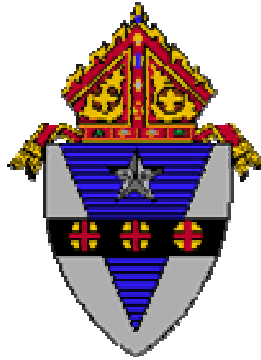# Archdiocese of Philadelphia

Curriculum Standards

English Language Arts and Mathematics

Grade Three

INTRODUCTION

The mission statement of the Office of Catholic Education boldly proclaims that:

Catholic Schools form Catholic students to be full and practicing members of the Church, are centers of evangelization that call all to live fully the message of Jesus Christ, and are centers of academic excellence that rigorously prepare students to be life-long learners and contributing members of the global community.

From this we draw our primary focus, the faith formation of our students. Of major importance, too, is the academic preparation our students receive which will enable them to be college- and career-ready upon commencement from their experience in archdiocesan schools.

This document is a response to the call to prepare our students to become "contributing members of the global community." It is the product of an in-depth study of the data related to existing curriculum, current research, input from respected professional organizations and hours of intense work and dialogue on the part of teachers and administrators from throughout the archdiocese.

Our data study encouraged us to build on the patterns of excellence which have been a hallmark of education in Archdiocesan schools. A review of the existing curriculum and input from many teachers called us to re-focus curriculum content so that instruction and learning would incorporate higher-level thinking and in-depth teaching. At the recommendation of the National Governors' Association, we are moving forward with the adoption of the Common Core State Standards as the basis for curriculum content.

Included in this document are the Common Core State Standards for this level as well as the implementation guides prepared by the curriculum committee members who spent a great deal of time working on them.

As we move forward in the period of transition to full adoption of the Standards and to assessing archdiocesan students using national assessments, we feel confident that our teachers will continue to move forward with the same dedication that will prepare our students to stand shoulder-to-shoulder with the best students both nationally and internationally.

ACKNOWLEDGEMENTS

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English Language Arts	Mathematics	
Mary Tremper, Chairperson	Kate Reardon, Chairperson	
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Early Childhood – Kathleen Smith	**Assessment** – Debbie Jaster	

We are also grateful to the **Elementary Technology Committee** for preparing web links to these guidelines.

CONTENTS

NOTE:

The English Language Arts and Mathematics content are intentionally contained in the same document. With research indicating that skills should be presented in an integrated context, it is the hope that teachers will be more aware of the total curriculum at this level rather than isolated subject matter and make deliberate connections between skills presented in each area.

Also included at each level (with the exception of Kindergarten) are the Common Core State Standards for the grade below and the grade above each level. These are placed here so that, during the transition period leading up to full implementation of the Standards, the teacher is aware of skills that should have been presented at an earlier level and makes plans to incorporate these skills in the event that they have not been presented. It is important, too, that skills designated for higher levels are not anticipated at the current instructional level

English Language Arts

Grade 3

Common Core State Standards – English Language Arts –Grade 2
Common Core State Standards – English Language Arts – Grade 3
Common Core Standards – English Language Arts – Grade 4
Archdiocesan Implementation Guides – Grade 3

Key Points In English Language Arts

Reading

- The standards establish a "staircase" of increasing complexity in what students must be able to read so that all students are ready for the demands of college- and career-level reading no later than the end of high school. The standards also require the progressive development of reading comprehension so that students advancing through the grades are able to gain more from whatever they read.
- Through reading a diverse array of classic and contemporary literature as well as challenging informational texts in a range of subjects, students are expected to build knowledge, gain insights, explore possibilities, and broaden their perspective. Because the standards are building blocks for successful classrooms, but recognize that teachers, school districts and states need to decide on appropriate curriculum, they intentionally do not offer a reading list. Instead, they offer numerous sample texts to help teachers prepare for the school year and allow parents and students to know what to expect at the beginning of the year.
- The standards mandate certain critical types of content for all students, including classic myths and stories from around the world, foundational U.S. documents, seminal works of American literature, and the writings of Shakespeare. The standards appropriately defer the many remaining decisions about what and how to teach to states, districts, and schools.

Writing

- The ability to write logical arguments based on substantive claims, sound reasoning, and relevant evidence is a cornerstone of the writing standards, with opinion writing---a basic form of argument---extending down into the earliest grades.
- Research---both short, focused projects (such as those commonly required in the workplace) and longer term in depth research---"is emphasized throughout the standards but most prominently in the writing strand since a written analysis and presentation of findings is so often critical.
- Annotated samples of student writing accompany the standards and help establish adequate performance levels in writing arguments, informational/explanatory texts, and narratives in the various grades.

Speaking and Listening

- The standards require that students gain, evaluate, and present increasingly complex information, ideas, and evidence through listening and speaking as well as through media.

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- An important focus of the speaking and listening standards is academic discussion in one-on-one, small-group, and whole-class settings. Formal presentations are one important way such talk occurs, but so is the more informal discussion that takes place as students collaborate to answer questions, build understanding, and solve problems.

Language

- The standards expect that students will grow their vocabularies through a mix of conversations, direct instruction, and reading. The standards will help students determine word meanings, appreciate the nuances of words, and steadily expand their repertoire of words and phrases.
- The standards help prepare students for real life experience at college and in 21st century careers. The standards recognize that students must be able to use formal English in their writing and speaking but that they must also be able to make informed, skillful choices among the many ways to express themselves through language.
- Vocabulary and conventions are treated in their own strand not because skills in these areas should be handled in isolation but because their use extends across reading, writing, speaking, and listening.

Media and Technology

- Just as media and technology are integrated in school and life in the twenty-first century, skills related to media use (both critical analysis and production of media) are integrated throughout the standards.

Key Features of the Standards

Reading: Text complexity and the growth of comprehension

The Reading standards place equal emphasis on the sophistication of what students read and the skill with which they read. Standard 10 defines a grade-by-grade "staircase" of increasing text complexity that rises from beginning reading to the college and career readiness level. Whatever they are reading, students must also show a steadily growing ability to discern more from and make fuller use of text, including making an increasing number of connections among ideas and between texts, considering a wider range of textual evidence, and becoming more sensitive to inconsistencies, ambiguities, and poor reasoning in texts.

Writing: Text types, responding to reading, and research

The Standards acknowledge the fact that whereas some writing skills, such as the ability to plan, revise, edit, and publish, are applicable to many types writing, other skills are more properly defined in terms of specific writing types: arguments, informative/explanatory texts, and narratives. Standard 9 stresses the importance of the writing-reading connection by requiring students to draw upon and write about evidence from literary and informational texts. Because of the centrality of writing to most forms of inquiry, research standards are prominently included in this strand, though skills important to research are infused throughout the document.

Speaking and Listening: Flexible communication and collaboration

Including but not limited to skills necessary for formal presentations, the Speaking and Listening standards require students to develop a range of broadly useful oral communication and interpersonal skills. Students must learn to work together, express and listen carefully to ideas, integrate information from oral, visual, quantitative, and media sources, evaluate what they hear, use media and visual displays strategically to help achieve communicative purposes, and adapt speech to context and task.

Language: Conventions, effective use, and vocabulary

The Language standards include the essential "rules" of standard written and spoken English, but they also approach language as a matter of craft and informed choice among alternatives. The vocabulary standards focus on understanding words and phrases, their relationships, and their nuances and on acquiring new vocabulary, particularly general academic and domain-specific words and phrases.

Appendices A, B, and C

- Appendix A contains supplementary material on reading, writing, speaking and listening, and language as well as a glossary of key terms.
- Appendix B consists of text exemplars illustrating the complexity, quality, and range of reading appropriate for various grade levels with accompanying sample performance tasks.
- Appendix C includes annotated samples demonstrating at least adequate performance in student writing at various grade levels

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Anchor Standards for Reading

The K–5 standards on the following pages define what students should understand and be able to do by the end of each grade. They correspond to the College and Career Readiness (CCR) anchor standards below by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

Key Ideas and Details

1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text.

Craft and Structure

4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
5. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.
6. Assess how point of view or purpose shapes the content and style of a text.

Integration of Knowledge and Ideas

7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.[1]

8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

Range of Reading and Level of Text Complexity
10. Read and comprehend complex literary and informational texts independently and proficiently.

Anchor Standards for Writing

The K–5 standards on the following pages define what students should understand and be able to do by the end of each grade. They correspond to the College and Career Readiness (CCR) anchor standards below by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

Text Types and Purposes
1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

Production and Distribution of Writing
4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

Research to Build and Present Knowledge
7. Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
8. Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

Range of Writing
10. 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 tasks, purposes, and audiences.

Note on range and content in student writing

To build a foundation for college and career readiness, 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 learn to appreciate that a key purpose of writing is to communicate clearly to an external, sometimes unfamiliar audience, and they begin to adapt the form and content of their writing to accomplish a particular task and purpose. They develop the capacity to build knowledge on a subject through research projects and to respond analytically to literary and informational sources. To meet these goals, students must devote significant time and effort to writing, producing numerous pieces over short and extended time frames throughout the year.

Anchor Standards for Speaking and Listening

Comprehension and Collaboration

1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.
3. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.

Presentation of Knowledge and Ideas

4. Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
6. Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.

Note on range and content of student speaking and listening

To build a foundation for college and career readiness, students must have ample opportunities to take part in a variety of rich, structured conversations—as part of a whole class, in small groups, and with a partner. Being productive members of these conversations requires that students contribute accurate, relevant information; respond to and develop what others have said; make comparisons and contrasts; and analyze and synthesize a multitude of ideas in various domains.

New technologies have broadened and expanded the role that speaking and listening play in acquiring and sharing knowledge and have tightened their link to other forms of communication. Digital texts confront students with the potential for continually updated content and dynamically changing combinations of words, graphics, images, hyperlinks, and embedded video and audio.

Anchor Standards for Language

The K–5 standards on the following pages define what students should understand and be able to do by the end of each grade. They correspond to the College and Career Readiness (CCR) anchor standards below by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

Conventions of Standard English

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

Knowledge of Language

3. Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.

Vocabulary Acquisition and Use

4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.
5. Demonstrate understanding of word relationships and nuances in word meanings.
6. Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression.

Note on range and content of student language use

To build a foundation for college and career readiness in language, students must gain control over many conventions of standard English grammar, usage, and mechanics as well as learn other ways to use language to convey meaning effectively. They must also be able to determine or clarify the meaning of grade-appropriate words encountered through listening, reading, and media use; come to appreciate that words have non-literal meanings, shadings of meaning, and relationships to other words; and expand their vocabulary in the course of studying content. The inclusion of Language standards in their own strand should not be taken as an indication that skills related to conventions, effective language use, and vocabulary are unimportant to reading, writing, speaking, and listening; indeed, they are inseparable from such contexts.

