, educators, and community members become partners in learning. Each standard implies an end-of-year goal—with the understanding that exceeding the standard is an even more desirable end goal.

Note: The Aligned Eligible Content is displayed with the standard statement. On the Standard Aligned System portal, it is a live link.

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

TABLE OF CONTENTS

Foundational Skills (Pre K–5)..... 1.1

Students gain a working knowledge of concepts of print, alphabetic principle, and other basic conventions. These foundational skills are not an end in and of themselves; rather, students apply them as effective readers.

- Book Handling
- Print Concepts
- Phonological Awareness
- Phonics and Word Recognition
- Fluency

Reading Informational Text..... 1.2

Students read, understand, and respond to informational text—with an emphasis on comprehension, vocabulary acquisition, and making connections among ideas and between texts with a focus on textual evidence.

- Key Ideas and Details
- Craft and Structure
- Integration of Knowledge and Ideas
- Vocabulary Acquisition and Use
- Range of Reading

Reading Literature..... 1.3

Students read and respond to works of literature—with emphasis on comprehension, vocabulary acquisition, and making connections among ideas and between texts with focus on textual evidence.

- Key Ideas and Details
- Craft and Structure
- Integration of Knowledge and Ideas
- Vocabulary Acquisition and Use
- Range of Reading

Writing..... 1.4

Students write for different purposes and audiences. Students write clear and focused text to convey a well-defined perspective and appropriate content.

- Informative/Explanatory
- Opinion/Argumentative
- Narrative
- Response to Literature
- Production and Distribution of Writing
- Technology and Publication
- Conducting Research
- Credibility, Reliability, and Validity of Sources
- Range of Writing

Speaking and Listening 1.5

Students present appropriately in formal speaking situations, listen critically, and respond intelligently as individuals or in group discussions.

- Comprehension and Collaboration
- Presentation of Knowledge and Ideas
- Integration of Knowledge and Ideas
- Conventions of Standard English

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.1 Foundational Skills Students gain a working knowledge of concepts of print, alphabetic principle, and other basic conventions.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Book Handling	CC.1.1.PK.A Practice appropriate book handling skills.	CC.1.1.K.A Utilize book handling skills.	Intentionally Blank	Intentionally Blank	Intentionally Blank	Intentionally Blank	Intentionally Blank
Print Concepts	CC.1.1.PK.B Identify basic features of print. <ul style="list-style-type: none"> Differentiate between numbers and letters and letters and words. Recognize and name some uppercase and lowercase letters of the alphabet. 	CC.1.1.K.B Demonstrate understanding of the organization and basic features of print. <ul style="list-style-type: none"> Follow words left to right, top to bottom, and page by page. Recognize that spoken words are represented in written language by specific sequences of letters. Understand that words are separated by spaces in print. Recognize and name all uppercase and lowercase letters of the alphabet. 	CC.1.1.1.B Demonstrate understanding of the organization and basic features of print. <ul style="list-style-type: none"> Recognize the distinguishing features of a sentence. 	Intentionally Blank	Intentionally Blank	Intentionally Blank	Intentionally Blank

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.1 Foundational Skills Students gain a working knowledge of concepts of print, alphabetic principle, and other basic conventions.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Phonological Awareness	CC.1.1.PK.C Demonstrate understanding of spoken words, syllables, and sounds (phonemes). <ul style="list-style-type: none"> Recognize rhyming words and when two or more words begin with the same sound (alliteration). Count syllables in spoken words. Segment single-syllable spoken words. Isolate and pronounce initial sounds. 	CC.1.1.K.C Demonstrate understanding of spoken words, syllables, and sounds (phonemes). <ul style="list-style-type: none"> Recognize and produce rhyming words. Count, pronounce, blend, and segment syllables in spoken words. Blend and segment onsets and rimes of single-syllable spoken words. Isolate and pronounce the initial, medial vowel, and final sound (phonemes) in the three-phoneme (CVC) words. 	CC.1.1.1.C Demonstrate understanding of spoken words, syllables, and sounds (phonemes). <ul style="list-style-type: none"> Distinguish long from short vowel sounds in spoken single-syllable words. Count, pronounce, blend, and segment syllables in spoken and written words. Orally produce single-syllable words, including consonant blends and digraphs. Isolate and pronounce initial, medial vowel, and final sounds (phonemes) in spoken single-syllable words. Add or substitute individual sounds (phonemes) in one-syllable words to make new words. 	Intentionally Blank	Intentionally Blank	Intentionally Blank	Intentionally Blank

PENNSYLVANIA CORE STANDARDS
English Language Arts
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1.1 Foundational Skills Students gain a working knowledge of concepts of print, alphabetic principle, and other basic conventions.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Phonics and Word Recognition	CC.1.1.PK.D Develop beginning phonics and word skills. <ul style="list-style-type: none"> Associate some letters with their names and sounds. Identify familiar words and environmental print. 	CC.1.1.K.D Know and apply grade-level phonics and word analysis skills in decoding words. <ul style="list-style-type: none"> Demonstrate basic knowledge of one-to-one letter-sound correspondence. Associate the long and short sounds with common spellings for the five major vowels. Read grade-level high-frequency sight words with automaticity. Distinguish between similarly spelled words by identifying the sounds of the letters that differ. 	CC.1.1.1.D Know and apply grade-level phonics and word analysis skills in decoding words. <ul style="list-style-type: none"> Identify common consonant digraphs, final-e, and common vowel teams. Decode one- and two-syllable words with common patterns. Read grade-level words with inflectional endings. Read grade-appropriate irregularly spelled words. 	CC.1.1.2.D Know and apply grade-level phonics and word analysis skills in decoding words. <ul style="list-style-type: none"> Distinguish long and short vowels when reading regularly spelled one-syllable words. Decode two-syllable words with long vowels and words with common prefixes and suffixes. Read grade-level high-frequency sight words and words with inconsistent but common spelling-sound correspondences. Read grade-appropriate irregularly spelled words. 	CC.1.1.3.D Know and apply grade-level phonics and word analysis skills in decoding words. <ul style="list-style-type: none"> Identify and know the meaning of the most common prefixes and derivational suffixes. Decode words with common Latin suffixes. Decode multisyllable words. Read grade-appropriate irregularly spelled words. 	CC.1.1.4.D Know and apply grade-level phonics and word analysis skills in decoding words. <ul style="list-style-type: none"> Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology to read accurately unfamiliar multisyllabic words. 	CC.1.1.5.D Know and apply grade-level phonics and word analysis skills in decoding words. <ul style="list-style-type: none"> Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology to read accurately unfamiliar multisyllabic words.

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.1 Foundational Skills Students gain a working knowledge of concepts of print, alphabetic principle, and other basic conventions.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Fluency	Intentionally Blank	CC.1.1.K.E Read emergent-reader text with purpose and understanding.	CC.1.1.1.E Read with accuracy and fluency to support comprehension. <ul style="list-style-type: none"> • Read on-level text with purpose and understanding. • Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. • Use context to confirm or self-correct word recognition and understanding, rereading as necessary. 	CC.1.1.2.E Read with accuracy and fluency to support comprehension. <ul style="list-style-type: none"> • Read on-level text with purpose and understanding. • Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. • Use context to confirm or self-correct word recognition and understanding, rereading as necessary. 	CC.1.1.3.E Read with accuracy and fluency to support comprehension. <ul style="list-style-type: none"> • Read on-level text with purpose and understanding. • Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. • Use context to confirm or self-correct word recognition and understanding, rereading as necessary. 	CC.1.1.4.E Read with accuracy and fluency to support comprehension. <ul style="list-style-type: none"> • Read on-level text with purpose and understanding. • Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. • Use context to confirm or self-correct word recognition and understanding, rereading as necessary. 	CC.1.1.5.E Read with accuracy and fluency to support comprehension. <ul style="list-style-type: none"> • Read on-level text with purpose and understanding. • Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. • Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.2 Reading Informational Text Students read, understand, and respond to informational text—with an emphasis on comprehension, vocabulary acquisition, and making connections among ideas and between texts with a focus on textual evidence.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Key Ideas and Details Main Idea	CC.1.2.PK.A With prompting and support, retell key details of text that support a provided main idea.	CC.1.2.K.A With prompting and support, identify the main idea and retell key details of text.	CC.1.2.1.A Identify the main idea and retell key details of text.	CC.1.2.2.A Identify the main idea of a multiparagraph text as well as the focus of specific paragraphs within the text.	CC.1.2.3.A Determine the main idea of a text; recount the key details and explain how they support the main idea. E03.B-K.1.1.2	CC.1.2.4.A Determine the main idea of a text and explain how it is supported by key details; summarize the text. E04.B-K.1.1.2	CC.1.2.5.A Determine two or more main ideas in a text and explain how they are supported by key details; summarize the text. E05.B-K.1.1.2
Key Ideas and Details Text Analysis	CC.1.2.PK.B Answer questions about a text.	CC.1.2.K.B With prompting and support, answer questions about key details in a text.	CC.1.2.1.B Ask and answer questions about key details in a text.	CC.1.2.2.B Ask and answer questions such as who, what, where, when, why, and how to demonstrate understanding of key details in a text.	CC.1.2.3.B Ask and answer questions about the text and make inferences from text; refer to text to support responses. E03.B-K.1.1.1	CC.1.2.4.B Refer to details and examples in text to support what the text says explicitly and make inferences. E04.B-K.1.1.1	CC.1.2.5.B Cite textual evidence by quoting accurately from the text to explain what the text says explicitly and make inferences. E05.B-K.1.1.1
Key Ideas and Details Text Analysis	CC.1.2.PK.C With prompting and support, make connections between information in a text and personal experiences.	CC.1.2.K.C With prompting and support, make a connection between two individuals, events, ideas, or pieces of information in a text.	CC.1.2.1.C Describe the connection between two individuals, events, ideas, or pieces of information in a text.	CC.1.2.2.C Describe the connection between a series of events, concepts, or steps in a procedure within a text.	CC.1.2.3.C Explain how a series of events, concepts, or steps in a procedure is connected within a text, using language that pertains to time, sequence, and cause/effect. E03.B-K.1.1.3	CC.1.2.4.C Explain events, procedures, ideas, or concepts in a text, including what happened and why, based on specific information in the text. E04.B-K.1.1.3	CC.1.2.5.C Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a text based on specific information in the text. E05.B-K.1.1.3

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.2 Reading Informational Text Students read, understand, and respond to informational text—with an emphasis on comprehension, vocabulary acquisition, and making connections among ideas and between texts with a focus on textual evidence.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Craft and Structure Point of View	Intentionally Blank	Intentionally Blank	Intentionally Blank	Intentionally Blank	CC.1.2.3.D Explain the point of view of the author. E03.B-C.2.1.1	CC.1.2.4.D Compare and contrast an event or topic told from two different points of view. E04.B-C.2.1.1	CC.1.2.5.D Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent. E05.B-C.2.1.1
Craft and Structure Text Structure	CC.1.2.PK.E Identify the front cover, back cover, and title page of a book.	CC.1.2.K.E Identify parts of a book (title, author) and parts of a text (beginning, end, details).	CC.1.2.1.E Use various text features and search tools to locate key facts or information in a text.	CC.1.2.2.E Use various text features and search tools to locate key facts or information in a text efficiently.	CC.1.2.3.E Use text features and search tools to locate and interpret information. E03.B-C.2.1.2	CC.1.2.4.E Use text structure to interpret information (e.g., chronology, comparison, cause/effect, problem/solution). E04.B-C.2.1.2	CC.1.2.5.E Use text structure, in and among texts, to interpret information (e.g., chronology, comparison, cause/effect, problem/solution). E05.B-C.2.1.2
Craft and Structure Vocabulary	CC.1.2.PK.F With prompting and support, answer questions about unfamiliar words read aloud from a text.	CC.1.2.K.F With prompting and support, ask and answer questions about unknown words in a text.	CC.1.2.1.F Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.	CC.1.2.2.F Determine the meaning of words and phrases as they are used in grade-level text including multiple-meaning words.	CC.1.2.3.F Determine the meaning of words and phrases as they are used in grade-level text, distinguishing literal from nonliteral meaning as well as shades of meaning among related words. E03.B-V.4.1.1 E03.B-V.4.1.2	CC.1.2.4.F Determine the meaning of words and phrases as they are used in grade-level text, including figurative language. E04.B-V.4.1.1 E04.B-V.4.1.2	CC.1.2.5.F Determine the meaning of words and phrases as they are used in grade-level text, including interpretation of figurative language. E05.B-V.4.1.1 E05.B-V.4.1.2