ELA Standards for Grade 2

Reading Standards for Literature

Key Ideas and Details

RL.2.1. Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.

RL.2.2. Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.

RL.2.3. Describe how characters in a story respond to major events and challenges.

Craft and Structure

RL.2.4. Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.

RL.2.5. Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.

RL.2.6. Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud.

Integration of Knowledge and Ideas

RL.2.7. Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.

RL.2.8   Not applicable at this level.

RL.2.9. Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures.

Range of Reading and Level of Text Complexity

RL.2.10. By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Reading Standards for Informational Text

Key Ideas and Details

RI.2.1. Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.

RI.2.2. Identify the main topic of a multi-paragraph text as well as the focus of specific paragraphs within the text.

RI.2.3. Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.

Craft and Structure

RI.2.4. Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area.

RI.2.5. Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently.

RI.2.6. Identify the main purpose of a text, including what the author wants to answer, explain, or describe.

Integration of Knowledge and Ideas

RI.2.7. Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.

RI.2.8. Describe how reasons support specific points the author makes in a text.

RI.2.9. Compare and contrast the most important points presented by two texts on the same topic.

Range of Reading and Level of Text Complexity

RI.2.10. By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Reading Standards: Foundational Skills

Phonics and Word Recognition

RF.**2.3.** Know and apply grade-level phonics and word analysis skills in decoding words.

- Distinguish long and short vowels when reading regularly spelled one-syllable words.

- Know spelling-sound correspondences for additional common vowel teams.

- Decode regularly spelled two-syllable words with long vowels.

- Decode words with common prefixes and suffixes.

- Identify words with inconsistent but common spelling-sound correspondences.

- Recognize and read grade-appropriate irregularly spelled words.

Fluency

RF.2.4. Read with sufficient accuracy and fluency to support comprehension.

- 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.

Writing Standards

Text Types and Purposes

W.2.1. Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or section.

W.2.2. Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.

W.2.3. Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure.

Production and Distribution of Writing

W.2.4. (Begins at Grade 3)

W.2.5 With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing.

W.2.6. With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.

Research to Build and Present Knowledge

W.2.7. Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).

W.2.8. Recall information from experiences or gather information from provided sources to answer a question.

W.2.9. Begins in Grade 4

W.2.10 Begins in Grade 3

Speaking and Listening Standards

Comprehension and Collaboration

SL.2.1 Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger

groups.

- Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a

  time about the topics and texts under discussion).

- Build on others' talk in conversations by linking their comments to the remarks of others.

- Ask for clarification and further explanation as needed about the topics and texts under discussion.

SL.2.2. Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.

SL.2.3. 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.

Presentation of Knowledge and Ideas

SL.2.4. Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.

SL.2.5. Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when

appropriate to clarify ideas, thoughts, and feelings.

SL.2.6. Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

Language Standards

Conventions of Standard English

L.2.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

- Use collective nouns (e.g., group).

- Form and use frequently occurring irregular plural nouns (e.g., feet, children, teeth, mice, fish).

- Use reflexive pronouns (e.g., myself, ourselves).

- Form and use the past tense of frequently occurring irregular verbs (e.g., sat, hid, told).

- Use adjectives and adverbs, and choose between them depending on what is to be modified.

- Produce, expand, and rearrange complete simple and compound sentences (e.g., The boy watched the movie; The little boy watched the movie; The action movie was watched by the little boy).

L..2.2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

- Capitalize holidays, product names, and geographic names.

- Use commas in greetings and closings of letters.

- Use an apostrophe to form contractions and frequently occurring possessives.

- Generalize learned spelling patterns when writing words (e.g., cage → badge; boy → boil).

- Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.

Knowledge of Language

L.2.3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.

- Compare formal and informal uses of English.

Vocabulary Acquisition and Use

L.2.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 2 reading and content, choosing flexibly from an array of strategies.

- Use sentence-level context as a clue to the meaning of a word or phrase.

- Determine the meaning of the new word formed when a known prefix is added to a known word (e.g., happy/unhappy, tell/retell).

- Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., addition, additional).

- Use knowledge of the meaning of individual words to predict the meaning of compound words (e.g., birdhouse, lighthouse, housefly; bookshelf, notebook, bookmark).

- Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases.

5. Demonstrate understanding of word relationships and nuances in word meanings.

- Identify real-life connections between words and their use (e.g., describe foods that are spicy or juicy).

- Distinguish shades of meaning among closely related verbs (e.g., toss, throw, hurl) and closely related adjectives (e.g., thin, slender, skinny, scrawny).

6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., When other kids are happy that makes me happy).

ELA Standards for Grade 3

Reading Standards for Literature

Key Ideas and Details

RL.3.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

RL.3..2. Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text.

RL.3..3. Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.

B. Craft and Structure

RL.3..4. Determine the meaning of words and phrases as they are used in a text, distinguishing literal from non-literal language.

RL.3.5. Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as chapter, scene, and stanza; describe how each successive part builds on earlier sections.

RL.3..6. Distinguish their own point of view from that of the narrator or those of the characters.

Integration of Knowledge and Ideas

RL.3.7. 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).

RL.3.9. Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series).

Range of Reading and Level of Text Complexity

RL.3..RL.10. By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 2–3 text complexity band independently and proficiently.

Reading Standards for Informational Text

Key Ideas and Details

RI.3.1. Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

RI.3.2. Determine the main idea of a text; recount the key details and explain how they support the main idea.

RI.3. Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.

Craft and Structure

RI.3.4. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 3 topic or subject area*.

RI.3.5. Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.

RI.3.6. Distinguish their own point of view from that of the author of a text.

Integration of Knowledge and Ideas

RI.3.7. Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).

RI.3.8. Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).

RI.3.9. Compare and contrast the most important points and key details presented in two texts on the same topic.

Range of Reading and Level of Text Complexity

RI.3.10. By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 2–3 text complexity band independently and proficiently.

Reading Standards: Foundational Skills

Phonics and Word Recognition

RF.3.3 Know and apply grade-level phonics and word analysis skills in decoding words.

- Identify and know the meaning of the most common prefixes and derivational suffixes.
- Decode words with common Latin suffixes.
- Decode multi-syllable words.
- Read grade-appropriate irregularly spelled words.

Fluency

RF.3.4 . Read with sufficient accuracy and fluency to support comprehension.

- Read on-level text with purpose and understanding.
- Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings
- Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Writing Standards

Text Types and Purposes

W.3.1 Write opinion pieces on topics or texts, supporting a point of view with reasons.

- Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons.
- Provide reasons that support the opinion.
- Use linking words and phrases (e.g., *because*, *therefore*, *since*, *for example*) to connect opinion and reasons.
- Provide a concluding statement or section.

W.3.2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

- Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.

- Develop the topic with facts, definitions, and details.

- Use linking words and phrases (e.g., *also*, *another*, *and*, *more*, *but*) to connect ideas within categories of information.

- Provide a concluding statement or section.

W.3.3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.

- Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally.

- Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations.

- Use temporal words and phrases to signal event order.

- Provide a sense of closure.

Production and Distribution of Writing

W.3.4. With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose.

W.3.5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.

W.3.6. With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.

Research to Build and Present Knowledge

W.3.7 Conduct short research projects that build knowledge about a topic.

W.3.8. Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.

Range of Writing

W.3.10. 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.

Speaking and Listening Standards

Comprehension and Collaboration

SL.3.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 3 topics and texts*, building on others' ideas and expressing their own clearly.

- Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
- Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
- Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.
- Explain their own ideas and understanding in light of the discussion.

SL.3.2. Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

SL.3.3. Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.

Presentation of Knowledge and Ideas

SL.3.4. Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.

SL.3.5. 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.

SL.3.6. Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

Language Standards

Conventions of Standard English

L.3.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

- Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences.
- Form and use regular and irregular plural nouns.
- Use abstract nouns (e.g., *childhood*).
- Form and use regular and irregular verbs.
- Form and use the simple (e.g., *I walked; I walk; I will walk*) verb tenses.
- Ensure subject-verb and pronoun-antecedent agreement.
- Form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified.
- Use coordinating and subordinating conjunctions.
- Produce simple, compound, and complex sentences.

L.3.2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

- Capitalize appropriate words in titles.
- Use commas in addresses.
- Use commas and quotation marks in dialogue.
- Form and use possessives.
- Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words (e.g., *sitting, smiled, cries, happiness*).
- Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing words.
- Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.

Knowledge of Language

L.3.3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.

- Choose words and phrases for effect.
- Recognize and observe differences between the conventions of spoken and written standard English.

Vocabulary Acquisition and Use

L.3.4. Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on *grade 3 reading and content,* choosing flexibly from a range of strategies.

- Use sentence-level context as a clue to the meaning of a word or phrase.
- Determine the meaning of the new word formed when a known affix is added to a known word (e.g., *agreeable/disagreeable, comfortable/uncomfortable, care/careless, heat/preheat*).
- Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., *company, companion*).
- Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases.

L.3.5. Demonstrate understanding of word relationships and nuances in word meanings.

- Distinguish the literal and non-literal meanings of words and phrases in context (e.g., *take steps*).
- Identify real-life connections between words and their use (e.g., describe people who are *friendly* or *helpful*).
- Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., *knew, believed, suspected, heard, wondered*).

L.3.6. Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., *After dinner that night we went looking for them*).

ELA Standards – Grade 4

Reading Standards for Literature

Key Ideas and Details

RL.4. 1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

RL.4. 2. Determine a theme of a story, drama, or poem from details in the text; summarize the text.

RL.4. 3. Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions).

Craft and Structure

RL.4. 4. Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Herculean).

RL.4. 5. Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text.

RL.4. 6. Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations.

Integration of Knowledge and Ideas

RL.4. 7. 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.

RL.4. 9. Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures.

Range of Reading and Level of Text Complexity

RL.4. 10. By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Reading Standards for Informational Text

Key Ideas and Details

RI.4.1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

RI.4.2. Determine the main idea of a text and explain how it is supported by key details; summarize the text.

RI.4.3. Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.

Craft and Structure

RI.4.4. Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a *grade 4 topic or subject area*.

RI.4.5. Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.

RI.4.6. Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.

Integration of Knowledge and Ideas

RI.4.7. Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.

RI.4.8. Explain how an author uses reasons and evidence to support particular points in a text.

RI.4.9. Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.

Range of Reading and Level of Text Complexity

RI.4.10. By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Reading Standards: Foundational Skills

Phonics and Phonemic Awareness

RF4.3. Know and apply grade-level phonics and word analysis skills in decoding words.

- Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.

Fluency

RF4.4. Read with sufficient accuracy and fluency to support comprehension.

- Read on-level text with purpose and understanding.
- Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.
- Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Writing Standards

Text Types and Purposes

W.4.1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information.

- Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer's purpose.

- Provide reasons that are supported by facts and details.

- Link opinion and reasons using words and phrases (e.g., *for instance*, *in order to*, *in addition*).

- Provide a concluding statement or section related to the opinion presented.

W.4.2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

- Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.

- Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.

- Link ideas within categories of information using words and phrases (e.g., *another*, *for example*, *also*, *because*).

- Use precise language and domain-specific vocabulary to inform about or explain the topic.

- Provide a concluding statement or section related to the information or explanation presented.

W.4.3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.

- Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.

- Use dialogue and description to develop experiences and events or show the responses of characters to situations.

- Use a variety of transitional words and phrases to manage the sequence of events.

- Use concrete words and phrases and sensory details to convey experiences and events precisely.

- Provide a conclusion that follows from the narrated experiences or events.

Production and Distribution of Writing

W.4.4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.

W.4.5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.

W.4.6. With some guidance and support from adults, 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.

Research to Build and Present Knowledge

W.4.7. Conduct short research projects that build knowledge through investigation of different aspects of a topic.

W.4.8. 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.

W.4.9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

- Apply *grade 4 Reading standards* to literature (e.g., "Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character's thoughts, words, or actions].").

- Apply *grade 4 Reading standards* to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text").

Range of Writing

W.4.10. 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.

Speaking and Listening Standards

Comprehension and Collaboration

SL.4.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 4 topics and texts*, building on others' ideas and expressing their own clearly.

- Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
- Follow agreed-upon rules for discussions and carry out assigned roles.
- Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.
- Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.

SL.4..2. Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

SL.4..3. Identify the reasons and evidence a speaker provides to support particular points.

Presentation of Knowledge and Ideas

SL.4.4. 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 at an understandable pace.

SL.4.5. Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.

SL.4.6. Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation.

Language Standards

Conventions of Standard English

L.4.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

- Use relative pronouns (*who, whose, whom, which, that*) and relative adverbs (*where, when, why*).

- Form and use the progressive (e.g*., I was walking; I am walking; I will be walking*) verb tenses.

- Use modal auxiliaries (e.g., *can, may, must*) to convey various conditions.

- Order adjectives within sentences according to conventional patterns (e.g., *a small red bag* rather than *a red small bag*).

- Form and use prepositional phrases.

- Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.

- Correctly use frequently confused words (e.g., *to, too, two; there, their*).

L.4.2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

- Use correct capitalization.

- Use commas and quotation marks to mark direct speech and quotations from a text.

- Use a comma before a coordinating conjunction in a compound sentence.

- Spell grade-appropriate words correctly, consulting references as needed.

Knowledge of Language

L.4.3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.

- Choose words and phrases to convey ideas precisely.

- Choose punctuation for effect.

- Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion).

Vocabulary Acquisition and Use

L.4.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 4 reading and content,* choosing flexibly from a range of strategies.

- Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase.
- Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *telegraph, photograph, autograph*).
- Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.

L.4.5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.

- Explain the meaning of simple similes and metaphors (e.g., *as pretty as a picture*) in context.
- Recognize and explain the meaning of common idioms, adages, and proverbs.
- Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms).

L.4.6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g., *quizzed, whined, stammered*) and that are basic to a particular topic (e.g., *wildlife, conservation,* and *endangered* when discussing animal preservation).

Measuring Text Complexity

Qualitative evaluation of the text

- **Levels of meaning, structure, language conventionality and clarity, and knowledge demands**

Quantitative evaluation of the text

- **Readability measures and other scores of text complexity**

Matching reader to text and task

- **Reader variables (such as motivation, knowledge, and experiences) and task variables (such as purpose and the complexity generated by the task assigned and the questions posed)**

Students in K–5 apply the Reading standards to the following range of text types, with texts selected from a broad range of cultures and periods.

Literature			Informational Text
Stories	**Dramas**	**Poetry**	**Literary Nonfiction and Historical, Scientific, and Technical Texts**
Includes children's adventure stories, folktales, legends, fables, fantasy, realistic fiction, and myth	Includes staged dialogue and brief familiar scenes	Includes nursery rhymes and the subgenres of the narrative poem, limerick, and free verse poem	Includes biographies and autobiographies; books about history, social studies, science, and the arts; technical texts, including directions, forms, and information displayed in graphs, charts, or maps; and digital sources on a range of topics

Texts Illustrating the Complexity, Quality, & Range of Student Reading 2-5

	Literature: Stories, Drama, Poetry	Informational Texts: Literary Nonfiction and Historical, Scientific, and Technical Texts
2-3	- Who Has Seen the Wind?" by Christina G. Rossetti (1893) *Charlotte's Web* by E. B. White (1952)* *Sarah, Plain and Tall* by Patricia MacLachlan (1985) *Tops and Bottoms* by Janet Stevens (1995) - P*oppleton in Winter* by Cynthia Rylant, illustrated by Mark Teague (2001)	*A Medieval Feast* by Aliki (1983) *From Seed to Plant* by Gail Gibbons (1991) *The Story of Ruby Bridges* by Robert Coles (1995)* *A Drop of Water: A Book of Science and Wonder* by Walter Wick (1997) *Moonshot: The Flight of Apollo 11* by Brian Floca (2009)
4-5	*Alice's Adventures in Wonderland* by Lewis Carroll (1865) "Casey at the Bat" by Ernest Lawrence Thayer (1888) *The Black Stallion* by Walter Farley (1941) "Zlateh the Goat" by Isaac Bashevis Singer (1984) *Where the Mountain Meets* the Moon by Grace Lin (2009)	*Discovering Mars: The Amazing Story of the Red Planet* by Melvin Berger (1992) *Hurricanes: Earth's Mightiest Storms* by Patricia Lauber (1996) *A History of US* by Joy Hakim (2005) *Horses* by Seymour Simon (2006) *Quest for the Tree Kangaroo: An Expedition to the Cloud Forest of New Guinea* by Sy Montgomery (2006)

Note:

Given space limitations, the illustrative texts listed above are meant only to show individual titles that are representative of a wide range of topics and genres. (See Appendix B of the Common Core Standards for excerpts of these and other texts illustrative of K–5 text complexity, quality, and range.) At a curricular or instructional level, within and across grade levels, texts need to be selected around topics or themes that generate knowledge and allow students to study those topics or themes in depth. On the next page is an **example** of progressions of texts building knowledge across grade levels.

Staying on Topic Within a Grade & Across Grades

Building knowledge systematically in English language arts is like giving children various pieces of a puzzle in each grade that, over time, will form one big picture. At a curricular or instructional level, texts—within and across grade levels—need to be selected around topics or themes that systematically develop the knowledge base of students. Within a grade level, there should be an adequate number of titles on a single topic that would allow children to study that topic for a sustained period. The knowledge children have learned about particular topics in early grade levels should then be expanded and developed in subsequent grade levels to ensure an increasingly deeper understanding of these topics. Children in the upper elementary grades will generally be expected to read these texts independently and reflect on them in writing. However, children in the early grades (particularly K–2) should participate in rich, structured conversations with an adult in response to the written texts that are read aloud, *orally* comparing and contrasting as well as analyzing and synthesizing, in the manner called for by the *Standards*.

Preparation for reading complex informational texts should begin at the very earliest elementary school grades. What follows is one example that uses domain-specific nonfiction titles across grade levels to illustrate how curriculum designers and classroom teachers can infuse the English language arts block with rich, age-appropriate content knowledge and vocabulary in history/social studies, science, and the arts. Having students listen to informational read-alouds in the early grades helps lay the necessary foundation for students' reading and understanding of increasingly complex texts on their own in subsequent grades.

This is only a sample. Full chart can be found on Standards web site.

Exemplar Texts on a Topic Across Grades	2-3	4-5
The Human Body Students can begin learning about the human body starting in kindergarten and then review and extend their learning during each subsequent grade.	**Digestive and excretory systems** *What Happens to a Hamburger* by Paul Showers (1985) *The Digestive System* by Christine Taylor-Butler (2008) *The Digestive System* by Rebecca L. Johnson (2006) *The Digestive System* by Kristin Petrie (2007) **Muscular, skeletal, and nervous systems** *The Mighty Muscular and Skeletal Systems* Crabtree Publishing (2009) *Muscles* by Seymour Simon (1998) *Bones* by Seymour Simon (1998) *The Nervous System* by Joelle Riley (2004)	**Circulatory system** *The Heart* by Seymour Simon (2006) *The Heart and Circulation* by Carol Ballard (2005) *The Circulatory System* by Kristin Petrie (2007) *The Amazing Circulatory System* by John Burstein (2009) **Respiratory system** *The Lungs* by Seymour Simon (2007) *The Respiratory System* by Susan Glass (2004) **Endocrine system** *The Endocrine System* by Rebecca Olien (2006)

Implementation Guide – Grade 3 ELA

COMMON CORE STANDARDS: ELA

Implementing the Common Core Standards may seem to be a daunting task, however, the ELA Curriculum Committee has created four sample guidelines/templates to introduce you to the standards. We have provided a guideline for each of the four types of writing prescribed for each grade. You will see that we have correlated Reading Standards with each Writing piece. These guidelines are meant to be a starting point and while they are comprehensive they do not include every standard. Our intent is that teachers will plug-in other standards as needed. The book companies have created correlations to the Common Core Standards so you will have them to use as well, and you will have the flexibility to add ELA standards from each category (Reading, Writing, Speaking and Listening, and Language) depending on the theme or story.