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.2 Reading Informational Text Students read, understand, and respond to informational text—with an emphasis on comprehension, vocabulary acquisition, and making connections among ideas and between texts with a focus on textual evidence.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Integration of Knowledge and Ideas Diverse Media	CC.1.2.PK.G With prompting and support, answer questions to connect illustrations to the written word.	CC.1.2.K.G Answer questions to describe the relationship between illustrations and the text in which they appear.	CC.1.2.1.G Use the illustrations and details in a text to describe its key ideas.	CC.1.2.2.G Explain how graphic representations contribute to and clarify a text.	CC.1.2.3.G Use information gained from text features to demonstrate understanding of a text. E03.B-C.3.1.3	CC.1.2.4.G Interpret various presentations of information within a text or digital source and explain how the information contributes to an understanding of text in which it appears. E04.B-C.3.1.3	CC.1.2.5.G Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently. E05.B-C.3.1.3
Integration of Knowledge and Ideas Evaluating Arguments	Intentionally Blank	CC.1.2.K.H With prompting and support, identify the reasons an author gives to support points in a text.	CC.1.2.1.H Identify the reasons an author gives to support points in a text.	CC.1.2.2.H Describe how reasons support specific points the author makes in a text.	CC.1.2.3.H Describe how an author connects sentences and paragraphs in a text to support particular points. E03.B-C.3.1.1	CC.1.2.4.H Explain how an author uses reasons and evidence to support particular points in a text. E04.B-C.3.1.1	CC.1.2.5.H Determine how an author supports particular points in a text through reasons and evidence. E05.B-C.3.1.1

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English Language Arts
Grade Pre K–5

1.2 Reading Informational Text Students read, understand, and respond to informational text—with an emphasis on comprehension, vocabulary acquisition, and making connections among ideas and between texts with a focus on textual evidence.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Integration of Knowledge and Ideas Analysis Across Texts	CC.1.2.PK.I With prompting and support, identify basic similarities and differences between two texts read aloud on the same topic.	CC.1.2.K.I With prompting and support, identify basic similarities and differences between two texts (read or read aloud) on the same topic.	CC.1.2.1.I Identify basic similarities in and differences between two texts on the same topic.	CC.1.2.2.I Compare and contrast the most important points presented by two texts on the same topic.	CC.1.2.3.I Compare and contrast the most important points and key details presented in two texts on the same topic. E03.B-C.3.1.2	CC.1.2.4.I Integrate information from two texts on the same topic to demonstrate understanding of that topic. E04.B-C.3.1.2	CC.1.2.5.I Integrate information from several texts on the same topic to demonstrate understanding of that topic. E05.B-C.3.1.2
Vocabulary Acquisition and Use	CC.1.2.PK.J Use new vocabulary and phrases acquired in conversations and being read to.	CC.1.2.K.J Use words and phrases acquired through conversations, reading, and being read to, and responding to texts.	CC.1.2.1.J Use words and phrases acquired through conversations, reading, and being read to, and responding to texts, including words that signal connections and relationships between the words and phrases.	CC.1.2.2.J Acquire and use grade-appropriate conversational, general academic, and domain-specific words and phrases.	CC.1.2.3.J Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships. E03.B-V.4.1.1 E03.B-V.4.1.2	CC.1.2.4.J Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and that are basic to a particular topic. E04.B-V.4.1.1 E04.B-V.4.1.2.	CC.1.2.5.J Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships. E05.B-V.4.1.1 E05.B-V.4.1.2.

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.2 Reading Informational Text Students read, understand, and respond to informational text—with an emphasis on comprehension, vocabulary acquisition, and making connections among ideas and between texts with a focus on textual evidence.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Vocabulary Acquisition and Use	CC.1.2.PK.K With prompting and support, clarify unknown words or phrases read aloud.	CC.1.2.K.K Determine or clarify the meaning of unknown or multiple-meaning words and phrases based upon grade-level reading and content.	CC.1.2.1.K Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade-level reading and content.	CC.1.2.2.K Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade-level reading and content, choosing from a range of strategies and tools.	CC.1.2.3.K Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade-level reading and content, choosing flexibly from a range of strategies and tools. E03.B-V.4.1.1	CC.1.2.4.K Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade-level reading and content, choosing flexibly from a range of strategies and tools. E04.B-V.4.1.1	CC.1.2.5.K Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade-level reading and content, choosing flexibly from a range of strategies and tools. E05.B-V.4.1.1
Range of Reading	CC.1.2.PK.L With prompting and support, actively engage in group reading activities with purpose and understanding.	CC.1.2.K.L Actively engage in group reading activities with purpose and understanding.	CC.1.2.1.L Read and comprehend literary nonfiction and informational text on grade level, reading independently and proficiently.	CC.1.2.2.L Read and comprehend literary nonfiction and informational text on grade level, reading independently and proficiently.	CC.1.2.3.L Read and comprehend literary nonfiction and informational text on grade level, reading independently and proficiently.	CC.1.2.4.L Read and comprehend literary nonfiction and informational text on grade level, reading independently and proficiently.	CC.1.2.5.L Read and comprehend literary nonfiction and informational text on grade level, reading independently and proficiently.

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.3 Reading Literature Students read and respond to works of literature—with emphasis on comprehension, vocabulary acquisition, and making connections among ideas and between texts with focus on textual evidence.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Key Ideas and Details Theme	CC.1.3.PK.A With prompting and support, retell a familiar story in sequence with picture support.	CC.1.3.K.A With prompting and support, retell familiar stories including key details.	CC.1.3.1.A Retell stories, including key details, and demonstrate understanding of their central message or lesson.	CC.1.3.2.A Recount stories and determine their central message, lesson, or moral.	CC.1.3.3.A Determine the central message, lesson, or moral in literary text; explain how it is conveyed in text. E03.A-K.1.1.2	CC.1.3.4.A Determine a theme of a text from details in the text; summarize the text. E04.A-K.1.1.2	CC.1.3.5.A Determine a theme of a text from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text. E05.A-K.1.1.2
Key Ideas and Details Text Analysis	CC.1.3.PK.B Answer questions about a particular story (who, what, how, when, and where).	CC.1.3.K.B Answer questions about key details in a text.	CC.1.3.1.B Ask and answer questions about key details in a text.	CC.1.3.2.B Ask and answer questions such as who, what, where, when, why, and how to demonstrate understanding of key details in a text.	CC.1.3.3.B Ask and answer questions about the text and make inferences from text, referring to text to support responses. E03.A-K.1.1.1	CC.1.3.4.B Cite relevant details from text to support what the text says explicitly and make inferences. E04.A-K.1.1.1	CC.1.3.5.B Cite textual evidence by quoting accurately from the text to explain what the text says explicitly and make inferences. E05.A-K.1.1.1
Key Ideas and Details Literary Elements	CC.1.3.PK.C With prompting and support, answer questions to identify characters, settings, and major events in a story.	CC.1.3.K.C With prompting and support, identify characters, settings, and major events in a story.	CC.1.3.1.C Describe characters, settings, and major events in a story, using key details.	CC.1.3.2.C Describe how characters in a story respond to major events and challenges.	CC.1.3.3.C Describe characters in a story and explain how their actions contribute to the sequence of events. E03.A-K.1.1.3	CC.1.3.4.C Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text. E04.A-K.1.1.3	CC.1.3.5.C Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text. E05.A-K.1.1.3

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.3 Reading Literature Students read and respond to works of literature—with emphasis on comprehension, vocabulary acquisition, and making connections among ideas and between texts with focus on textual evidence.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Craft and Structure Point of View	CC.1.3.PK.D With prompting and support, name the author and illustrator of a story.	CC.1.3.K.D Name the author and illustrator of a story and define the role of each in telling the story.	CC.1.3.1.D Identify who is telling the story at various points in a text.	CC.1.3.2.D Acknowledge differences in the points of views of characters, including by speaking in a different voice for each character when reading dialogue aloud.	CC.1.3.3.D Explain the point of view of the author. E03.A-C.2.1.1	CC.1.3.4.D Compare and contrast an event or topic told from two different points of view. E04.A-C.2.1.1	CC.1.3.5.D Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent. E05.A-C.2.1.1
Craft and Structure Text Structure	CC.1.3.PK.E With prompting and support, recognize common types of text.	CC.1.3.K.E Recognize common types of text.	CC.1.3.1.E Explain major differences between books that tell stories and books that give information, drawing on a wide reading or range of text types.	CC.1.3.2.E Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.	CC.1.3.3.E Refer to parts of texts when writing or speaking about a text using such terms as chapter, scene, and stanza and describe how each successive part builds upon earlier sections.	CC.1.3.4.E Explain major differences between poems, drama, and prose and refer to the structural elements of each when writing or speaking about a text.	CC.1.3.5.E Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.
Craft and Structure Vocabulary	CC.1.3.PK.F Answer questions about unfamiliar words read aloud from a story.	CC.1.3.K.F Ask and answer questions about unknown words in a text.	CC.1.3.1.F Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.	CC.1.3.2.F Describe how words and phrases supply rhythm and meaning in a story, poem, or song.	CC.1.3.3.F Determine the meaning of words and phrases as they are used in grade-level text, distinguishing literal from nonliteral meaning as well as shades of meaning among related words. E03.A-V.4.1.1 E03.A-V.4.1.2	CC.1.3.4.F Determine the meaning of words and phrases as they are used in grade-level text, including figurative language. E04.A-V.4.1.1 E04.A-V.4.1.2	CC.1.3.5.F Determine the meaning of words and phrases as they are used in grade-level text, including interpretation of figurative language. E05.A-V.4.1.1 E05.A-V.4.1.2

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.3 Reading Literature Students read and respond to works of literature—with emphasis on comprehension, vocabulary acquisition, and making connections among ideas and between texts with focus on textual evidence.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Integration of Knowledge and Ideas Sources of Information	CC.1.3.PK.G Describe pictures in books using details.	CC.1.3.K.G Make connections between the illustrations and the text in a story (read or read aloud).	CC.1.3.1.G Use illustrations and details in a story to describe characters, setting, or events.	CC.1.3.2.G Use information from illustrations and words, in print or digital text, to demonstrate understanding of characters, setting, or plot.	CC.1.3.3.G Explain how specific aspects of a text’s illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting).	CC.1.3.4.G Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text.	CC.1.3.5.G Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem).
Integration of Knowledge and Ideas Text Analysis	CC.1.3.PK.H Answer questions to compare and contrast the adventures and experiences of characters in familiar stories.	CC.1.3.K.H Compare and contrast the adventures and experiences of characters in familiar stories.	CC.1.3.1.H Compare and contrast the adventures and experiences of characters in stories.	CC.1.3.2.H Compare and contrast two or more versions of the same story by different authors or from different cultures.	CC.1.3.3.H Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters. E03.A-C.3.1.1	CC.1.3.4.H Compare and contrast similar themes, topics, and patterns of events in literature, including texts from different cultures. E04.A-C.3.1.1	CC.1.3.5.H Compare and contrast texts in the same genre on their approaches to similar themes and topics as well as additional literary elements. E05.A-C.3.1.1

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.3 Reading Literature Students read and respond to works of literature—with emphasis on comprehension, vocabulary acquisition, and making connections among ideas and between texts with focus on textual evidence.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Vocabulary Acquisition and Use Strategies	CC.1.3.PK.I With prompting and support, clarify unknown words or phrases read aloud.	CC.1.3.K.I Determine or clarify the meaning of unknown or multiple-meaning words and phrases based upon grade-level reading and content.	CC.1.3.1.I Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade-level reading and content.	CC.1.3.2.I Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade-level reading and content, choosing from a range of strategies and tools.	CC.1.3.3.I Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade-level reading and content, choosing flexibly from a range of strategies and tools. E03.A-V.4.1.1	CC.1.3.4.I Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade-level reading and content, choosing flexibly from a range of strategies and tools. E04.A-V.4.1.1	CC.1.3.5.I Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade-level reading and content, choosing flexibly from a range of strategies and tools. E05.A-V.4.1.1
Vocabulary Acquisition and Use	CC.1.3.PK.J Use new vocabulary and phrases acquired in conversations and being read to.	CC.1.3.K.J Use words and phrases acquired through conversations, reading, and being read to, and responding to texts.	CC.1.3.1.J Use words and phrases acquired through conversations, reading, and being read to, and responding to texts, including words that signal connections and relationships between the words and phrases.	CC.1.3.2.J Acquire and use grade-appropriate conversational, general academic, and domain-specific words and phrases.	CC.1.3.3.J Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships. E03.A-V.4.1.1 E03.A-V.4.1.2	CC.1.3.4.J Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and that are basic to a particular topic. E04.A-V.4.1.1 E04.A-V.4.1.2.	CC.1.3.5.J Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships. E05.A-V.4.1.1 E05.A-V.4.1.2.
Range of Reading	CC.1.3.PK.K With prompting and support, actively engage in group reading activities with purpose and understanding.	CC.1.3.K.K Actively engage in group reading activities with purpose and understanding.	CC.1.3.1.K Read and comprehend literature on grade level, reading independently and proficiently.	CC.1.3.2.K Read and comprehend literature on grade level, reading independently and proficiently.	CC.1.3.3.K Read and comprehend literary fiction on grade level, reading independently and proficiently.	CC.1.3.4.K Read and comprehend literary fiction on grade level, reading independently and proficiently.	CC.1.3.5.K Read and comprehend literary fiction on grade level, reading independently and proficiently.