Coding: ELA.3.A.1 refers to English Language Arts –Grade 3 Topic A – Skill 1

Opinion Piece Grade 3	Writing Standards: ELA.2.K Opinion	Reading Standards: ELA.2.G Integration of Knowledge and Ideas
Essential Questions *What should I be able to answer?* *What guides my thinking?*	What is the topic of this opinion piece? What are the reasons that support the opinion? How do we state an opinion? What is a fact? How do we connect reasons to opinion? Can they use key and linking words to connect opinion and reasons? Can they make an argument reflecting their opinion? Can they write a supportive concluding statement?	A1 Ask and answer questions to demonstrate understanding of text, referring explicitly to the text as a basis for the answers

Assessment *What will I be expected to know, understand, and be able to do in order to demonstrate my learning?*	Write an opinion piece on topics or texts, supporting a point of view with reasons. Create T-Charts labeling the left column Opinion and the right column Reasons. Provide reasons that support the opinion	I.3 Know and apply grade-level phonics and word analysis skills in decoding words. J4 Read with sufficient accuracy and fluency to support comprehension.
Skills *What skills do I need to have in order to answer the essential questions?*	K.1 Write an opinion piece in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (because, and, also) to connect opinion and reasons, and provide a concluding statement P2 Demonstrate command of the conventions of standard English when writing Be able to complete organizers categorized by Topic, Opinion, Statement, and Reasons Be able to provide reasons that are supported by facts and details Link opinion and reasons using words and phrases	E1 Ask and answer questions to demonstrate understanding of text, referring explicitly to the text as the basis for the answer E2- Identify main topic E3- Describe the relationship between a series of events and cause and effects F4-Determine the connection between a series of scientific ideas or concepts F5 Know and use various text features F6 Identify the main purpose of the text G7 Explain how specific diagrams contribute to and clarify a text. G8 Describe how reasons support specific points; G9 Compare and contrast the most important points and key details presented in two texts on the same topic. J2- Read on-level text with purpose and understanding P1 Demonstrate command of the standard English grammar when speaking Q3- Use knowledge of language and its conventions when reading.

Content *What content do I need to know in order to answer the essential questions?*	Identify the topic. Read, interrupt and state your opinion. Recognize the difference between facts and opinion. Use key words to connect opinions and state reasons. Translate the facts into meaningful information	E.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers .
Integration of Learning *How does this learning connect to my other areas (subjects) of learning?*	Know and apply grade-level phonics and word analysis skills. Recall information from experiences or gather information from provided sources to answer a question. (W.3.4) With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. (W.3.5) With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (W.3.6) Use technology to produce and publish writing as well as to interact and collaborate with others	Read and comprehend literature including-history/ social studies and science (RL3.4) Determine the meaning of words and phrases as they are used in a text, (RL3.6) Distinguish their own point of view from that of the narrator or those of the characters
Tools for Learning *Which tools will I use that will assist me in my learning?*	Digital resources Reference materials Primary sources	Book, News Magazines, Video Clips from United Streaming and various educational sources

Which 21st Century Skills are woven into this standard?   __Critical Thinking/Problem Solving   __Collaboration
                                                                                                    ___Communications   ___Creativity/Innovation
What level of rigor will I be using? (A, C)_____   What level of relevance will I be using?_____ (B,D)

Narratives Grade 3	Writing Standards: ELA Grade 3 K.3 Text Types-Narratives and Purposes	Reading Standards: ELA Grade 2 K.3-Types-Narrative Integration of Knowledge and Ideas
Essential Questions *What should I be able to answer?* *What guides my thinking?*	How can you write a narrative? How can you recount an event or short sequence of events? Did I include details to describe the action? Can I describe the characters thoughts and feelings? Can I create the problem and solution? How do organize my thoughts in order? How do I write a summary? What details do I want to include? Did I provide a sense of closure? Can I complete a graphic organizer listing the main ideas?	Do I understand the story elements such as who, what, when, why, and how? Can I identify the main topic of a multi-paragraph as well as the specific paragraphs within the text? Can I identify the main purpose of a text?
Assessment *What will I be expected to know, understand, and be able to do in order to demonstrate my learning?*	Gather information. Write list. Organize the list. Write a short story that contain the following elements; beginning, middle, ending, action details, description of thoughts and feelings, and words that signal order of events. Share information with classmates. Completed report and illustrate	Ask and answer such questions as who, what, when, why, and how to demonstrate understanding of key details in a text. Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral Describe how characters in a story respond to major events and challenges.

Skills *What skills do I need to have in order to answer the essential questions?*	Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences I1- Know and apply grade- level phonics and word analysis skills in decoding words. I2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. Q3 Use knowledge of language and its conventions when writing R4 Determine or clarify the meaning on unknown and multiple-meaning words and phrases R5 Demonstrate understanding of word relationships and nuances in word meaning R6 Use words and phrases acquired through conversation, reading and being read to, and responding to texts including adjectives and adverbs F4 Determine the meaning of words and phrases F6 Identify the main purpose	,A1 Ask and answer questions as who, what, where, when, why, and, how of story details. F6 Identify the main purpose of a text G8 Describe how reasons support specific points J2- Read with sufficient accuracy and fluency to support comprehension

| Content
What content do I need to know in order to answer the essential questions? | Read and interpret various stories. Apply writing skills. (W.3.3) Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences (W.3.3b) Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations (W.3.3c) Use temporal words and phrases to signal event order (W.3.3d) Provide a sense of closure | Reading Anthologies Understand the topic. (RL.3.2) Recount stories including fables, folktales, and myths from diverse culture; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text (RL.3.3) Describe characters in a story and explain how their actions contribute to the sequence of events

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Integration of Learning *How does this learning connect to my other areas (subjects) of learning?*	Content area topics- Science/ Social Studies/ Religion/ Math; Know and apply grade-level phonics and word analysis skills. Recall information from experiences or gather information from provided sources to answer a question. (W.3.4) With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. (W.3.5) With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (W.3.6) Use technology to produce and publish writing as well as to interact and collaborate with others	Read and comprehend various types of literature. RL3.6) Distinguish their own point of view from that of the narrator or those of the characters RL3.4) Determine the meaning of words and phrases as they are used in a text,
Tools for Learning *Which tools will I use that will assist me in my learning?*	Technology to produce and publish; brainstorming, graphic organizers, logs, journals	Examples of good narratives. Video of stories

Which 21st Century Skills are woven into this standard?   __Critical Thinking/Problem Solving   __Collaboration
                                                                                          ____Communications   ____Creativity/Innovation
What level of rigor will I be using? (A, C)_____   What level of relevance will I be using?_____ (B,D)

Write Informative or Explanatory text Grade 3	Writing Standards: ELA.2.K Informative/Explanatory Text and Purposes	Reading Standards: ELA. 2K.2 Informative/Explanatory Text
Essential Questions *What should I be able to answer? What guides my thinking?*	What is an information paragraph? What is the topic of my paragraph? How do I use facts and definitions to develop an information paragraph? How do I write a closing statement?	Ask and answer questions as who, what, where, when, why, and how to demonstrate understanding of key details in text Identify the main topic of a multi paragraphs Describe the connection between a series of historical events or scientific ideas or concepts
Assessment *What will I be expected to know, understand, and be able to do in order to demonstrate my learning?*	Gather information. Write list. Organize the list. Write an information paragraph. Share information with classmates. Completed report and illustrate	Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area Know and use various text features to locate key facts or information in a text.

Skills *What skills do I need to have in order to answer the essential questions?*	K2-Write informative text in which they introduce a topic, use facts and definitions to develop points and provide a concluding statement or section Use outlines to identify topics, supporting points, and conclusions of informational pieces L4 Focus on a topic and strengthen writing as needed by revising and editing L5 Use a variety of digital tools to produce and publish writing, including peer collaboration M6 Participate in shared research and writing projects Students create graphic organizers with 3 columns labeled Facts, Definition, Details and record the topics above the heading. With partners, students complete organizers using relevant resources.	E1 Ask and answer questions as who, what, where, when, why, and, how of story details. E2- Identify main topic F4-Determine the connection between a series of scientific ideas or concepts F5 Know and use various text features F6 Identify the main purpose of the text G7 Explain how specific diagrams contribute to and clarify a text. G8 Describe how reasons support specific points; J2- Read on-level text with purpose and understanding P1 Demonstrate command of the standard English grammar when speaking Q3- Use knowledge of language and its conventions when reading.
Content *What content do I need to know in order to answer the essential questions?*	Develop the topic with facts, definitions, and connect details Use linking words and phrases (also, another, and, more, but) to connect ideas within categories of information. What is the meaning of the content Organize content information	Understand the topic. Translate the facts into meaningful information

Integration of Learning *How does this learning connect to my other areas (subjects) of learning?*	All subjects require comprehensive understanding and translation such as Science/ Social Studies/ Religion	All subjects require comprehensive reading abilities
Tools for Learning *Which tools will I use that will assist me in my learning?*	Digital resources Reference materials Various Leveled Reading texts	Digital resources; reading texts and reference materials Graphic Organizer.

Which 21st Century Skills are woven into this standard? ___Critical Thinking/Problem Solving ___Collaboration
  ____Communications ____Creativity/Innovation
What level of rigor will I be using? (A, C)_____ What level of relevance will I be using?_____ (B,D)

Research Project Grade 3	Writing Standards: ELA.3.M Research to Build and Present Knowledge	Reading Standards: ELA.3.E Key Ideas and Details
Essential Questions *What should I be able to answer?* *What guides my thinking?*	How do I examine a topic and convey my ideas and information clearly? How do I develop a topic with facts and details? How do I take notes and sort evidence into teacher provided categories? Did I revise my piece to make it clearer for the audience?	What is research? What is my purpose for writing? How do I find information in the library or on line? Can I determine the main idea of a text; recount the key details and explain how they support the main idea? Can I describe the logical connections in a text? (e.g. comparison, cause/effect/ items in a sequence)
Assessment *What will I be expected to know, understand, and be able to do in order to demonstrate my learning?*	Completing graphic organizer Complete an outline Craft a 1 to 3 paragraph response Peer review and editing	Discuss main idea Discuss how key details support main idea Compare and contrast most important points and details from multiple sources on the same topic

| Skills
What skills do I need to have in order to answer the essential questions? | ELA.3.M.7   Conduct short research projects that build knowledge about a topic

ELA.3.M.8   Recall information from experiences or gather information from print and digital sources; take brief notes and sort evidence into provided categories

ELA.3.K.2.a Introduce a topic and group related information together; include illustrations when useful to aiding comprehension

ELA.3.K.2.b Develop the topic with facts, definitions, and details

ELA.3.K.2.c Use linking words and phrases to connect ideas within categories of information

ELA.3.K.2.d Provide a concluding statement or section

ELA.3.L.4   With guidance and support, produce writing in which the development and organization are appropriate to task and purpose   ELA.3.L.5   With guidance and support, develop and strengthen writing as needed by planning, revising, and editing

ELA.3.L.6   With guidance and support, use technology to produce and publish writing | ELA.3,E.1   Ask and answer questions to demonstrate understanding of a text

ELA.3,E.2   Determine the main idea of a text; recount the key details and explain how they support the main idea

ELA.3,E.3   Describe the relationship between a series of *historical events, scientific ideas or concepts, or steps in technical procedures in a text,* using language that pertains to time, sequence, and cause/effect.

ELA.3.G.9   Compare and contrast most important points and key details from two texts on same topic

ELA.3.O.1   Engage effectively in a range of collaborative discussion, building on others' ideas and expressing their own clearly |

Content *What content do I need to know in order to answer the essential questions?*	Chart or graph information Crafting a paragraph with a topic sentence, supporting details, and a conclusion Crafting a multi-paragraph essay with introduction, body with supporting details, and a conclusion	Read and understand information from multiple print or digital sources Ask and answer who, what, where, when, why, and how to demonstrate understanding of key details Ability to comprehend materials and reflect on them
Integration of Learning *How does this learning connect to my other areas (subjects) of learning?*	Does the topic lend itself to collaboration with other content areas? Social Studies? Science? Religion? Use Technology to research, produce and publish writings as well as to interact and collaborate with others on the same topic.	Does the topic lend itself to collaboration with other content areas? Social Studies? Science? Religion? Explain how bill becomes a law Look into the natural habitat of birds on the New Jersey shore. How can we make sure that the birds are protected?
Tools for Learning *Which tools will I use that will assist me in my learning?*	Use of Noodle tools for gathering information and sources Multimedia print Encyclopedia, web 2.0 Primary sources depending on the topic given	Reference materials Primary sources Digital resources

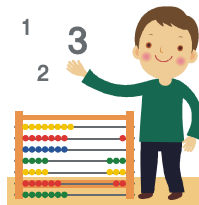Which 21st Century Skills are woven into this standard? ___Critical Thinking/Problem Solving ___Collaboration
___Communications ___Creativity/Innovation
What level of rigor will I be using? (A, C)_____ What level of relevance will I be using?_____ (B,D)

Mathematics

Grade 3

Common Core State Standards – Grade Two
Common Core State Standards – Grade Three
Common Core State Standards – Grade Four
Implementation Guide – Grade Three

Key Points In Mathematics

- The K-5 standards provide students with a *solid foundation in whole numbers, addition, subtraction, multiplication, division, fractions and decimals*—which help young students build the foundation to successfully apply more demanding math concepts and procedures, and move into applications.
- In kindergarten, the standards follow successful international models and recommendations from the National Research Council's Early Math Panel report, by focusing kindergarten work on the number core: learning how numbers correspond to quantities, and learning how to put numbers together and take them apart (the beginnings of addition and subtraction).
- The K-5 standards build on the best state standards to provide detailed guidance to teachers on how to navigate their way through knotty topics such as *fractions, negative numbers, and geometry*, and do so by maintaining a continuous progression from grade to grade.
- The standards stress not only procedural skill but also conceptual understanding, to make sure students are learning and absorbing the critical information they need to succeed at higher levels - rather than the current practices by which many students learn enough to get by on the next test, but forget it shortly thereafter, only to review again the following year.
- Having built a strong foundation K-5, students can do hands on learning in geometry, algebra and probability and statistics. Students who have completed 7th grade and mastered the content and skills through the 7th grade will be *well-prepared for algebra* in grade 8.
- The middle school standards are robust and provide a coherent and rich *preparation for high school mathematics*.
- The 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.
- The high school standards set a *rigorous definition of college and career readiness*, by helping students develop a depth of understanding and ability to apply mathematics to novel situations, as college students and employees regularly do.
- The high school standards *emphasize mathematical modeling*, the use of mathematics and statistics to analyze empirical situations, understand them better, and improve decisions. For example, the standards state: Modeling links classroom mathematics and statistics to everyday life, work, and decision-making. It is the process of choosing and using appropriate mathematics and statistics to analyze empirical situations, to understand them better, and to improve decisions. Quantities and their relationships in physical, economic, public policy, social and everyday situations can be modeled using mathematical and statistical methods. When making mathematical models, technology is valuable for varying assumptions, exploring consequences, and comparing predictions with data.

Standards for Mathematical Practice

The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important "processes and proficiencies" with longstanding importance in mathematics education. The first of these are the NCTM process standards of problem solving, reasoning and proof, communication, representation, and connections. The second are the strands of mathematical proficiency specified in the National Research Council's report *Adding It Up*: adaptive reasoning, strategic competence, conceptual understanding (comprehension of mathematical concepts, operations and relations), procedural fluency (skill in carrying out procedures flexibly, accurately, efficiently and appropriately), and productive disposition (habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one's own efficacy).

1 Make sense of problems and persevere in solving them.

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.

2 Reason abstractly and quantitatively.

Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems\involving quantitative relationships: the ability to *decontextualize*—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to *contextualize*, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.

3 Construct viable arguments and critique the reasoning of others.

Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.

4 Model with mathematics.

Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a

student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.

5 Use appropriate tools strategically.

Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.

6 Attend to precision.

Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.

7 Look for and make use of structure.

Mathematically proficient students look closely to discern a pattern or structure. Young students, for example, might notice that three and seven more is the same amount as seven and three more, or they may sort a collection of shapes according to how many sides the shapes have. Later, students will see 7 × 8 equals the well remembered 7 × 5 + 7 × 3, in preparation for learning about the distributive property. In the expression $x^2 + 9x + 14$, older students can see the 14 as 2 × 7 and the 9 as 2 + 7. They recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects or as being composed of several objects. For example, they can see $5 - 3(x - y)2$ as 5 minus a positive number times a square and use that to realize that its value cannot be more than 5 for any real numbers x and y.

8 Look for and express regularity in repeated reasoning.

Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, middle school students might abstract the equation $(y - 2)/(x - 1) = 3$. Noticing the regularity in the way terms cancel when expanding $(x - 1)(x + 1)$, $(x - 1)(x^2 + x + 1)$, and $(x - 1)(x^3 + x^2 + x + 1)$ might lead them to the general formula for the sum of a geometric series. As they work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.

Connecting the Standards for Mathematical Practice to the Standards for Mathematical Content

The Standards for Mathematical Practice describe ways in which developing student practitioners of the discipline of mathematics increasingly ought to engage with the subject matter as they grow in mathematical maturity and expertise throughout the elementary, middle and high school years. Designers of curricula, assessments, and professional development should all attend to the need to connect the mathematical practices to mathematical content in mathematics instruction.

The Standards for Mathematical Content are a balanced combination of procedure and understanding. Expectations that begin with the word "understand" are often especially good opportunities to connect the practices to the content. Students who lack understanding of a topic may rely on procedures too heavily. Without a flexible base from which to work, they may be less likely to consider analogous problems, represent problems coherently, justify conclusions, apply the mathematics to practical situations, use technology mindfully to work with the mathematics, explain the mathematics accurately to other students, step back for an overview, or deviate from a known procedure to find a shortcut. In short, a lack of understanding effectively prevents a student from engaging in the mathematical practices. In this respect, those content standards which set an expectation of understanding are potential "points of intersection" between the Standards for Mathematical Content and the Standards for Mathematical Practice. These points of intersection are intended to be weighted toward central and generative concepts in the school mathematics curriculum that most merit the time, resources, innovative energies, and focus necessary to qualitatively improve the curriculum, instruction, assessment, professional development, and student achievement in mathematics.

Mathematics Standards

Grade 2

In Grade 2, instructional time should focus on four critical areas: (1) extending understanding of base-ten notation; (2) building fluency with addition and subtraction; (3) using standard units of measure; and (4) describing and analyzing shapes.

- 1. Students extend their understanding of the base-ten system. This includes ideas of counting in fives, tens, and multiples of hundreds, tens, and ones, as well as number relationships involving these units, including comparing. Students understand multi-digit numbers (up to 1000) written in base-ten notation, recognizing that the digits in each place represent amounts of thousands, hundreds, tens, or ones (e.g., 853 is 8 hundreds + 5 tens + 3 ones).

- 2. Students use their understanding of addition to develop fluency with addition and subtraction within 100. They solve problems within 1000 by applying their understanding of models for addition and subtraction, and they develop, discuss, and use efficient, accurate, and generalizable methods to compute sums and differences of whole numbers in base-ten notation, using their understanding of place value and the properties of operations. They select and accurately apply methods that are appropriate for the context and the numbers involved to mentally calculate sums and differences for numbers with only tens or only hundreds.

- 3. Students recognize the need for standard units of measure (centimeter and inch) and they use rulers and other measurement tools with the understanding that linear measure involves an iteration of units. They recognize that the smaller the unit, the more iterations they need to cover a given length.

- 4. Students describe and analyze shapes by examining their sides and angles. Students investigate, describe, and reason about decomposing and combining shapes to make other shapes. Through building, drawing, and analyzing two- and three-dimensional shapes, students develop a foundation for understanding area, volume, congruence, similarity, and symmetry in later grades.

Grade 2 Overview

- **Operations and Algebraic Thinking** .
  - o Represent and solve problems involving addition and subtraction.
  - o Add and subtract within 20.
  - o Work with equal groups of objects to gain foundations for multiplication.

- **Number and Operations in Base Ten** .
  - o Understand place value.
  - o Use place value understanding and properties of operations to add and subtract.

- **Measurement and Data** .
  - o Measure and estimate lengths in standard units.
  - o Relate addition and subtraction to length.
  - o Work with time and money.
  - o Represent and interpret data.

- **Geometry** .
  - o Reason with shapes and their attributes.
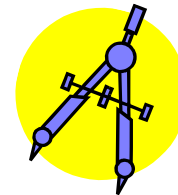
Operations and Algebraic Thinking

Represent and solve problems involving addition and subtraction.

2.OA.1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.

Add and subtract within 20.

2.OA.2. Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.

Work with equal groups of objects to gain foundations for multiplication.

2.OA.3. Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.

2.OA.4. Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.

Number and Operations in Base Ten

Understand place value.

2..NBT.1. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:

- 100 can be thought of as a bundle of ten tens — called a "hundred."

- The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).

2..NBT.2. Count within 1000; skip-count by 5s, 10s, and 100s.

2..NBT.3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.

2..NBT.4. Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.

Use place value understanding and properties of operations to add and subtract.

2..NBT.5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

2..NBT.6. Add up to four two-digit numbers using strategies based on place value and properties of operations.

2..NBT.7. Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.

2..NBT.8. Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.