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.4 Writing Students write for different purposes and audiences. Students write clear and focused text to convey a well-defined perspective and appropriate content.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Informative/Explanatory	CC.1.4.PK.A Draw/dictate to compose informative/explanatory texts examining a topic.	CC.1.4.K.A Use a combination of drawing, dictating, and writing to compose informative/explanatory texts.	CC.1.4.1.A Write informative/explanatory texts to examine a topic and convey ideas and information.	CC.1.4.2.A Write informative/explanatory texts to examine a topic and convey ideas and information clearly.	CC.1.4.3.A Write informative/explanatory texts to examine a topic and convey ideas and information clearly.	CC.1.4.4.A Write informative/explanatory texts to examine a topic and convey ideas and information clearly.	CC.1.4.5.A Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
Informative/Explanatory Focus	CC.1.4.PK.B With prompting and support, draw/dictate about one specific topic.	CC.1.4.K.B Use a combination of drawing, dictating, and writing to focus on one specific topic.	CC.1.4.1.B Identify and write about one specific topic.	CC.1.4.2.B Identify and introduce the topic.	CC.1.4.3.B Identify and introduce the topic. E03.C.1.2.1	CC.1.4.4.B Identify and introduce the topic clearly. E04.C.1.2.1 E04.E.1.1.1	CC.1.4.5.B Identify and introduce the topic clearly. E05.C.1.2.1 E05.E.1.1.1
Informative/Explanatory Content	CC.1.4.PK.C With prompting and support, generate ideas to convey information.	CC.1.4.K.C With prompting and support, generate ideas and details to convey information that relates to the chosen topic.	CC.1.4.1.C Develop the topic with two or more facts.	CC.1.4.2.C Develop the topic with facts and/or definitions.	CC.1.4.3.C Develop the topic with facts, definitions, details, and illustrations, as appropriate. E03C.1.2.2	CC.1.4.4.C Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic; include illustrations and multimedia when useful to aiding comprehension. E04C.1.2.2 E04E.1.1.2	CC.1.4.5.C Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic; include illustrations and multimedia when useful to aiding comprehension. E05C.1.2.2 E05E.1.1.2

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.4 Writing Students write for different purposes and audiences. Students write clear and focused text to convey a well-defined perspective and appropriate content.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Informative/Explanatory Organization	CC.1.4.PK.D With prompting and support, make logical connections between drawing and dictation.	CC.1.4.K.D Make logical connections between drawing and dictation/writing.	CC.1.4.1.D Group information and provide some sense of closure.	CC.1.4.2.D Group information and provide a concluding statement or section.	CC.1.4.3.D Create an organizational structure that includes information grouped and connected logically with a concluding statement or section. E03.C.1.2.1 E03.C.1.2.3 E03.C.1.2.4	CC.1.4.4.D Group related information in paragraphs and sections, linking ideas within categories of information using words and phrases; provide a concluding statement or section; include formatting when useful to aiding comprehension. E04.C.1.2.1 E04.C.1.2.3 E04.C.1.2.5 E04.E.1.1.1 E04.E.1.1.3 E04.E.1.1.5	CC.1.4.5.D Group related information logically linking ideas within and across categories of information using words, phrases, and clauses; provide a concluding statement or section; include formatting when useful to aiding comprehension. E05.C.1.2.1 E05.C.1.2.3 E05.C.1.2.6 E05.E.1.1.1 E05.E.1.1.3 E05.E.1.1.6

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.4 Writing Students write for different purposes and audiences. Students write clear and focused text to convey a well-defined perspective and appropriate content.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Informative/Explanatory Style	Intentionally Blank	CC.1.4.K.E With prompting and support, illustrate using details and dictate/write using descriptive words.	CC.1.4.1.E Choose words and phrases for effect.	CC.1.4.2.E Choose words and phrases for effect.	CC.1.4.3.E Choose words and phrases for effect. E03.D.2.1.1	CC.1.4.4.E Use precise language and domain-specific vocabulary to inform about or explain the topic. E04.C.1.2.4 E04.D.2.1.1 E04.D.2.1.3 E04.E.1.1.4	CC.1.4.5.E Write with an awareness of style. <ul style="list-style-type: none"> Use precise language and domain-specific vocabulary to inform about or explain the topic. Use sentences of varying length. E05.C.1.2.4 E05.C.1.2.5 E05.D.2.1.1 E05.D.2.1.2 E05.D.2.1.3 E05.D.2.1.4 E05.E.1.1.3 E05.E.1.1.4 E05.E.1.1.5

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.4 Writing Students write for different purposes and audiences. Students write clear and focused text to convey a well-defined perspective and appropriate content.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Informative/Explanatory Conventions of Language	Intentionally Blank	CC.1.4.K.F Demonstrate a grade-appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling. <ul style="list-style-type: none"> Capitalize the first word in a sentence and the pronoun I. Recognize and use end punctuation. Spell simple words phonetically. 	CC.1.4.1.F Demonstrate a grade-appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling. <ul style="list-style-type: none"> Capitalize dates and names of people. Use end punctuation; use commas in dates and words in series. Spell words drawing on common spelling patterns, phonemic awareness, and spelling conventions. 	CC.1.4.2.F Demonstrate a grade-appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling. <ul style="list-style-type: none"> Capitalize proper nouns. Use commas and apostrophes appropriately. Spell words drawing on common spelling patterns. Consult reference material as needed. 	CC.1.4.3.F Demonstrate a grade-appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling. E03.D.1.1.1 E03.D.1.1.2 E03.D.1.1.3 E03.D.1.1.4 E03.D.1.1.5 E03.D.1.1.6 E03.D.1.1.7 E03.D.1.1.8 E03.D.1.1.9 E03.D.1.2.1 E03.D.1.2.2 E03.D.1.2.3 E03.D.1.2.4 E03.D.1.2.5 E03.D.1.2.6	CC.1.4.4.F Demonstrate a grade-appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling. E04.D.1.1.1 E04.D.1.1.2 E04.D.1.1.3 E04.D.1.1.4 E04.D.1.1.5 E04.D.1.1.6 E04.D.1.1.7 E04.D.1.1.8 E04.D.1.2.1 E04.D.1.2.2 E04.D.1.2.3 E04.D.1.2.4	CC.1.4.5.F Demonstrate a grade-appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling. E05.D.1.1.1 E05.D.1.1.2 E05.D.1.1.3 E05.D.1.1.4 E05.D.1.1.5 E05.D.1.1.6 E05.D.1.1.7 E05.D.1.1.8 E05.D.1.2.1 E05.D.1.2.2 E05.D.1.2.3 E05.D.1.2.4 E05.D.1.2.5
Opinion/ Argumentative	Intentionally Blank	CC.1.4.K.G Use a combination of drawing, dictating, and writing to compose opinion pieces on familiar topics.	CC.1.4.1.G Write opinion pieces on familiar topics.	CC.1.4.2.G Write opinion pieces on familiar topics or texts.	CC.1.4.3.G Write opinion pieces on familiar topics or texts.	CC.1.4.4.G Write opinion pieces on topics or texts.	CC.1.4.5G Write opinion pieces on topics or texts.

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.4 Writing Students write for different purposes and audiences. Students write clear and focused text to convey a well-defined perspective and appropriate content.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Opinion/Argumentative Focus	Intentionally Blank	CC.1.4.K.H Form an opinion by choosing between two given topics.	CC.1.4.1.H Form an opinion by choosing among given topics.	CC.1.4.2.H Identify the topic and state an opinion.	CC.1.4.3.H Introduce the topic and state an opinion on the topic. E03.C.1.1.1	CC.1.4.4.H Introduce the topic and state an opinion on the topic. E04.C.1.1.1 E04.E.1.1.1	CC.1.4.5.H Introduce the topic and state an opinion on the topic. E05.C.1.1.1 E05.E.1.1.1
Opinion/Argumentative Content	Intentionally Blank	CC.1.4.K.I Support the opinion with reasons.	CC.1.4.1.I Support the opinion with reasons related to the opinion.	CC.1.4.2.I Support the opinion with reasons that include details connected to the opinion.	CC.1.4.3.I Support an opinion with reasons. E03.C.1.1.2	CC.1.4.4.I Provide reasons that are supported by facts and details. E04.C.1.1.2 E04.E.1.1.2	CC.1.4.5.I Provide reasons that are supported by facts and details; draw from credible sources. E05.C.1.1.2 E05.E.1.1.2

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.4 Writing Students write for different purposes and audiences. Students write clear and focused text to convey a well-defined perspective and appropriate content.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Opinion/Argumentative Organization	Intentionally Blank	CC.1.4.K.J Make logical connections between drawing and writing.	CC.1.4.1.J Create an organizational structure that includes reasons and provides some sense of closure.	CC.1.4.2.J Create an organizational structure that includes reasons and includes a concluding statement.	CC.1.4.3.J Create an organizational structure that includes reasons linked in a logical order with a concluding statement or section. E03.C.1.1.1 E03.C.1.1.3 E03.C.1.1.4	CC.1.4.4.J Create an organizational structure that includes related ideas grouped to support the writer's purpose and linked in a logical order with a concluding statement or section related to the opinion. E04.C.1.1.1 E04.C.1.1.3 E04.C.1.1.4 E04.E.1.1.1 E04.E.1.1.3 E04.E.1.1.5	CC.1.4.5.J Create an organizational structure that includes related ideas grouped to support the writer's purpose; link opinion and reasons using words, phrases, and clauses; provide a concluding statement or section related to the opinion. E05.C.1.1.1 E05.C.1.1.3 E05.C.1.1.5 E05.E.1.1.1 E05.E.1.1.3 E05.E.1.1.6

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.4 Writing Students write for different purposes and audiences. Students write clear and focused text to convey a well-defined perspective and appropriate content.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Opinion/Argumentative Style	Intentionally Blank	Intentionally Blank	CC.1.4.1.K Use a variety of words and phrases.	CC.1.4.2.K Use a variety of words and phrases to appeal to the audience.	CC.1.4.3.K Use a variety of words and sentence types to appeal to the audience. E03.D.1.1.9 E03.D.2.1.1	CC.1.4.4.K Choose words and phrases to convey ideas precisely. E04.D.2.1.1 E04.D.2.1.3 E04.E.1.1.4	CC.1.4.5.K Write with an awareness of style. <ul style="list-style-type: none"> • Use sentences of varying length. • Expand, combine, and reduce sentences for meaning, reader/listener interest, and style. E05.C.1.1.4 E05.D.2.1.1 E05.D.2.1.2 E05.D.2.1.3 E05.D.2.1.4 E05.E.1.1.4 E05.E.1.1.5

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.4 Writing Students write for different purposes and audiences. Students write clear and focused text to convey a well-defined perspective and appropriate content.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Opinion/Argumentative Conventions of Language	Intentionally Blank	CC.1.4.K.L Demonstrate a grade-appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling. <ul style="list-style-type: none"> Capitalize the first word in a sentence and the pronoun I. Recognize and use end punctuation. Spell simple words phonetically. 	CC.1.4.1.L Demonstrate a grade-appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling. <ul style="list-style-type: none"> Capitalize dates and names of people. Use end punctuation; use commas in dates and words in series. Spell words drawing on common spelling patterns, phonemic awareness, and spelling conventions. 	CC.1.4.2.L Demonstrate a grade-appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling. <ul style="list-style-type: none"> Capitalize proper nouns. Use commas and apostrophes appropriately. Spell words drawing on common spelling patterns. Consult reference material as needed. 	CC.1.4.3.L Demonstrate a grade-appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling. E03.D.1.1.1 E03.D.1.1.2 E03.D.1.1.3 E03.D.1.1.4 E03.D.1.1.5 E03.D.1.1.6 E03.D.1.1.7 E03.D.1.1.8 E03.D.1.1.9 E03.D.1.2.1 E03.D.1.2.2 E03.D.1.2.3 E03.D.1.2.4 E03.D.1.2.5 E03.D.1.2.6	CC.1.4.4.L Demonstrate a grade-appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling. E04.D.1.1.1 E04.D.1.1.2 E04.D.1.1.3 E04.D.1.1.4 E04.D.1.1.5 E04.D.1.1.6 E04.D.1.1.7 E04.D.1.1.8 E04.D.1.2.1 E04.D.1.2.2 E04.D.1.2.3 E04.D.1.2.4	CC.1.4.5.L Demonstrate a grade-appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling. E05.D.1.1.1 E05.D.1.1.2 E05.D.1.1.3 E05.D.1.1.4 E05.D.1.1.5 E05.D.1.1.6 E05.D.1.1.7 E05.D.1.1.8 E05.D.1.2.1 E05.D.1.2.2 E05.D.1.2.3 E05.D.1.2.4 E05.D.1.2.5