2..NBT.9. Explain why addition and subtraction strategies work, using place value and the properties of operations. *[Explanations may be supported by drawings or objects.]*

Measurement and Data

Measure and estimate lengths in standard units.

2.MD.1. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.

2.MD.2. Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.

2.MD.3. Estimate lengths using units of inches, feet, centimeters, and meters.

2.MD.4. Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

Relate addition and subtraction to length.

2.MD.5. Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.

2.MD.6. Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.

Work with time and money.

2.MD.7. Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.

2.MD.8. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately.

Example: If you have 2 dimes and 3 pennies, how many cents do you have?

Represent and interpret data.

2.MD.9. Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.

2.MD.10. Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.

Geometry

Reason with shapes and their attributes.

2.G.1. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. *[Sizes are compared directly or visually, not compared by measuring.]* Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.

2.G.2. Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.

2.G.3. Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

Grade 3

In Grade 3, instructional time should focus on four 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 numerator 1); (3) developing understanding of the structure of rectangular arrays and of area; and (4) describing and analyzing two-dimensional shapes.

- 1. Students develop an understanding of the meanings of multiplication and division of whole numbers through activities and problems involving equal-sized groups, arrays, and area models; multiplication is finding an unknown product, and division is finding an unknown factor in these situations. For equal-sized group situations, division can require finding the unknown number of groups or the unknown group size. Students use properties of operations to calculate products of whole numbers, using increasingly sophisticated strategies based on these properties to solve multiplication and division problems involving single-digit factors. By comparing a variety of solution strategies, students learn the relationship between multiplication and division.
- 2. Students develop an understanding of fractions, beginning with unit fractions. Students view fractions in general as being built out of unit fractions, and they use fractions along with visual fraction models to represent parts of a whole. Students understand that the size of a fractional part is relative to the size of the whole. For example, 1/2 of the paint in a small bucket could be less paint than 1/3 of the paint in a larger bucket, but 1/3 of a ribbon is longer than 1/5 of the same ribbon because when the ribbon is divided into 3 equal parts, the parts are longer than when the ribbon is divided into 5 equal parts. Students are able to use fractions to represent numbers equal to, less than, and greater than one. They solve problems that involve comparing fractions by using visual fraction models and strategies based on noticing equal numerators or denominators.
- 3. Students recognize area as an attribute of two-dimensional regions. They measure the area of a shape by finding the total number of same-size units of area required to cover the shape without gaps or overlaps, a square with sides of unit length being the standard unit for measuring area. Students understand that rectangular arrays can be decomposed into identical rows or into identical columns. By decomposing rectangles into rectangular arrays of squares, students connect area to multiplication, and justify using multiplication to determine the area of a rectangle.
- 4. Students describe, analyze, and compare properties of two-dimensional shapes. They compare and classify shapes by their sides and angles, and connect these with definitions of shapes. Students also relate their fraction work to geometry by expressing the area of part of a shape as a unit fraction of the whole.

Grade 3 Overview

- **Operations and Algebraic Thinking**
  - Represent and solve problems involving multiplication and division.
  - Understand properties of multiplication and the relationship between multiplication and division.
  - Multiply and divide within 100.
  - Solve problems involving the four operations, and identify and explain patterns in arithmetic.

- **Number and Operations in Base Ten**
  - Use place value understanding and properties of operations to perform multi-digit arithmetic.

- **Number and Operations—Fractions**
  - Develop understanding of fractions as numbers.

- **Measurement and Data**
  - Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.

    Represent and interpret data.

  - Geometric measurement: understand concepts of area and relate area to multiplication and to addition.
  - Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.

- **Geometry**
  - Reason with shapes and their attributes.

Grade 3

Operations and Algebraic Thinking

Represent and solve problems involving multiplication and division.

3.OA.1. Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. *For example, describe a context in which a total number of objects can be expressed as 5 × 7.*

3.OA.2. Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. *For example, describe a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8.*

3.OA.3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.

3.OA.4. Determine the unknown whole number in a multiplication or division equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 × ? = 48, 5 = □ ÷ 3, 6 × 6 = ?.*

Understand properties of multiplication and the relationship between multiplication and division.

3.OA.5. Apply properties of operations as strategies to multiply and divide. *[Students need not use formal terms for these properties.] Examples: If 6 × 4 = 24 is known, then 4 × 6 = 24 is also known. (Commutative property of multiplication.) 3 × 5 × 2 can be found by 3 × 5 = 15, then 15 × 2 = 30, or by 5 × 2 = 10, then 3 × 10 = 30. (Associative property of multiplication.) Knowing that 8 × 5 = 40 and 8 × 2 = 16, one can find 8 × 7 as 8 × (5 + 2) = (8 × 5) + (8 × 2) = 40 + 16 = 56. (Distributive property.)*

3.OA.6. Understand division as an unknown-factor problem. *For example, find 32 ÷ 8 by finding the number that makes 32 when multiplied by 8.*

Multiply and divide within 100.

3.OA.7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

Solve problems involving the four operations, and identify and explain patterns in arithmetic.

3.OA.8. Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. *[This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations).]*

3.OA.9. Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. *For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.*

Number and Operations in Base Ten

Use place value understanding and properties of operations to perform multi-digit arithmetic. *[A range of algorithms may be used.]*

> 3.NBT.1. Use place value understanding to round whole numbers to the nearest 10 or 100.
>
> 3.NBT.2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
>
> 3.NBT.3. Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations.

Number and Operations—Fractions
[Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8.]

Develop understanding of fractions as numbers.

> 3.NF.1. Understand a fraction 1/*b* as the quantity formed by 1 part when a whole is partitioned into *b* equal parts; understand a fraction *a*/*b* as the quantity formed by *a* parts of size 1/*b*.
>
> 3.NF.2. Understand a fraction as a number on the number line; represent fractions on a number line diagram.
> - Represent a fraction 1/*b* on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into *b* equal parts. Recognize that each part has size 1/*b* and that the endpoint of the part based at 0 locates the number 1/*b* on the number line.
> - Represent a fraction *a*/*b* on a number line diagram by marking off *a* lengths 1/*b* from 0. Recognize that the resulting interval has size *a*/*b* and that its endpoint locates the number *a*/*b* on the number line.
>
> 3.NF.3. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.
> - Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.
> - Recognize and generate simple equivalent fractions, e.g., 1/2 = 2/4, 4/6 = 2/3). Explain why the fractions are equivalent, e.g., by using a visual fraction model.
> - Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. *Examples: Express 3 in the form 3 = 3/1; recognize that 6/1 = 6; locate 4/4 and 1 at the same point of a number line diagram.*
> - Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.

Measurement and Data

Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.

    3.MD.1 Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.

    3.MD.2. Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). *[Excludes compound units such as cm³ and finding the geometric volume of a container.]* Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem. *[Excludes multiplicative comparison problems (problems involving notions of "times as much"]*

Represent and interpret data.

    3.MD.3. Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. *For example, draw a bar graph in which each square in the bar graph might represent 5 pets.*

    3.MD.4. Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.

Geometric measurement: understand concepts of area and relate area to multiplication and to addition.

    3.MD.5. Recognize area as an attribute of plane figures and understand concepts of area measurement.

- A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area.
- A plane figure which can be covered without gaps or overlaps by *n* unit squares is said to have an area of *n* square units.

    3.MD.6. Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).

    3.MD.7. Relate area to the operations of multiplication and addition.

- Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.
- Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.
- Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths *a* and *b* + *c* is the sum of *a* × *b* and *a* × *c*. Use area models to represent the distributive property in mathematical reasoning.
- Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.

Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.

 3.MD.8. Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

Geometry

Reason with shapes and their attributes.

 3.G.1. Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.

 3.G.2. Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. *For example, partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape.*
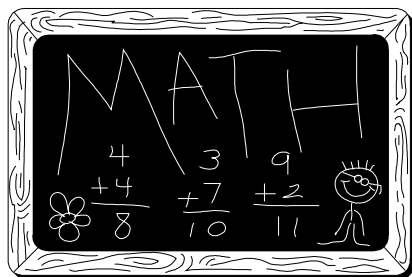
Grade 4

Operations and Algebraic Thinking

Use the four operations with whole numbers to solve problems.

4.OA.1. Interpret a multiplication equation as a comparison, e.g., interpret 35 = 5 × 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.

4.OA.2. Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.

4.OA.3. Solve multi-step word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Gain familiarity with factors and multiples.

4.OA.4. Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.

Generate and analyze patterns.

4.OA.5. Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. For example, given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.

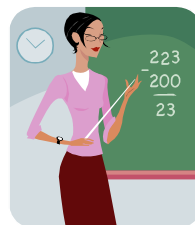# Number and Operations in Base Ten
[Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.]

Generalize place value understanding for multi-digit whole numbers.

4..NBT.1. Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that 700 ÷ 70 = 10 by applying concepts of place value and division.

4..NBT.2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.

4..NBT.3. Use place value understanding to round multi-digit whole numbers to any place.

Use place value understanding and properties of operations to perform multi-digit arithmetic.

4..NBT.4. Fluently add and subtract multi-digit whole numbers using the standard algorithm.

4..NBT.5. Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

4..NBT.6. Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Number and Operations—Fractions
[Grade 4 expectations in this domain are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.]

Extend understanding of fraction equivalence and ordering.

4.NF.1. Explain why a fraction a/b is equivalent to a fraction (n × a)/(n × b) by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.

4.NF.2. Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as 1/2. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.

Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.

4.NF.3. Understand a fraction a/b with a > 1 as a sum of fractions 1/b.
- Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.
- Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. Examples: 3/8 = 1/8 + 1/8 + 1/8 ; 3/8 = 1/8 + 2/8 ; 2 1/8 = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8.
- Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.
- Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.

4.NF.4. Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.
- Understand a fraction a/b as a multiple of 1/b. For example, use a visual fraction model to represent 5/4 as the product 5 × (1/4), recording the conclusion by the equation 5/4 = 5 × (1/4).
- b. Understand a multiple of a/b as a multiple of 1/b, and use this understanding to multiply a fraction by a whole number. For example, use a visual fraction model to express 3 × (2/5) as 6 × (1/5), recognizing this product as 6/5. (In general, n × (a/b) = (n × a)/b.)
- c. Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. For example, if each person at a party will eat 3/8 of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?

Understand decimal notation for fractions, and compare decimal fractions.
4.NF.5. Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. [Students who can generate equivalent fractions can develop strategies for adding fractions with unlike denominators in general. But addition and subtraction with unlike denominators in general is not a requirement at this grade.] For example, express 3/10 as 30/100, and add 3/10 + 4/100 = 34/100.

4.NF.6. Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.

4.NF.7. Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model.

Measurement and Data

Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

4.MD.1. Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...

4.MD.2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

4.MD.3. Apply the area and perimeter formulas for rectangles in real world and mathematical problems. For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.

Represent and interpret data.

4.MD.4. Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Solve problems involving addition and subtraction of fractions by using information presented in line plots. For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.

**Geometric measurement: understand concepts of angle and measure angles.**

4.MD.5. Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:

- An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through 1/360 of a circle is called a "one-degree angle," and can be used to measure angles.
- An angle that turns through n one-degree angles is said to have an angle measure of n degrees.

4.MD.6. Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.

4.MD.7. Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.

Geometry

Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

4.G.1. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.

4.G.2. Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.

4.G.3. Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.

$$A = \pi r^2$$
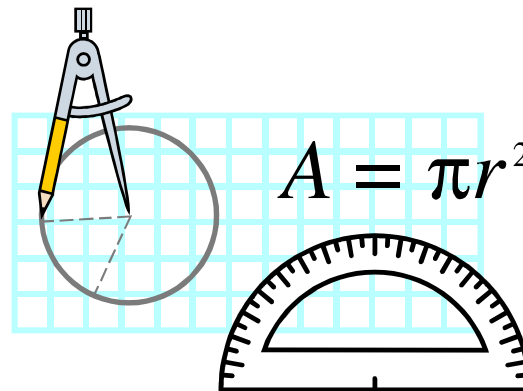
Implementation Guide – Grade 3 Mathematics

Code: M.3.A.1 refers to: Mathematics –Grade 3 – Topic A – Skill 1

CATEGORY: Operations and Algebraic Thinking. Standard:M.3.A Represent and solve problems involving multiplication and division	
Essential Questions *What should I be able to answer?* *What guides my thinking?*	Why is it important to have multiplication/division as a tool in my life? Are there times when knowledge of multiplication/division will make my life easier? How will fluency in multiplication and division frame my interaction with real life situations? How can what I know about addition help me with multiplication? How can what I know about subtraction help me with division?
Assessment *What will I be expected to know, understand, and be able to do in order to demonstrate my learning?*	Formative- I can/Not yet, Exit cards with examples of solved problems, Label groups 3- I can do this and want word problems to practice 2-need more practice 1- have no idea- need teacher help. Math journaling. Find someone who….Review Students explain what they heard during the lesson to another student, agree/disagree/discuss Homework check/board work Summative Performance Assessments, Chapter test

Skills *What skills do I need to have in order to answer the essential questions?*	**M.3.A** 1. Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. *For example, describe a context in which a total number of objects can be expressed as 5 × 7.* **M.3.A** 2. Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. *For example, describe a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8.* **M.3.A** 3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. **M.3.A** 4. Determine the unknown whole number in a multiplication or division equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 × ? = 48, 5 = □ ÷ 3, 6 × 6 = ?.*
Content *What content do I need to know in order to answer the essential questions?*	Adding equal groups, repeated addition, being able to break apart numbers into equal groups, repeated subtraction, vocabulary-array, factor, product, divisor, dividend, quotient, multiples

Integration of Learning *How does this learning connect to my other areas (subjects) of learning?*	Real life, buying multiples dividing numbers of people into tables at parties, making equal groups for field trips, games, etc.
Tools for Learning *Which tools will I use that will assist me in my learning?*	Manipulatives, graph paper, multiplication table, calculator, math websites- Iknowthat.com Literature-Hershey's Milk Chocolate Multiplication Book,

Which 21st Century Skills are woven into this standard?   ___Critical Thinking/Problem Solving   ___Collaboration
                                                                               ___Communications   ___Creativity/Innovation
What level of rigor will I be using? (A, C)_____   What level of relevance will I be using?_____ (B,D)

CATEGORY: Operations and Algebraic Thinking. Standard: M.3.B Understand properties of multiplication and the relationship between multiplication and division.	

Essential Questions *What should I be able to answer?* *What guides my thinking?*	1. How does my knowledge about multiplication facts help me to solve problems? 2. How can I use the array model to explain multiplication 3. When I manipulate numbers in multiplication does it make a difference in the answer?
Assessment *What will I be expected to know, understand, and be able to do in order to demonstrate my learning?*	**Formative-** flashcards, Around the World, pair quizzing, show me with either manipulatives, whiteboards, paper, pencil, teacher question, observation. **Summative**- Create the Room – Children can create classroom arrangements using different multiplication examples, Demonstration using manipulatives, ie gram cubes, etc.

Skills *What skills do I need to have in order to answer the essential questions?*	**M.3.B.1**. Apply properties of operations as strategies to multiply and divide. *[Students need not use formal terms for these properties.] Examples: If 6 × 4 = 24 is known, then 4 × 6 = 24 is also known. (Commutative property of multiplication.) 3 × 5 × 2 can be found by 3 × 5 = 15, then 15 × 2 = 30, or by 5 × 2 = 10, then 3 × 10 = 30. (Associative property of multiplication.) Knowing that 8 × 5 = 40 and 8 × 2 = 16, one can find 8 × 7 as 8 × (5 + 2) = (8 × 5) + (8 × 2) = 40 + 16 = 56. (Distributive property.)* **M.3.B.2**. Understand division as an unknown-factor problem. *For example, find 32 ÷ 8 by finding the number that makes 32 when multiplied by 8.*
Content *What content do I need to know in order to answer the essential questions?*	Essential multiplication facts, if you know, 3x5= 15, you also know 5x3=15 Commutative property Mastering 5x12 is the same as 5x10+ 5x2 or 5(10+2)= Distributive Property
Integration of Learning *How does this learning connect to my other areas (subjects) of learning?*	Planting in a garden, rows of plants, cupcakes in a box, desk arrangements. Planning arrangements for seating Social Studies- reading graphs with a key meaning more than one. Science-Calculating measurements
Tools for Learning *Which tools will I use that will assist me in my learning?*	http://www.vtaide.com/png/twinfacts.htm http://www.vtaide.com/png/multiplication.htm

Which 21st Century Skills are woven into this standard?   ___Critical Thinking/Problem Solving   ___Collaboration
___Communications   ___Creativity/Innovation
What level of rigor will I be using? (A, C)_____   What level of relevance will I be using?_____ (B,D)

CATEGORY: Operations and Algebraic Thinking.   Standard:M.3.C Multiply and divide within 100

Essential Questions *What should I be able to answer?* *What guides my thinking?*	How does fluency in multiplication and division help me? Why is it important for me to know multiplication and corresponding division facts?
Assessment *What will I be expected to know, understand, and be able to do in order to demonstrate my learning?*	**Formative** –. Think, Pair, Share. Think out Loud, I Can, Not Yet. Self label groups 3- I can do this and want word problems to practice 2-need more practice 1- have no idea- need teacher help. **Summative-** Feet-Have asset of foot shapes with number on each from 1-10 attached to a wall. Students will say a times table fluently. For each 3 a sticker prize is given. Ice cream sundae(get from Bridget)
Skills *What skills do I need to have in order to answer the essential questions?*	Understand numbers, ways of representing numbers, relationships among numbers, and number systems. Understand that multiplication is repeated addition and is a shorter and faster way of computation.

Content *What content do I need to know in order to answer the essential questions?*	**M.3.C.1**. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
Integration of Learning *How does this learning connect to my other areas (subjects) of learning?*	Anywhere multiples of numbers are needed, groups of equal numbers. Science- multiples Social Studies-graphs
Tools for Learning *Which tools will I use that will assist me in my learning?*	Multiplication chart, manipulatives of any kind, gram cubes are great, 100 chart, calculators http://www.iknowthat.com, http://www.math-drills.com/multiplication.shtml Children's literature website-http://mathforum.org/t2t/faq/gail/lit.html

Which 21st Century Skills are woven into this standard?   ___Critical Thinking/Problem Solving   ___Collaboration
___Communications   ___Creativity/Innovation
What level of rigor will I be using? (A, C)_____   What level of relevance will I be using?_____ (B,D)

CATEGORY: Operations and Algebraic Thinking Standard: M.4.D Solve problems involving the four operations, and identify and explain patterns in arithmetic.

Essential Questions *What should I be able to answer?* *What guides my thinking?*	Are there times when I need to use more than one operation to solve a problem? How can I figure out what operation to do and when to do it? How will number patterns help me with word problems?
Assessment *What will I be expected to know, understand, and be able to do in order to demonstrate my learning?*	Formative– Exit cards with examples of solved problems on whiteboards, hold up your solutions. Agree/disagree, discuss Summative- Solve word problems using more than one operation. Explain how it was done either written or orally.
Skills *What skills do I need to have in order to answer the essential questions?*	**M.3.D.1**. Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. *[This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations).]* **M.3.D.2**. Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. *For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.*

Content *What content do I need to know in order to answer the essential questions?*	Addition, subtraction, multiplication, and division skills. Recognition of wording used for each operation, ie, all together, how many are left, equal number of groups, how many in each group, identifying 4 types of subtraction problems.
Integration of Learning *How does this learning connect to my other areas (subjects) of learning?*	Calculating perimeter Preparing materials in science for an experiment or science fair project Prepare ingredients for baking at home for a class snack or dinner for multiple guests
Tools for Learning *Which tools will I use that will assist me in my learning?*	24 cards, www.firstinmath.com , http://www.internet4classrooms.com/word_problems_quest.htm

Which 21st Century Skills are woven into this standard? ___Critical Thinking/Problem Solving ___Collaboration
  ___Communications ___Creativity/Innovation
What level of rigor will I be using? (A, C)_____ What level of relevance will I be using?_____ (B,D)

CATEGORY: Numbers and Operations in Base Ten. Standard M.3.E. Use place value understanding and properties of operations to perform multi-digit arithmetic. [A range of algorithms may be used.]

Essential Questions *What should I be able to answer?* *What guides my thinking?*	Why do I need to know the places for numbers? How will knowing number places help me set up problems for different operations? When will I round rather than calculate the exact answer in math?
Assessment *What will I be expected to know, understand, and be able to do in order to demonstrate my learning?*	**Formative**- Physical body use- Using multiple sets of numbers with a start and end points the children organize their numbers from least to greatest or greatest to least. .Decisions can be made to decide which numbers are closer to the endpoints in the lineup? Hold up the answer, Yes or no answer cards. **Summative**- Given particular numbers, explain how they have to be ordered to that they show greatest to least, or least to greatest.
Skills *What skills do I need to have in order to answer the essential questions?*	**M.3.E.**1. Use place value understanding to round whole numbers to the nearest 10 or 100. **M.3.E.**2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction. **M.3.E.**3. Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations.