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.4 Writing Students write for different purposes and audiences. Students write clear and focused text to convey a well-defined perspective and appropriate content.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Narrative	CC.1.4.PK.M Dictate narratives to describe real or imagined experiences or events.	CC.1.4.K.M Use a combination of drawing, dictating, and writing to compose narratives that describe real or imagined experiences or events.	CC.1.4.1.M Write narratives to develop real or imagined experiences or events.	CC.1.4.2.M Write narratives to develop real or imagined experiences or events.	CC.1.4.3.M Write narratives to develop real or imagined experiences or events.	CC.1.4.4.M Write narratives to develop real or imagined experiences or events.	CC.1.4.5.M Write narratives to develop real or imagined experiences or events.
Narrative Focus	CC.1.4.PK.N Establish who and what the narrative will be about.	CC.1.4.K.N Establish who and what the narrative will be about.	CC.1.4.1.N Establish who and what the narrative will be about.	CC.1.4.2.N Establish a situation and introduce a narrator and/or characters.	CC.1.4.3.N Establish a situation and introduce a narrator and/or characters. E03C.1.3.1	CC.1.4.4.N Orient the reader by establishing a situation and introducing a narrator and/or characters. E04C.1.3.1	CC.1.4.5.N Orient the reader by establishing a situation and introducing a narrator and/or characters. E05C.1.3.1
Narrative Content	CC.1.4.PK.O With prompting and support describe experiences and events.	CC.1.4.K.O Describe experiences and events.	CC.1.4.1.O Include thoughts and feelings to describe experiences and events.	CC.1.4.2.O Include thoughts and feelings to describe experiences and events to show the response of characters to situations.	CC.1.4.3.O Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations. E03C.1.3.2	CC.1.4.4.O Use dialogue and descriptions to develop experiences and events or show the responses of characters to situations; use concrete words and phrases and sensory details to convey experiences and events precisely. E04.C.1.3.2 E04.C.1.3.4	CC.1.4.5.O Use narrative techniques such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations; use concrete words and phrases and sensory details to convey experiences and events precisely. E05.C.1.3.2 E05.C.1.3.4

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.4 Writing Students write for different purposes and audiences. Students write clear and focused text to convey a well-defined perspective and appropriate content.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Narrative Organization	CC.1.4.PK.P Recount a single event and tell about the events in the order in which they occurred.	CC.1.4.K.P Recount a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.	CC.1.4.1.P Recount two or more appropriately sequenced events using temporal words to signal event order and provide some sense of closure.	CC.1.4.2.P Organize a short sequence of events, using temporal words to signal event order; provide a sense of closure.	CC.1.4.3.P Organize an event sequence that unfolds naturally, using temporal words and phrases to signal event order; provide a sense of closure. E03.C.1.3.1 E03.C.1.3.3 E03.C.1.3.4	CC.1.4.4.P Organize an event sequence that unfolds naturally, using a variety of transitional words and phrases to manage the sequence of events; provide a conclusion that follows from the narrated experiences and events. E04.C.1.3.1 E04.C.1.3.3 E04.C.1.3.5	CC.1.4.5.P Organize an event sequence that unfolds naturally, using a variety of transitional words and phrases to manage the sequence of events; provide a conclusion that follows from the narrated experiences and events. E05.C.1.3.1 E05.C.1.3.3 E05.C.1.3.5
Narrative Style	Intentionally Blank	Intentionally Blank	CC.1.4.1.Q Use a variety of words and phrases.	CC.1.4.2.Q Choose words and phrases for effect	CC.1.4.3.Q Choose words and phrases for effect. E03.D.2.1.1	CC.1.4.4.Q Choose words and phrases to convey ideas precisely. E04.C.1.3.4 E04.D.2.1.1 E04.D.2.1.3 E04.E.1.1.4	CC.1.4.5.Q Write with an awareness of style. <ul style="list-style-type: none"> • Use sentences of varying length. • Expand, combine, and reduce sentences for meaning, reader/listener interest, and style. E05.C.1.3.4 E05.D.2.1.1 E05.D.2.1.2 E05.D.2.1.3 E05.D.2.1.4

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.4 Writing Students write for different purposes and audiences. Students write clear and focused text to convey a well-defined perspective and appropriate content.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Narrative Conventions of Language	Intentionally Blank	CC.1.4.K.R Demonstrate a grade-appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling. <ul style="list-style-type: none"> Capitalize first word in sentence and pronoun I. Recognize and use end punctuation. Spell simple words phonetically. 	CC.1.4.1.R Demonstrate a grade-appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling. <ul style="list-style-type: none"> Capitalize dates and names of people. Use end punctuation; use commas in dates and words in series. Spell words drawing on common spelling patterns, phonemic awareness, and spelling conventions. 	CC.1.4.2.R Demonstrate a grade-appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling. <ul style="list-style-type: none"> Capitalize proper nouns. Use commas and apostrophes appropriately. Spell words drawing on common spelling patterns. Consult reference material as needed. 	CC.1.4.3.R Demonstrate a grade-appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling. E03.D.1.1.1 E03.D.1.1.2 E03.D.1.1.3 E03.D.1.1.4 E03.D.1.1.5 E03.D.1.1.6 E03.D.1.1.7 E03.D.1.1.8 E03.D.1.1.9 E03.D.1.2.1 E03.D.1.2.2 E03.D.1.2.3 E03.D.1.2.4 E03.D.1.2.5 E03.D.1.2.6	CC.1.4.4.R Demonstrate a grade-appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling. E04.D.1.1.1 E04.D.1.1.2 E04.D.1.1.3 E04.D.1.1.4 E04.D.1.1.5 E04.D.1.1.6 E04.D.1.1.7 E04.D.1.1.8 E04.D.1.2.1 E04.D.1.2.2 E04.D.1.2.3 E04.D.1.2.4	CC.1.4.5.R Demonstrate a grade-appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling. E05.D.1.1.1 E05.D.1.1.2 E05.D.1.1.3 E05.D.1.1.4 E05.D.1.1.5 E05.D.1.1.6 E05.D.1.1.7 E05.D.1.1.8 E05.D.1.2.1 E05.D.1.2.2 E05.D.1.2.3 E05.D.1.2.4 E05.D.1.2.5

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.4 Writing Students write for different purposes and audiences. Students write clear and focused text to convey a well-defined perspective and appropriate content.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Response to Literature	Intentionally Blank	Intentionally Blank	Intentionally Blank	Intentionally Blank	CC.1.4.3.S Draw evidence from literary or informational texts to support analysis, reflection, and research, applying grade-level reading standards for literature and informational texts.	CC.1.4.4.S Draw evidence from literary or informational texts to support analysis, reflection, and research, applying grade-level reading standards for literature and informational texts. E04.E.1.1.1 E04.E.1.1.2 E04.E.1.1.3 E04.E.1.1.4 E04.E.1.1.5	CC.1.4.5.S Draw evidence from literary or informational texts to support analysis, reflection, and research, applying grade-level reading standards for literature and informational texts. E05.E.1.1.1 E05.E.1.1.2 E05.E.1.1.3 E05.E.1.1.4 E05.E.1.1.5 E05.E.1.1.6
Production and Distribution of Writing Writing Process	CC.1.4.PK.T With guidance and support from adults and peers, respond to questions and suggestions, add details as needed.	CC.1.4.K.T With guidance and support from adults and peers, respond to questions and suggestions from peers and add details to strengthen writing as needed.	CC.1.4.1.T With guidance and support from adults and peers, focus on a topic, respond to questions and suggestions from peers and add details to strengthen writing as needed.	CC.1.4.2.T With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing.	CC.1.4.3.T With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.	CC.1.4.4.T With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.	CC.1.4.5.T With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.4 Writing Students write for different purposes and audiences. Students write clear and focused text to convey a well-defined perspective and appropriate content.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Technology and Publication	Intentionally Blank	CC.1.4.K.U With guidance and support, explore a variety of digital tools to produce and publish writing or in collaboration with peers.	CC.1.4.1.U With guidance and support, use a variety of digital tools to produce and publish writing including in collaboration with peers.	CC.1.4.2.U With guidance and support, use a variety of digital tools to produce and publish writing including in collaboration with peers.	CC.1.4.3.U With guidance and support, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.	CC.1.4.4.U With some guidance and support, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting.	CC.1.4.5.U With some guidance and support, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.
Conducting Research	CC.1.4.PK.V Ask questions about topics of personal interest to gain information; with teacher guidance and support, locate information on the chosen topic.	CC.1.4.K.V Participate in individual or shared research projects on a topic of interest.	CC.1.4.1.V Participate in individual or shared research and writing projects.	CC.1.4.2.V Participate in individual or shared research and writing projects.	CC.1.4.3.V Conduct short research projects that build knowledge about a topic.	CC.1.4.4.V Conduct short research projects that build knowledge through investigation of different aspects of a topic.	CC.1.4.5.V Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.4 Writing Students write for different purposes and audiences. Students write clear and focused text to convey a well-defined perspective and appropriate content.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Credibility, Reliability, and Validity of Sources	CC.1.4.PK.W With guidance and support, recall information from experiences or books.	CC.1.4.K.W With guidance and support, recall information from experiences or gather information from provided sources to answer a question.	CC.1.4.1.W With guidance and support, recall information from experiences or gather information from provided sources to answer a question.	CC.1.4.2.W Recall information from experiences or gather information from provided sources to answer a question.	CC.1.4.3.W Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.	CC.1.4.4.W Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.	CC.1.4.5.W Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.
Range of Writing	Intentionally Blank	CC.1.4.K.X Write routinely over short time frames.	CC.1.4.1.X Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	CC.1.4.2.X Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	CC.1.4.3.X Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	CC.1.4.4.X Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	CC.1.4.5.X Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.5 Speaking and Listening Students present appropriately in formal speaking situations, listen critically, and respond intelligently as individuals or in group discussions.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Comprehension and Collaboration Collaborative Discussion	CC.1.5.PK.A Participate in collaborative conversations with peers and adults in small and larger groups.	CC.1.5.K.A Participate in collaborative conversations with peers and adults in small and larger groups.	CC.1.5.1.A Participate in collaborative conversations with peers and adults in small and larger groups.	CC.1.5.2.A Participate in collaborative conversations with peers and adults in small and larger groups.	CC.1.5.3.A Engage effectively in a range of collaborative discussions on grade-level topics and texts, building on others' ideas and expressing their own clearly.	CC.1.5.4.A Engage effectively in a range of collaborative discussions on grade-level topics and texts, building on others' ideas and expressing their own clearly.	CC.1.5.5.A Engage effectively in a range of collaborative discussions on grade-level topics and texts, building on others' ideas and expressing their own clearly.
Comprehension and Collaboration Critical Listening	CC.1.5.PK.B Answer questions about key details in a text read aloud or information presented orally or through other media.	CC.1.5.K.B Ask and answer questions about key details in a text read aloud or information presented orally or through other media.	CC.1.5.1.B Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood.	CC.1.5.2.B Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.	CC.1.5.3.B Determine the main ideas and supporting details of a text read aloud or information presented in diverse media formats, including visually, quantitatively, and orally.	CC.1.5.4.B Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.	CC.1.5.5.B Summarize the main points of written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.5 Speaking and Listening Students present appropriately in formal speaking situations, listen critically, and respond intelligently as individuals or in group discussions.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Comprehension and Collaboration Evaluating Information	CC.1.5.PK.C Respond to what a speaker says in order to follow directions, seek help, or gather information.	CC.1.5.K.C Ask and answer questions in order to seek help, get information, or clarify something that is not understood.	CC.1.5.1.C Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.	CC.1.5.2.C Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.	CC.1.5.3.C Ask and answer questions about information from a speaker, offering appropriate detail.	CC.1.5.4.C Identify the reasons and evidence a speaker provides to support particular points.	CC.1.5.5.C Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.
Presentation of Knowledge and Ideas Purpose, Audience, and Task	CC.1.5.PK.D Using simple sentences, share stories, familiar experiences, and interests, speaking clearly enough to be understood by most audiences.	CC.1.5.K.D Share stories, familiar experiences, and interests, speaking clearly enough to be understood by all audiences using appropriate volume.	CC.1.5.1.D Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.	CC.1.5.2.D Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.	CC.1.5.3.D Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details; speak clearly with adequate volume, appropriate pacing, and clear pronunciation.	CC.1.5.4.D Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly with adequate volume, appropriate pacing, and clear pronunciation.	CC.1.5.5.D Report on a topic or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly with adequate volume, appropriate pacing, and clear pronunciation.

PENNSYLVANIA CORE STANDARDS
English Language Arts
Grade Pre K–5

1.5 Speaking and Listening Students present appropriately in formal speaking situations, listen critically, and respond intelligently as individuals or in group discussions.							
	Grade Pre K	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Presentation of Knowledge and Ideas Context	CC.1.5.PK.E Using simple sentences, express thoughts, feelings, and ideas, speaking clearly enough to be understood by most audiences.	CC.1.5.K.E Speak audibly and express thoughts, feelings, and ideas clearly.	CC.1.5.1.E Produce complete sentences when appropriate to task and situation.	CC.1.5.2.E Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification.	CC.1.5.3.E Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.	CC.1.5.4.E Differentiate between contexts that require formal English versus informal situations.	CC.1.5.5.E Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.
Integration of Knowledge and Ideas Multimedia	Intentionally Blank	Intentionally Blank	CC.1.5.1.F Add drawings or other visual displays when sharing aloud to clarify ideas, thoughts, and feelings.	CC.1.5.2.F Add drawings or other visual displays to presentations when appropriate to clarify ideas, thoughts, and feelings.	CC.1.5.3.F Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details.	CC.1.5.4.F Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.	CC.1.5.5.F Include multimedia components and visual displays in presentations when appropriate to enhance the development of main ideas or themes.
Conventions of Standard English	CC.1.5.PK.G Demonstrate command of the conventions of standard English when speaking, based on prekindergarten level and content.	CC.1.5.K.G Demonstrate command of the conventions of standard English when speaking, based on kindergarten level and content.	CC.1.5.1.G Demonstrate command of the conventions of standard English when speaking, based on Grade 1 level and content.	CC.1.5.2.G Demonstrate command of the conventions of standard English when speaking, based on Grade 2 level and content.	CC.1.5.3.G Demonstrate command of the conventions of standard English when speaking, based on Grade 3 level and content.	CC.1.5.4.G Demonstrate command of the conventions of standard English when speaking, based on Grade 4 level and content.	CC.1.5.5.G Demonstrate command of the conventions of standard English when speaking, based on Grade 5 level and content.

PA Core Instructional Framework

MATH {Information taken and adapted from SAS Portal @ <http://www.pdesas.org/CMap>}

In grades 3-5, students develop an understanding of and fluency with all four operations and extend their knowledge to 2-digit divisors and decimals to the hundredths. An understanding of fractions ranges from unit fractions to fraction equivalency, culminating with developing fluency with addition and subtraction of fractions, as well as an understanding of multiplication and division of fractions.

Geometry involves analyzing, comparing, and classifying geometric figures by their attributes, including sides and angles. The concept of geometric measurement develops as students move from an understanding of the structure of rectangular arrays, area, and perimeter to the conceptual understanding of volume.

In addition, students explore the concepts of measurement, including conversion of units, elapsed time, money, data, and patterns, metric and standard units.



GRADE 3

In third grade, instructional time should focus on five critical areas: [1] developing understanding of multiplication and division and strategies for multiplication and division within 100; [2] developing understanding of fractions, especially unit fractions (fractions with a numerator of 1); [3] developing understanding of the structure of rectangular arrays and of area; [4] describing and analyzing two-dimensional shapes; and [5] solving problems involving measurement and estimation of intervals of time, money, liquid volumes, masses, and lengths of objects.

GRADE 4

In fourth grade, instructional time should focus on four critical areas: [1] developing understanding and fluency with multi-digit multiplication including familiarity with patterns, factors and multiples, and developing understanding of dividing to find quotients involving multi-digit dividends; [2] developing understanding of fraction/decimal equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers; [3] understanding that geometric figures can be analyzed and classified on their properties, such as having parallel sides, perpendicular sides, particular angle measures, and symmetry; [4] solving problems involving length, weight, liquid, mass, volume, time, area, and perimeter.

GRADE 5

In fifth grade, mathematics is about [1] developing fluency with addition and subtraction of fractions, and developing understanding of the multiplication of fractions and of division of fractions in limited cases (unit fractions divided by whole numbers and whole numbers divided by unit fractions); [2] extending division to two-digit divisors, integrating decimal fractions into the place value system and developing understanding of operations with decimals to hundredths, and developing fluency with whole number and decimal operations; and [3] developing understanding of volume.

Academic Standards for Mathematics



*Grades Pre K – High School
March 1, 2014*

Pennsylvania Department of Education

PA CORE STANDARDS Mathematics

INTRODUCTION

The Pennsylvania Core Standards in Mathematics in grades PreK–5 lay a solid foundation in whole numbers, addition, subtraction, multiplication, division, fractions, and decimals. Taken together, these elements support a student’s ability to learn and apply more demanding math concepts and procedures. The middle school and high school standards call on students to practice applying mathematical ways of thinking to real world issues and challenges; they prepare students to think and reason mathematically. Additionally, they set a rigorous definition of college and career readiness by demanding that students develop a depth of understanding and ability to apply mathematics to novel situations, as college students and employees regularly do. Although the **standards are not a curriculum** or a prescribed series of activities, school entities will use them to develop a local school curriculum that will meet local students’ needs.

This document includes PA Core Standards for **Mathematical Content** and **Mathematical Practice**. The mathematics standards define what students should understand and be able to do. Mathematical Practice Standards describes the habits of mind required to reach a level of mathematical proficiency.

PA Core Standards <i>Mathematical Content and Mathematical Practice</i>		
Standards for Mathematical Content		Standards for Mathematical Practice
2.1 Numbers and Operations <i>A) Counting and Cardinality</i> <i>B) Numbers and Operations in Base Ten</i> <i>C) Numbers and Operations—Fractions</i> <i>D) Ratios and Proportional Relationships</i> <i>E) The Number System</i> <i>F) Number and Quantity</i>		<ul style="list-style-type: none"> <i>Make sense of problems and persevere in solving them.</i> <i>Reason abstractly and quantitatively.</i> <i>Construct viable arguments and critique the reasoning of others.</i> <i>Model with mathematics.</i> <i>Use appropriate tools strategically.</i> <i>Attend to precision.</i> <i>Look for and make use of structure.</i> <i>Look for and make sense of regularity in repeated reasoning.</i>
2.2 Algebraic Concepts <i>A) Operations and Algebraic Thinking</i> <i>B) Expressions & Equations</i> <i>C) Functions</i> <i>D) Algebra</i>		
2.3 Geometry <i>A) Geometry</i>		
2.4 Measurement, Data, and Probability <i>A) Measurement and Data</i> <i>B) Statistics and Probability</i>		

PA CORE STANDARDS Mathematics

Standards cannot be viewed or addressed in isolation, as each standard depends upon or may lead into multiple standards across grades; thus, it is imperative that educators are familiar with both the standards that come before and those that follow a particular grade level. These revised standards reflect instructional shifts that cannot occur without the integrated emphasis on content and practice.

Standards are overarching statements of what a proficient math student should know and be able to do. The Pennsylvania Assessment Anchors and Eligible Content closely align with the revised standards and are an invaluable source for greater detail.

Key Points in Mathematics

- The standards stress both procedural skills and conceptual understanding to ensure students are learning and applying the critical information they need to succeed at higher levels.
- K–5 standards, which provide students with a *solid foundation in whole numbers, addition, subtraction, multiplication, division, fractions, and decimals*, help young students build the foundation to successfully apply more demanding math concepts and procedures, and move into application. They also provide detailed guidance to teachers on how to navigate their way through topics such as *fractions, negative numbers, and geometry*, and do so by maintaining a continuous progression from grade to grade.
- Having built a strong foundation at K–5, students can do hands-on learning in geometry, algebra, and probability and statistics. Students who have mastered the content and skills through the seventh grade will be *well-prepared for algebra* in grade 8.
- High school standards emphasize *practicing applying mathematical ways of thinking to real world issues and challenges*.

PA CORE STANDARDS Mathematics

The PA Core Standards for Mathematics detail four standard areas: *Numbers and Operations*, *Algebraic Concepts*, *Geometry*, and *Measurement, Data, and Probability*. These standard areas are reflective of the reporting categories in the PA Core Assessment Anchors and Eligible Content. The intent of this document is to provide a useful tool for designing curriculum, instruction, and assessment. The grade level curriculum and instructional shifts in mathematics cannot occur without the integrated emphasis on content and practice. The chart below illustrates the four standard areas and the development and progression of the strands, with an understanding that all is framed around the Standards for Mathematical Practice.

Mathematical Standards: Development and Progression												
Standards for Mathematical Practice												
Make sense of problems and persevere in solving them. Construct viable arguments and critique the reasoning of others. Use appropriate tools strategically. Look for and make use of structure.						Reason abstractly and quantitatively. Model with mathematics. Attend to precision. Look for and express regularity in repeated reasoning.						
	PreK	K	1	2	3	4	5	6	7	8	HS	
2.1 Numbers and Operations	(A) Counting & Cardinality											
		(B) Numbers and Operations in Base Ten						(D) Ratios and Proportional Relationships			(F) Number and Quantity	
					(C) Numbers and Operations — Fractions			(E) The Number System				
2.2 Algebraic Concepts	(A) Operations and Algebraic Thinking						(B) Expressions and Equations			(D) Algebra		
										(C) Functions		
2.3 Geometry	(A) Geometry											
2.4 Measurement, Data, and Probability	(A) Measurement and Data						(B) Statistics and Probability					

PA CORE STANDARDS Mathematics

2.1 Numbers and Operations							
<p style="text-align: center;">The Standards of Mathematical Practices</p> <div style="display: flex; justify-content: space-between;"> <div> <p>Make sense of problems and persevere in solving them.</p> <p>Construct viable arguments and critique the reasoning of others.</p> <p>Use appropriate tools strategically.</p> <p>Look for and make use of structure.</p> </div> <div> <p>Reason abstractly and quantitatively.</p> <p>Model with mathematics.</p> <p>Attend to precision.</p> <p>Look for and express regularity in repeated reasoning.</p> </div> </div>							
	Grade PreK 2.1.PreK	Grade K 2.1.K	Grade 1 2.1.1	Grade 2 2.1.2	Grade 3 2.1.3	Grade 4 2.1.4	Grade 5 2.1.5
Pennsylvania's public schools shall teach, challenge, and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:							
(A) Counting & Cardinality	CC.2.1.PreK.A.1 Know number names and the count sequence.	CC.2.1.K.A.1 Know number names and write and recite the count sequence.	Intentionally Blank	Intentionally Blank	Intentionally Blank	Intentionally Blank	Intentionally Blank
	CC.2.1.PreK.A.2 Count to tell the number of objects.	CC.2.1.K.A.2 Apply one-to-one correspondence to count the number of objects.					
	CC.2.1.PreK.A.3 Compare numbers.	CC.2.1.K.A.3 Apply the concept of magnitude to compare numbers and quantities.					
(B) Numbers & Operations in Base Ten	Intentionally Blank	CC.2.1.K.B.1 Use place value to compose and decompose numbers within 19.	CC.2.1.1.B.1 Extend the counting sequence to read and write numerals to represent objects.	CC.2.1.2.B.1 Use place-value concepts to represent amounts of tens and ones and to compare three digit numbers.	CC.2.1.3.B.1 Apply place-value understanding and properties of operations to perform multi-digit arithmetic. M03.A-T.1.1.1 M03.A-T.1.1.2 M03.A-T.1.1.3 M03.A-T.1.1.4	CC.2.1.4.B.1 Apply place-value concepts to show an understanding of multi-digit whole numbers. M04.A-T.1.1.1 M04.A-T.1.1.2 M04.A-T.1.1.3 M04.A-T.1.1.4	CC.2.1.5.B.1 Apply place-value concepts to show an understanding of operations and rounding as they pertain to whole numbers and decimals. M05.A-T.1.1.1 M05.A-T.1.1.2 M05.A-T.1.1.3 M05.A-T.1.1.4 M05.A-T.1.1.5
		Intentionally Blank	CC.2.1.1.B.2 Use place-value concepts to represent amounts of tens and ones and to compare two digit numbers.	CC.2.1.2.B.2 Use place-value concepts to read, write, and skip count to 1000.	Intentionally Blank	CC.2.1.4.B.2 Use place-value understanding and properties of operations to perform multi-digit arithmetic. M04.A-T.2.1.1 M04.A-T.2.1.2 M04.A-T.2.1.3 M04.A-T.2.1.4	CC.2.1.5.B.2 Extend an understanding of operations with whole numbers to perform operations including decimals. M05.A-T.2.1.1 M05.A-T.2.1.2 M05.A-T.2.1.3
			CC.2.1.1.B.3 Use place-value concepts and properties of operations to add and subtract within 100.	CC.2.1.2.B.3 Use place-value understanding and properties of operations to add and subtract within 1000.	Intentionally Blank	Intentionally Blank	Intentionally Blank

PA CORE STANDARDS Mathematics

2.1 Numbers and Operations							
<p style="text-align: center;">The Standards of Mathematical Practices</p> <div style="display: flex; justify-content: space-between;"> <div> <p>Make sense of problems and persevere in solving them.</p> <p>Construct viable arguments and critique the reasoning of others.</p> <p>Use appropriate tools strategically.</p> <p>Look for and make use of structure.</p> </div> <div> <p>Reason abstractly and quantitatively.</p> <p>Model with mathematics.</p> <p>Attend to precision.</p> <p>Look for and express regularity in repeated reasoning.</p> </div> </div>							
	Grade PreK 2.1.PreK	Grade K 2.1.K	Grade 1 2.1.1	Grade 2 2.1.2	Grade 3 2.1.3	Grade 4 2.1.4	Grade 5 2.1.5
Pennsylvania's public schools shall teach, challenge, and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:							
(C) Numbers & Operations — Fractions	<i>Intentionally Blank</i>	<i>Intentionally Blank</i>	<i>Intentionally Blank</i>	<i>Intentionally Blank</i>	CC.2.1.3.C.1 Explore and develop an understanding of fractions as numbers. M03.A-F.1.1.1 M03.A-F.1.1.2 M03.A-F.1.1.3 M03.A-F.1.1.4 M03.A-F.1.1.5	CC.2.1.4.C.1 Extend the understanding of fractions to show equivalence and ordering. M04.A-F.1.1.1 M04.A-F.1.1.2	CC.2.1.5.C.1 Use the understanding of equivalency to add and subtract fractions. M05.A-F.1.1.1
					<i>Intentionally Blank</i>	CC.2.1.4.C.2 Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers. M04.A-F.2.1.1 M04.A-F.2.1.2 M04.A-F.2.1.3 M04.A-F.2.1.4 M04.A-F.2.1.5 M04.A-F.2.1.6 M04.A-F.2.1.7	CC.2.1.5.C.2 Apply and extend previous understandings of multiplication and division to multiply and divide fractions. M05.A-F.2.1.1 M05.A-F.2.1.2 M05.A-F.2.1.3 M05.A-F.2.1.4
					<i>Intentionally Blank</i>	CC.2.1.4.C.3 Connect decimal notation to fractions, and compare decimal fractions (base 10 denominator, e.g., 19/100). M04.A-F.3.1.1 M04.A-F.3.1.2 M04.A-F.3.1.3	<i>Intentionally Blank</i>

PA CORE STANDARDS Mathematics

2.2 Algebraic Concepts							
<p style="text-align: center;">The Standards of Mathematical Practices</p> <div style="display: flex; justify-content: space-between;"> <div> <p>Make sense of problems and persevere in solving them.</p> <p>Construct viable arguments and critique the reasoning of others.</p> <p>Use appropriate tools strategically.</p> <p>Look for and make use of structure.</p> </div> <div> <p>Reason abstractly and quantitatively.</p> <p>Model with mathematics.</p> <p>Attend to precision.</p> <p>Look for and express regularity in repeated reasoning.</p> </div> </div>							
	Grade PreK 2.2.PreK	Grade K 2.2.K	Grade 1 2.2.1	Grade 2 2.2.2	Grade 3 2.2.3	Grade 4 2.2.4	Grade 5 2.2.5
<i>Pennsylvania's public schools shall teach, challenge, and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i>							
(A) Operations and Algebraic Thinking	CC.2.2.PreK.A.1 Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.	CC.2.2.K.A.1 Extend the concepts of putting together and taking apart to add and subtract within 10.	CC.2.2.1.A.1 Represent and solve problems involving addition and subtraction within 20.	CC.2.2.2.A.1 Represent and solve problems involving addition and subtraction within 100.	CC.2.2.3.A.1 Represent and solve problems involving multiplication and division. M03.B-O.1.1.1 M03.B-O.1.1.2 M03.B-O.1.2.1 M03.B-O.1.2.2	CC.2.2.4.A.1 Represent and solve problems involving the four operations. M04.B-O.1.1.1 M04.B-O.1.1.2 M04.B-O.1.1.3 M04.B-O.1.1.4	CC.2.2.5.A.1 Interpret and evaluate numerical expressions using order of operations. M05.B-O.1.1.1 M05.B-O.1.1.2
	<i>Intentionally Blank</i>	<i>Intentionally Blank</i>	CC.2.2.1.A.2 Understand and apply properties of operations and the relationship between addition and subtraction.	CC.2.2.2.A.2 Use mental strategies to add and subtract within 20.	CC.2.2.3.A.2 Understand properties of multiplication and the relationship between multiplication and division. M03.B-O.2.1.1 M03.B-O.2.1.2 M03.B-O.2.2.1	CC.2.2.4.A.2 Develop and/or apply number theory concepts to find factors and multiples. M04.B-O.2.1.1	<i>Intentionally Blank</i>
	<i>Intentionally Blank</i>	<i>Intentionally Blank</i>	<i>Intentionally Blank</i>	CC.2.2.2.A.3 Work with equal groups of objects to gain foundations for multiplication.	CC.2.2.3.A.3 Demonstrate multiplication and division fluency.	<i>Intentionally Blank</i>	<i>Intentionally Blank</i>
	<i>Intentionally Blank</i>	<i>Intentionally Blank</i>	<i>Intentionally Blank</i>	<i>Intentionally Blank</i>	CC.2.2.3.A.4 Solve problems involving the four operations, and identify and explain patterns in arithmetic. M03.B-O.3.1.1 M03.B-O.3.1.2 M03.B-O.3.1.3 M03.B-O.3.1.4 M03.B-O.3.1.5 M03.B-O.3.1.6 M03.B-O.3.1.7	CC.2.2.4.A.4 Generate and analyze patterns using one rule. M04.B-O.3.1.1 M04.B-O.3.1.2 M04.B-O.3.1.3	CC.2.2.5.A.4 Analyze patterns and relationships using two rules. M05.B-O.2.1.1 M05.B-O.2.1.2

**PA CORE STANDARDS
Mathematics**

2.3 Geometry							
<p style="text-align: center;">The Standards of Mathematical Practices</p> <div style="display: flex; justify-content: space-between;"> <div> <p>Make sense of problems and persevere in solving them.</p> <p>Construct viable arguments and critique the reasoning of others.</p> <p>Use appropriate tools strategically.</p> <p>Look for and make use of structure.</p> </div> <div> <p>Reason abstractly and quantitatively.</p> <p>Model with mathematics.</p> <p>Attend to precision.</p> <p>Look for and express regularity in repeated reasoning.</p> </div> </div>							
	Grade PreK 2.3.PreK	Grade K 2.3.K	Grade 1 2.3.1	Grade 2 2.3.2	Grade 3 2.3.3	Grade 4 2.3.4	Grade 5 2.3.5
<i>Pennsylvania's public schools shall teach, challenge, and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i>							
(A) Geometry	CC.2.3.PreK.A.1 Identify and describe shapes.	CC.2.3.K.A.1 Identify and describe two- and three-dimensional shapes.	CC.2.3.1.A.1 Compose and distinguish between two- and three-dimensional shapes based on their attributes.	CC.2.3.2.A.1 Analyze and draw two- and three-dimensional shapes having specified attributes.	CC.2.3.3.A.1 Identify, compare, and classify shapes and their attributes. M03.C-G.1.1.1 M03.C-G.1.1.2	CC.2.3.4.A.1 Draw lines and angles and identify these in two-dimensional figures. M04.C-G.1.1.1	CC.2.3.5.A.1 Graph points in the first quadrant on the coordinate plane and interpret these points when solving real world and mathematical problems. M05.C-G.1.1.1 M05.C-G.1.1.2
	CC.2.3.PreK.A.2 Analyze, compare, create, and compose shapes.	CC.2.3.K.A.2 Analyze, compare, create, and compose two- and three-dimensional shapes.	CC.2.3.1.A.2 Use the understanding of fractions to partition shapes into halves and quarters.	CC.2.3.2.A.2 Use the understanding of fractions to partition shapes into halves, quarters, and thirds.	CC.2.3.3.A.2 Use the understanding of fractions to partition shapes into parts with equal areas and express the area of each part as a unit fraction of the whole. M03.C-G.1.1.3	C.2.3.4.A.2 Classify two-dimensional figures by properties of their lines and angles. M04.C-G.1.1.2	CC.2.3.5.A.2 Classify two-dimensional figures into categories based on an understanding of their properties. M05.C-G.2.1.1
	<i>Intentionally Blank</i>	<i>Intentionally Blank</i>	<i>Intentionally Blank</i>	<i>Intentionally Blank</i>	<i>Intentionally Blank</i>	CC.2.3.4.A.3 Recognize symmetric shapes and draw lines of symmetry. M04.C-G.1.1.3	<i>Intentionally Blank</i>

PA CORE STANDARDS Mathematics

2.4 Measurement, Data, and Probability							
<p style="text-align: center;">The Standards of Mathematical Practices</p> <div style="display: flex; justify-content: space-between;"> <div> <p>Make sense of problems and persevere in solving them.</p> <p>Construct viable arguments and critique the reasoning of others.</p> <p>Use appropriate tools strategically.</p> <p>Look for and make use of structure.</p> </div> <div> <p>Reason abstractly and quantitatively.</p> <p>Model with mathematics.</p> <p>Attend to precision.</p> <p>Look for and express regularity in repeated reasoning.</p> </div> </div>							
	Grade PreK 2.4.PreK	Grade K 2.4.K	Grade 1 2.4.1	Grade 2 2.4.2	Grade 3 2.4.3	Grade 4 2.4.4	Grade 5 2.4.5
<i>Pennsylvania's public schools shall teach, challenge, and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i>							
(A) Measurement and Data	CC.2.4.PreK.A.1 Describe and compare measurable attributes of length and weight of everyday objects.	CC.2.4.K.A.1 Describe and compare attributes of length, area, weight, and capacity of everyday objects.	CC.2.4.1.A.1 Order lengths and measure them both indirectly and by repeating length units.	CC.2.4.2.A.1 Measure and estimate lengths in standard units using appropriate tools.	CC.2.4.3.A.1 Solve problems involving measurement and estimation of temperature, liquid volume, mass, and length. M03.D-M.1.2.1 M03.D-M.1.2.2 M03.D-M.1.2.3	CC.2.4.4.A.1 Solve problems involving measurement and conversions from a larger unit to a smaller unit. M04.D-M.1.1.1 M04.D-M.1.1.2 M04.D-M.1.1.3 M04.D-M.1.1.4	CC.2.4.5.A.1 Solve problems using conversions within a given measurement system. M05.D-M.1.1.1
	<i>Intentionally Blank</i>	<i>Intentionally Blank</i>	CC.2.4.1.A.2 Tell and write time to the nearest half hour using both analog and digital clocks.	CC.2.4.2.A.2 Tell and write time to the nearest five minutes using both analog and digital clocks.	CC.2.4.3.A.2 Tell and write time to the nearest minute and solve problems by calculating time intervals. M03.D-M.1.1.1 M03.D-M.1.1.2	CC.2.4.4.A.2 Translate information from one type of data display to another. M04.D-M.2.1.3	CC.2.4.5.A.2 Represent and interpret data using appropriate scale. M05.D-M.2.1.2
	<i>Intentionally Blank</i>	<i>Intentionally Blank</i>	<i>Intentionally Blank</i>	CC.2.4.2.A.3 Solve problems and make change using coins and paper currency with appropriate symbols.	CC.2.4.3.A.3 Solve problems and make change involving money using a combination of coins and bills. M03.D-M.1.3.1 M03.D-M.1.3.2 M03.D-M.1.3.3	<i>Intentionally Blank</i>	<i>Intentionally Blank</i>

PA CORE STANDARDS Mathematics

2.4 Measurement, Data, and Probability							
<p style="text-align: center;">The Standards of Mathematical Practices</p> <div style="display: flex; justify-content: space-between;"> <div> <p>Make sense of problems and persevere in solving them.</p> <p>Construct viable arguments and critique the reasoning of others.</p> <p>Use appropriate tools strategically.</p> <p>Look for and make use of structure.</p> </div> <div> <p>Reason abstractly and quantitatively.</p> <p>Model with mathematics.</p> <p>Attend to precision.</p> <p>Look for and express regularity in repeated reasoning.</p> </div> </div>							
	Grade PreK 2.4.PreK	2.4.K Grade K	Grade 1 2.4.1	2.4.2 Grade 2	2.4.3 Grade 3	2.4.4 Grade 4	2.4.5 Grade 5
<i>Pennsylvania's public schools shall teach, challenge, and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i>							
(A) Measurement and Data	CC.2.4.PreK.A.4 Classify objects and count the number of objects in each category.	CC.2.4.K.A.4 Classify objects and count the number of objects in each category.	CC.2.4.1.A.4 Represent and interpret data using tables/charts.	CC.2.4.2.A.4 Represent and interpret data using line plots, picture graphs, and bar graphs.	CC.2.4.3.A.4 Represent and interpret data using tally charts, tables, pictographs, line plots, and bar graphs. M03.D-M.2.1.1 M03.D-M.2.1.2 M03.D-M.2.1.3 M03.D-M.2.1.4	CC.2.4.4.A.4 Represent and interpret data involving fractions using information provided in a line plot. M04.D-M.2.1.1 M04.D-M.2.1.2	CC.2.4.5.A.4 Solve problems involving computation of fractions using information provided in a line plot. M05.D-M.2.1.1
	<i>Intentionally Blank</i>	<i>Intentionally Blank</i>	<i>Intentionally Blank</i>	<i>Intentionally Blank</i>	CC.2.4.3.A.5 Determine the area of a rectangle and apply the concept to multiplication and to addition. M03.D-M.3.1.1 M03.D-M.3.1.2	<i>Intentionally Blank</i>	CC.2.4.5.A.5 Apply concepts of volume to solve problems and relate volume to multiplication and to addition. M05.D-M.3.1.1 M05.D-M.3.1.2
				CC.2.4.2.A.6 Extend the concepts of addition and subtraction to problems involving length.	CC.2.4.3.A.6 Solve problems involving perimeters of polygons and distinguish between linear and area measures. M03.D-M.4.1.1	CC.2.4.4.A.6 Measure angles and use properties of adjacent angles to solve problems. M04.D-M.3.1.1 M04.D-M.3.1.2	<i>Intentionally Blank</i>

PA CORE STANDARDS Mathematics

2.1. Numbers and Operations					
<p style="text-align: center;">The Standards of Mathematical Practices</p> <div style="display: flex; justify-content: space-between;"> <div> <p>Make sense of problems and persevere in solving them.</p> <p>Construct viable arguments and critique the reasoning of others.</p> <p>Use appropriate tools strategically.</p> <p>Look for and make use of structure.</p> </div> <div> <p>Reason abstractly and quantitatively.</p> <p>Model with mathematics.</p> <p>Attend to precision.</p> <p>Look for and express regularity in repeated reasoning.</p> </div> </div>					
	2.1.6 Grade 6	2.1.7 Grade 7	2.1.8 Grade 8		2.1.HS High School
<i>Pennsylvania's public schools shall teach, challenge, and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i>					
(D) Ratios & Proportional Relationships	CC.2.1.6.D.1 Understand ratio concepts and use ratio reasoning to solve problems. M06.A-R.1.1.1 M06.A-R.1.1.2 M06.A-R.1.1.3 M06.A-R.1.1.4 M06.A-R.1.1.5	CC.2.1.7.D.1 Analyze proportional relationships and use them to model and solve real-world and mathematical problems. M07.A-R.1.1.1 M07.A-R.1.1.2 M07.A-R.1.1.3 M07.A-R.1.1.4 M07.A-R.1.1.5 M07.A-R.1.1.6	<i>Intentionally Blank</i>	(F) Number and Quantity	CC.2.1.HS.F.1 Apply and extend the properties of exponents to solve problems with rational exponents. A1.1.1.1.1, A1.1.1.1.2, A1.1.1.3.1, A2.1.2.1.1, A2.1.2.1.2, A2.1.2.1.3, A2.1.2.1.4 CC.2.1.HS.F.2 Apply properties of rational and irrational numbers to solve real world or mathematical problems. A1.1.1.1.1, A1.1.1.1.2, A1.1.1.3.1, A1.1.1.2.1 CC.2.1.HS.F.3 Apply quantitative reasoning to choose and interpret units and scales in formulas, graphs, and data displays. A1.1.2.1.1, A1.1.2.1.2, A1.1.2.1.3, A1.2.1.2.1, A1.2.1.2.2, A2.2.2.1.1, A2.2.2.1.2, A2.2.3.1.1, A2.2.3.1.2 CC.2.1.HS.F.4 Use units as a way to understand problems and to guide the solution of multi-step problems. A1.1.2.1.1, A1.1.2.1.2, A1.1.2.1.3, A1.2.1.2.1, A1.2.1.2.2, A2.2.2.1.1, A2.2.2.1.2 CC.2.1.HS.F.5 Choose a level of accuracy appropriate to limitations on measurement when reporting quantities. A1.1.2.1.1, A1.1.2.1.2, A1.1.2.1.3, A1.1.2.2.1, A1.1.2.2.2, A1.1.3.1.1, A1.1.3.1.2, A1.1.3.1.3, A1.1.3.2.1, A1.1.3.2.2, A2.2.3.1.1, A2.2.3.1.2 CC.2.1.HS.F.6 Extend the knowledge of arithmetic operations and apply to complex numbers. A2.1.1.1.1, A2.1.1.1.2, A2.1.1.2.1, A2.1.1.2.2 CC.2.1.HS.F.7 Apply concepts of complex numbers in polynomial identities and quadratic equations to solve problems. A2.2.1.1.1, A2.2.1.1.2, A2.2.1.1.3, A2.2.1.1.4
	CC.2.1.6.E.1 Apply and extend previous understandings of multiplication and division to divide fractions by fractions. M06.A-N.1.1.1 CC.2.1.6.E.2 Identify and choose appropriate processes to compute fluently with multi-digit numbers. M06.A-N.2.1.1 CC.2.1.6.E.3 Develop and/or apply number theory concepts to find common factors and multiples. M06.A-N.2.2.1 M06.A-N.2.2.2 A1.1.1.2.1	CC.2.1.7.E.1 Apply and extend previous understandings of operations with fractions to operations with rational numbers. M07.A-N.1.1.1 M07.A-N.1.1.2 M07.A-N.1.1.3 <i>Intentionally Blank</i>	CC.2.1.8.E.1 Distinguish between rational and irrational numbers using their properties. M08.A-N.1.1.1 M08.A-N.1.1.2 A1.1.1.1.1 A1.1.1.1.2 <i>Intentionally Blank</i>		

PA CORE STANDARDS Mathematics

2.1. Numbers and Operations					
The Standards of Mathematical Practices					
Make sense of problems and persevere in solving them. Construct viable arguments and critique the reasoning of others. Use appropriate tools strategically. Look for and make use of structure.			Reason abstractly and quantitatively. Model with mathematics. Attend to precision. Look for and express regularity in repeated reasoning.		
	2.1.6 Grade 6	2.1.7 Grade 7	2.1.8 Grade 8		2.1.HS High School
Pennsylvania’s public schools shall teach, challenge, and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:					
	CC.2.1.6.E.4 Apply and extend previous understandings of numbers to the system of rational numbers. M06.A-N.3.1.1 M06.A-N.3.1.2 M06.A-N.3.1.3 M06.A-N.3.2.1 M06.A-N.3.2.2 M06.A-N.3.2.3	Intentionally Blank	CC.2.1.8.E.4 Estimate irrational numbers by comparing them to rational numbers. M08.A-N.1.1.3 M08.A-N.1.1.4 M08.A-N.1.1.5 A1.1.1.1.1		

PA CORE STANDARDS Mathematics

2.2. Algebraic Concepts

The Standards of Mathematical Practices

Make sense of problems and persevere in solving them.
Construct viable arguments and critique the reasoning of others.
Use appropriate tools strategically.
Look for and make use of structure.

Reason abstractly and quantitatively.
Model with mathematics.
Attend to precision.
Look for and express regularity in repeated reasoning.

2.2.6 Grade 6

2.2.7 Grade 7

2.2.8 Grade 8

2.2.HS High School

Pennsylvania's public schools shall teach, challenge, and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:

(B) Expressions and Equations	CC.2.2.6.B.1 Apply and extend previous understandings of arithmetic to algebraic expressions. M06.B-E.1.1.1 M06.B-E.1.1.2 M06.B-E.1.1.3 M06.B-E.1.1.4 M06.B-E.1.1.5	CC.2.2.7.B.1 Apply properties of operations to generate equivalent expressions. M07.B-E.1.1.1	CC.2.2.8.B.1 Apply concepts of radicals and integer exponents to generate equivalent expressions. M08.B-E.1.1.1 M08.B-E.1.1.2 M08.B-E.1.1.3 M08.B-E.1.1.4 A1.1.1.3.1	(D) Algebra	CC.2.2.HS.D.1 Interpret the structure of expressions to represent a quantity in terms of its context. A1.1.1.5.1, A1.1.1.5.2, A1.1.1.5.3, A2.1.2.2.1, A2.1.2.2.2 CC.2.2.HS.D.2 Write expressions in equivalent forms to solve problems. A1.1.1.5.1, A1.1.1.5.2, A1.1.1.5.3, A2.1.2.1.1, A2.1.2.1.2, A2.1.2.1.3, A2.1.2.1.4, A2.1.2.2.1, A2.1.2.2.2 CC.2.2.HS.D.3 Extend the knowledge of arithmetic operations and apply to polynomials. A1.1.1.5.1, A1.1.1.5.2, A1.1.1.5.3, A2.1.2.2.1, A2.1.2.2.2 CC.2.2.HS.D.4 Understand the relationship between zeros and factors of polynomials to make generalizations about functions and their graphs. A2.1.2.2.1, A2.1.2.2.2 CC.2.2.HS.D.5 Use polynomial identities to solve problems. A1.1.1.5.1, A1.1.1.5.2, A1.1.1.5.3, A2.1.2.2.1, A2.1.2.2.2, A2.1.3.1.1, A2.1.3.1.2, A2.1.3.1.3, A2.1.3.1.4 CC.2.2.HS.D.6 Extend the knowledge of rational functions to rewrite in equivalent forms. A1.1.1.5.1, A1.1.1.5.2, A1.1.1.5.3, A2.1.3.1.1, A2.1.3.1.2, A2.1.3.1.3, A2.1.3.1.4 CC.2.2.HS.D.7 Create and graph equations or inequalities to describe numbers or relationships. A1.1.2.1.1, A1.1.2.1.2, A1.1.2.1.3, A1.1.2.2.1, A1.1.2.2.2, A1.1.3.1.1, A1.1.3.1.2, A1.1.3.1.3, A1.1.3.2.1, A1.1.3.2.2, A2.1.3.1.1, A2.1.3.1.2, A2.1.3.1.3, A2.1.3.1.4, A2.1.3.2.1, A2.1.3.2.2, A2.2.2.1.1, A2.2.2.1.2, A2.2.2.1.3, A2.2.2.1.4 CC.2.2.HS.D.8 Apply inverse operations to solve equations or formulas for a given variable. A1.1.2.1.1, A1.1.2.1.2, A1.1.2.1.3, A2.1.3.1.1, A2.1.3.1.2, A2.1.3.1.3, A2.1.3.1.4, A2.1.3.2.1, A2.1.3.2.2 CC.2.2.HS.D.9 Use reasoning to solve equations and justify the solution method. A1.1.1.4.1, A1.1.2.1.1, A1.1.2.1.2, A1.1.2.1.3, A1.1.2.2.1, A1.1.2.2.2, A1.1.3.1.1, A1.1.3.1.2, A1.1.3.1.3, A2.1.3.1.1, A2.1.3.1.2, A2.1.3.1.3, A2.1.3.1.4, A2.1.3.2.1, A2.1.3.2.2 CC.2.2.HS.D.10 Represent, solve, and interpret equations/inequalities and systems of equations/inequalities algebraically and graphically. A1.1.2.1.1, A1.1.2.1.2, A1.1.2.1.3, A1.1.2.2.1, A1.1.2.2.2, A1.1.3.1.1, A1.1.3.1.2, A1.1.3.1.3, A1.1.3.2.1, A1.1.3.2.2, A2.1.3.1.1, A2.1.3.1.2, A2.1.3.1.3, A2.1.3.1.4
	CC.2.2.6.B.2 Understand the process of solving a one-variable equation or inequality and apply it to real-world and mathematical problems. M06.B-E.2.1.1 M06.B-E.2.1.2 M06.B-E.2.1.3 M06.B-E.2.1.4	<i>Intentionally Blank</i>	CC.2.2.8.B.2 Understand the connections between proportional relationships, lines, and linear equations. M08.B-E.2.1.1 M08.B-E.2.1.2 M08.B-E.2.1.3 A1.2.1.2.2		
	CC.2.2.6.B.3 Represent and analyze quantitative relationships between dependent and independent variables. M06.B-E.3.1.1 M06.B-E.3.1.2	CC.2.2.7.B.3 Model and solve real-world and mathematical problems by using and connecting numerical, algebraic, and/or graphical representations. M07.B-E.2.1.1 M07.B-E.2.2.1 M07.B-E.2.2.2 M07.B-E.2.3.1 A1.1.1.4.1	CC.2.2.8.B.3 Analyze and solve linear equations and pairs of simultaneous linear equations. M08.B-E.3.1.1 M08.B-E.3.1.2 M08.B-E.3.1.3 M08.B-E.3.1.4 M08.B-E.3.1.5 A1.1.2.1.1 A1.1.2.2.1 A1.1.2.2.2		

PA CORE STANDARDS Mathematics

2.2. Algebraic Concepts

The Standards of Mathematical Practices

Make sense of problems and persevere in solving them.
Construct viable arguments and critique the reasoning of others.
Use appropriate tools strategically.
Look for and make use of structure.

Reason abstractly and quantitatively.
Model with mathematics.
Attend to precision.
Look for and express regularity in repeated reasoning.

2.2.6 Grade 6

2.2.7 Grade 7

2.2.8 Grade 8

2.2.HS High School

Pennsylvania's public schools shall teach, challenge, and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:

(C) Functions

Intentionally Blank

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CC.2.2.8.C.1
Define, evaluate, and compare functions.

M08.B-F.1.1.1
M08.B-F.1.1.2
M08.B-F.1.1.3
A1.1.2.1.1
A1.2.1.1.2
A1.2.1.2.1
A1.2.1.2.2

CC.2.2.8.C.2
Use concepts of functions to model relationships between quantities.

M08.B-F.2.1.1
M08.B-F.2.1.2
A1.1.2.1.3
A1.2.1.1.1
A1.2.1.2.2
A1.2.2.1.3
A1.2.2.1.4

(C) Functions

CC.2.2.HS.C.1
Use the concept and notation of functions to interpret and apply them in terms of their context.
A1.2.1.1.1, A1.2.1.1.2, A1.2.1.1.3, A1.2.2.1.1, A1.2.2.1.2, A1.2.2.1.3, A1.2.2.1.4, A2.2.1.1.1, A2.2.1.1.2, A2.2.1.1.3, A2.2.1.1.4, G.2.2.2.1, G.2.2.2.2, G.2.2.2.3, G.2.2.2.4, G.2.2.2.5

CC.2.2.HS.C.2
Graph and analyze functions and use their properties to make connections between the different representations.
A1.2.1.1.1, A1.2.1.1.2, A1.2.1.1.3, A1.2.1.2.1, A1.2.1.2.2, A1.2.2.1.1, A2.1.3.1.4, A2.1.3.2.1, A2.1.3.2.2, A2.2.1.1.1, A2.2.1.1.2, A2.2.1.1.3, A2.2.1.1.4

CC.2.2.HS.C.3
Write functions or sequences that model relationships between two quantities.
A1.1.2.1.1, A1.1.2.1.2, A1.1.2.1.3, A1.2.1.1.1, A1.2.1.1.2, A1.2.1.1.3, A1.2.1.2.1, A1.2.1.2.2, A1.2.2.1.3, A1.2.2.1.4, A2.1.3.1.1, A2.1.3.1.2, A2.1.3.1.3, A2.1.3.1.4, A2.1.3.2.1, A2.1.3.2.2, A2.2.1.1.1, A2.2.1.1.2, A2.2.1.1.3, A2.2.1.1.4, A2.2.2.1.1, A2.2.2.1.2, A2.2.2.1.3, A2.2.2.1.4

CC.2.2.HS.C.4
Interpret the effects transformations have on functions and find the inverses of functions.
A1.2.1.2.1, A1.2.1.2.2, A2.1.3.1.3, A2.1.3.1.4, A2.1.3.2.1, A2.2.2.1.1, A2.2.2.1.2, A2.2.2.1.3, A2.2.2.1.4, A2.2.2.2.1

CC.2.2.HS.C.5
Construct and compare linear, quadratic, and exponential models to solve problems.
A1.2.2.1.1, A1.2.2.1.2, A1.2.2.1.3, A1.2.2.1.4, A2.1.3.1.1, A2.1.3.1.2, A2.1.3.1.3, A2.1.3.1.4, A2.2.1.1.1, A2.2.1.1.2, A2.2.1.1.3, A2.2.1.1.4, A2.2.2.1.1, A2.2.2.1.2, A2.2.2.1.3, A2.2.2.1.4, A2.2.2.2.1

CC.2.2.HS.C.6
Interpret functions in terms of the situations they model.
A1.2.1.2.1, A1.2.2.1.2, A1.2.2.1.3, A1.2.2.2.1, A2.1.3.1.3, A2.2.1.1.1, A2.2.1.1.2, A2.2.1.1.3, A2.2.1.1.4, A2.2.2.1.3, A2.2.2.1.4, A2.2.2.2.1

CC.2.2.HS.C.7
Apply radian measure of an angle and the unit circle to analyze the trigonometric functions.

CC.2.2.HS.C.8
Choose trigonometric functions to model periodic phenomena and describe the properties of the graphs.

CC.2.2.HS.C.9
Prove the Pythagorean identity and use it to calculate trigonometric ratios.
G.1.3.2.1, G.2.1.1.1, G.2.1.1.2

PA CORE STANDARDS Mathematics

2.3. Geometry					
The Standards of Mathematical Practices					
Make sense of problems and persevere in solving them. Construct viable arguments and critique the reasoning of others. Use appropriate tools strategically. Look for and make use of structure.			Reason abstractly and quantitatively. Model with mathematics. Attend to precision. Look for and express regularity in repeated reasoning.		
	Grade 6 2.3.6	Grade 7 2.3.7	Grade 8 2.3.8		High School 2.3.HS
Pennsylvania's public schools shall teach, challenge, and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:					
(A) Geometry	CC.2.3.6.A.1 Apply appropriate tools to solve real-world and mathematical problems involving area, surface area, and volume. M06.C-G.1.1.1 M06.C-G.1.1.2 M06.C-G.1.1.3 M06.C-G.1.1.4 M06.C-G.1.1.5 M06.C-G.1.1.6	CC.2.3.7.A.1 Solve real-world and mathematical problems involving angle measure, area, surface area, circumference, and volume. M07.C-G.2.1.1 M07.C-G.2.1.2 M07.C-G.2.2.1 M07.C-G.2.2.2	CC.2.3.8.A.1 Apply the concepts of volume of cylinders, cones, and spheres to solve real-world and mathematical problems. M08.C-G.3.1.1 G.2.3.1.2	(A) Geometry	CC.2.3.HS.A.1 Use geometric figures and their properties to represent transformations in the plane. G.1.3.1.1, G.1.3.1.2 CC.2.3.HS.A.2 Apply rigid transformations to determine and explain congruence. G.1.3.1.1, G.1.3.1.2 CC.2.3.HS.A.3 Verify and apply geometric theorems as they relate to geometric figures. G.1.2.1.1, G.1.2.1.2, G.1.2.1.3, G.1.2.1.4, G.1.2.1.5, G.1.3.2.1, G.2.2.1.1, G.2.2.1.2, G.2.2.2.1, G.2.2.2.2, G.2.2.2.3, G.2.2.2.4, G.2.2.2.5 CC.2.3.HS.A.4 Apply the concept of congruence to create geometric constructions. CC.2.3.HS.A.5 Create justifications based on transformations to establish similarity of plane figures. G.1.3.1.1, G.1.3.1.2 CC.2.3.HS.A.6 Verify and apply theorems involving similarity as they relate to plane figures. G.1.3.1.1, G.1.3.1.2, G.1.3.2.1 CC.2.3.HS.A.7 Apply trigonometric ratios to solve problems involving right triangles. G.2.1.1.1, G.2.1.1.2 CC.2.3.HS.A.8 Apply geometric theorems to verify properties of circles. G.1.1.1.1, G.1.1.1.2, G.1.1.1.3, G.1.1.1.4, G.1.3.2.1, G.2.2.3.1 CC.2.3.HS.A.9 Extend the concept of similarity to determine arc lengths and areas of sectors of circles. G.1.1.1.1, G.1.1.1.2, G.1.1.1.3, G.1.1.1.4, G.2.2.2.1, G.2.2.2.2, G.2.2.2.3, G.2.2.2.4, G.2.2.2.5, G.2.2.3.1 CC.2.3.HS.A.10 Translate between the geometric description and the equation for a conic section. A2.2.1.1.4, A2.2.2.1.1 CC.2.3.HS.A.11 Apply coordinate geometry to prove simple geometric theorems algebraically. G.2.1.2.1, G.2.1.2.2, G.2.1.2.3 CC.2.3.HS.A.12 Explain volume formulas and use them to solve problems. G.2.3.1.1, G.2.3.1.2, G.2.3.1.3 CC.2.3.HS.A.13 Analyze relationships between two-dimensional and three-dimensional objects. G.1.1.1.1, G.1.1.1.2, G.1.1.1.3, G.1.1.1.4, G.1.2.1.1, G.1.2.1.2, G.1.2.1.3, G.1.2.1.4, G.1.2.1.5, G.2.3.2.1 CC.2.3.HS.A.14 Apply geometric concepts to model and solve real world problems. G.2.2.4.1, G.2.3.1.1, G.2.3.1.2, G.2.3.1.3
	Intentionally Blank	CC.2.3.7.A.2 Visualize and represent geometric figures and describe the relationships between them. M07.C-G.1.1.1 M07.C-G.1.1.2 M07.C-G.1.1.3 M07.C-G.1.1.4	CC.2.3.8.A.2 Understand and apply congruence, similarity, and geometric transformations using various tools. M08.C-G.1.1.1 M08.C-G.1.1.2 M08.C-G.1.1.3 M08.C-G.1.1.4 G.1.2.1.1 G.1.2.1.4 G.2.2.1.1		
	Intentionally Blank	Intentionally Blank	CC.2.3.8.A.3 Understand and apply the Pythagorean Theorem to solve problems. M08.C-G.2.1.1 M08.C-G.2.1.2 M08.C-G.2.1.3 G.2.1.1.1 G.2.1.2.1		

PA CORE STANDARDS Mathematics

2.4 Measurement, Data, and Probability					
The Standards of Mathematical Practices					
Make sense of problems and persevere in solving them. Construct viable arguments and critique the reasoning of others. Use appropriate tools strategically. Look for and make use of structure.			Reason abstractly and quantitatively. Model with mathematics. Attend to precision. Look for and express regularity in repeated reasoning.		
	Grade 6 2.4.6	Grade 7 2.4.7	Grade 8 2.4.8		High School 2.4.HS
Pennsylvania’s public schools shall teach, challenge, and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:					
(B) Statistics and Probability	CC.2.4.6.B.1 Demonstrate an understanding of statistical variability by displaying, analyzing, and summarizing distributions. M06.D-S.1.1.1 M06.D-S.1.1.2 M06.D-S.1.1.3 M06.D-S.1.1.4	CC.2.4.7.B.1 Draw inferences about populations based on random sampling concepts. M07.D-S.1.1.1 M07.D-S.1.1.2	CC.2.4.8.B.1 Analyze and/or interpret bivariate data displayed in multiple representations. M08.D-S.1.1.1 M08.D-S.1.1.2 M08.D-S.1.1.3 A1.2.2.2.1	(B) Statistics and Probability	CC.2.4.HS.B.1 Summarize, represent, and interpret data on a single count or measurement variable. A1.2.2.1.2, A1.2.3.1.1, A1.2.3.2.1, A1.2.3.2.2, A1.2.3.2.3, CC.2.4.HS.B.2 Summarize, represent, and interpret data on two categorical and quantitative variables. A1.2.1.1.1, A1.2.1.1.2, A1.2.1.1.3, A1.2.1.2.1, A1.2.1.2.2, A1.2.2.2.1, A2.2.1.1.1, A2.2.3.1.1, A2.2.3.1.2 CC.2.4.HS.B.3 Analyze linear models to make interpretations based on the data. A1.2.2.2.1, A1.2.3.1.1, A1.2.3.2.1, A1.2.3.2.2, A1.2.3.2.3, A2.2.3.1.1, A2.2.3.1.2
	<i>Intentionally Blank</i>	CC.2.4.7.B.2 Draw informal comparative inferences about two populations. M07.D-S.2.1.1	CC.2.4.8.B.2 Understand that patterns of association can be seen in bivariate data utilizing frequencies. M08.D-S.1.2.1		CC.2.4.HS.B.4 Recognize and evaluate random processes underlying statistical experiments. A1.2.3.3.1, A2.2.3.2.1, A2.2.3.2.2, A2.2.3.2.3 CC.2.4.HS.B.5 Make inferences and justify conclusions based on sample surveys, experiments, and observational studies. A1.2.3.2.1, A1.2.3.2.2, A1.2.3.2.3, A2.2.3.2.1, A2.2.3.2.2, A2.2.3.2.3
	<i>Intentionally Blank</i>	CC.2.4.7.B.3 Investigate chance processes and develop, use, and evaluate probability models. M07.D-S.3.1.1 M07.D-S.3.2.1 M07.D-S.3.2.2 M07.D-S.3.2.3 A1.2.3.3.1	<i>Intentionally Blank</i>		CC.2.4.HS.B.6 Use the concepts of independence and conditional probability to interpret data. A2.2.3.2.1, A2.2.3.2.2, A2.2.3.2.3 CC.2.4.HS.B.7 Apply the rules of probability to compute probabilities of compound events in a uniform probability model. A1.2.3.3.1, A2.2.3.2.1, A2.2.3.2.2, A2.2.3.2.3