Content *What content do I need to know in order to answer the essential questions?*	Understand comparing and ordering numbers, greater than and less than, wording "about how many". Addition and subtraction skills. Multiplication tables. Understand that the four digits of a four-digit number represent amounts of thousands, hundreds, tens, and ones; e.g. 3,706 = 3000 + 700 + 6 = 3 thousands, 7 hundreds, 0 tens, and 6 ones.
Integration of Learning *How does this learning connect to my other areas (subjects) of learning?*	Estimation of crowds at a gathering- World Events, Olympics, Sports game Estimation and calculation of money needed for a purchase.
Tools for Learning *Which tools will I use that will assist me in my learning?*	Place value charts, http://www.superteacherworksheets.com/place-value.html Ruler, meter stick, number lines http://www.oswego.org/ocsd-web/games/DogBone/gamebone.html

Which 21st Century Skills are woven into this standard?   ___Critical Thinking/Problem Solving   ___Collaboration
                                                          ___Communications   ___Creativity/Innovation
What level of rigor will I be using? (A, C)_____   What level of relevance will I be using?_____ (B,D)
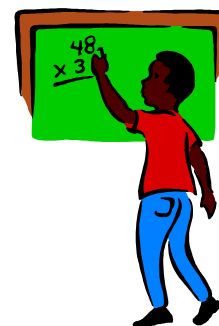
CATEGORY: Numbers and Operations- Fractions. Standard:M.3.F. Develop understanding of fractions as numbers. Limited to denominators 2,3,4,6 and 8	

Essential Questions *What should I be able to answer? What guides my thinking?*	How do I show a number when it's smaller than one whole? What are fractions? What can I do with them? Why do I need to know about them?
Assessment *What will I be expected to know, understand, and be able to do in order to demonstrate my learning?*	**Formative**- demonstration using equal size shapes, that ½ of a shape is the same size as 2/4 of the same size shape, Show Me- on whiteboards/chalkboards/Smartboard different fractions. **Summative**- http://www.rda.aps.edu/mathtaskbank/pdfs/tasks/3-5/t3LotsChoc.pdf Create a chart showing how different names of fractions mean the same thing. ie 5 equal circles the first whole, the next showing ½, the next 2/4 the next 3/6 and the last 4/8 illustrating that they are all the same size. Make a fraction booklet with the same idea as above Fold a piece of paper with 4 folds, showing 1/2 =2/4=4/8 Make a mobile using equal sized pieces of paper folded into the different equivalent fractions and a hanger/rod
Skills *What skills do I need to have in order to answer the essential questions?*	**M.3.F.** 1. Understand a fraction 1/*b* as the quantity formed by 1 part when a whole is partitioned into *b* equal parts; understand a fraction *a*/*b* as the quantity formed by *a* parts of size 1/*b*. **M.3.F.** 2. Understand a fraction as a number on the number line; represent fractions on a number line diagram. a. Represent a fraction 1/*b* on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into *b* equal parts. Recognize that each part has size 1/*b* and that the endpoint of the part based at 0 locates the number 1/*b* on the number line. b. Represent a fraction *a*/*b* on a number line diagram by marking off *a* lengths 1/*b* from 0. Recognize that

the resulting interval has size *a*/*b* and that its endpoint locates the number *a*/*b* on the number line.

M.3.F. 3. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.

a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.

b. Recognize and generate simple equivalent fractions, e.g., 1/2 = 2/4, 4/6 = 2/3). Explain why the fractions are equivalent, e.g., by using a visual fraction model.

c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. *Examples: Express 3 in the form 3 = 3/1; recognize that 6/1 = 6; locate 4/4 and 1 at the same point of a number line diagram.*

d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.

Content *What content do I need to know in order to answer the essential questions?*	vocabulary, parts of a whole, equal pieces, multiples multiplication times tables, >, <
Integration of Learning *How does this learning connect to my other areas (subjects) of learning?*	Science- dividing an amount of liquid or solid into equal pieces. Sharing a whole pizza/cookie/project etc. equally among people.
Tools for Learning *Which tools will I use that will assist me in my learning?*	**The Hershey's Milk Chocolate Bar Fractions Book by Jerry Pallotta** http://www.songsforteaching.com/math/fractions/equivalentfractions.htm Fraction Fun by David Adler Rulers, meter stick, number line Fraction bar pieces http://nlvm.usu.edu/en/nav/frames_asid_105_g_2_t_1.html

Which 21st Century Skills are woven into this standard?   ___Critical Thinking/Problem Solving   ___Collaboration
                                                                                                        ___Communications   ___Creativity/Innovation
What level of rigor will I be using? (A, C)_____   What level of relevance will I be using?_____ (B,D)

CATEGORY: Measurement and Data. Standard M.3.G: Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.

Essential Questions *What should I be able to answer?* *What guides my thinking?*	Is it important to tell time? How can knowing how to tell time help me? How can I measure liquids? What do I use to measure liquids or solids? Can I add or subtract amounts of liquids or solids?
Assessment *What will I be expected to know, understand, and be able to do in order to demonstrate my learning?*	**Formative:** Show me, write in math journals, explain/demonstrate measuring liquids/solids using grams, kilograms, milliliters, and liters. Graduates and beakers and be used to show measurements. Clock manipulatives-say a time show a time, draw the time. **Summative**: Tell the correct time at a designated time, estimate and calculate liquid and mass measurements in a given experiment.
Skills *What skills do I need to have in order to answer the essential questions?*	**M.3.G.** 1. Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram. **M.3.G.** 2. Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). *[Excludes compound units such as cm^3 and finding the geometric volume of a container.]* Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem. *[Excludes multiplicative comparison problems (problems involving notions of "times as much"]*

Content *What content do I need to know in order to answer the essential questions?*	Need to know skip counting by 5, and 10, minutes in an hour, ½ hour and ¼ hour, grams, kilograms, liters
Integration of Learning *How does this learning connect to my other areas (subjects) of learning?*	Science, measuring liquids and solids. Time- reading schedules, calculating available time to complete work and calculating how much time is left.
Tools for Learning *Which tools will I use that will assist me in my learning?*	Number lines, rulers, graduates, balances, beakers, scales, clock faces.

Which 21st Century Skills are woven into this standard?   ___Critical Thinking/Problem Solving   ___Collaboration
                                                                                        ___Communications   ___Creativity/Innovation
What level of rigor will I be using? (A, C)_____   What level of relevance will I be using?_____ (B,D)

Category: Measurement and Data. Standard: M.3.H Represent and Interpret Data

Essential Questions *What should I be able to answer? What guides my thinking?*	What are graphs used for? Can graphs tell us any information? How can I make a picture graph or a bar graph.
Assessment *What will I be expected to know, understand, and be able to do in order to demonstrate my learning?*	**Formative**: Show what you know! Thumbs up thumbs down. **Summative**: Create a survey, collect data and make a bar or pictograph using units meaning one and/or parts representing more than one. Write coordinating word problems to compare/contrast the data in the grqph.
Skills *What skills do I need to have in order to answer the essential questions?*	**M.3.H..1**. Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. *For example, draw a bar graph in which each square in the bar graph might represent 5 pets.* **M.3.H..2**. Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.

Content *What content do I need to know in order to answer the essential questions?*	Greater than, less than signs, fractions. Addition and subtraction skills,
Integration of Learning *How does this learning connect to my other areas (subjects) of learning?*	Interpreting graphs in Social Studies, newspapers etc.
Tools for Learning *Which tools will I use that will assist me in my learning?*	Rulers, graph or centimeter paper, Means of collecting data ie clipboard

Which 21st Century Skills are woven into this standard?   ___Critical Thinking/Problem Solving   ___Collaboration

___Communications   ___Creativity/Innovation

What level of rigor will I be using? (A, C)_____   What level of relevance will I be using?_____ (B,D)

CATEGORY: Measurement and Data. Standard: M.3.I Geometric measurement: understand concepts of area and relate area to multiplication and to addition.

Essential Questions *What should I be able to answer? What guides my thinking?*	What is area used for? What are some other ways I can use times tables to help calculate the area of a shape?
Assessment *What will I be expected to know, understand, and be able to do in order to demonstrate my learning?*	Formative: timed and untimed multiplication tests Show me what 3x5 looks like. Use counters or gram cubes to create squares and rectangles with specific dimensions. Summative: Math Journals-Students use journal writing to demonstrate knowledge obtained. Build arrays given specific directions ie. Create the floor of the new doghouse using these dimensions
Skills *What skills do I need to have in order to answer the essential questions?*	Multiplication: times tables Distributive property Vocabulary: array, plane figures, rectangle, square, column, row, dimension

Content *What content do I need to know in order to answer the essential questions?*	**M.3.I.1**. Recognize area as an attribute of plane figures and understand concepts of area measurement. a. A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area. b. A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units. **M.3.I.2**. Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units). **M.3.I.3**. Relate area to the operations of multiplication and addition. a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths. b. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning. c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning. d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.

Integration of Learning *How does this learning connect to my other areas (subjects) of learning?*	Measuring carpets, flooring, finding space available to use in a specific place. Engineering, architecture, design, sewing picture, framing
Tools for Learning *Which tools will I use that will assist me in my learning?*	Graph paper, Times table charts, websites for timed practice

Which 21st Century Skills are woven into this standard?   ___Critical Thinking/Problem Solving   ___Collaboration
                           ___Communications   ___Creativity/Innovation
What level of rigor will I be using? (A, C)_____   What level of relevance will I be using?_____ (B,D)

CATEGORY: Measurement and Data: Standard: M.3.J Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.

Essential Questions *What should I be able to answer?* *What guides my thinking?*	Are shapes important in our world? Can I create different shapes with lines? What are other shapes I can create? How are shapes used in our world? How do I calculate the distance around and inside shapes?
Assessment *What will I be expected to know, understand, and be able to do in order to demonstrate my learning?*	**Formative:** Draw shapes with specific sides, construct shapes using gram cubes, make cards with a specific perimeter. **Summative:** Design a floor plan using given dimensions, calculate the area of the floor, walls etc "How much space do I have?" Mini Martha lives in a mini house, her floor is 9 X 12 feet, she needs a 7x 5 space for her couch and a 4x4 space for each of her 2 chairs. She also has a coffee table that needs a 4x6 space. Does she have enough space to fit everything?
Skills *What skills do I need to have in order to answer the essential questions?*	**M.3.J.1**. Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

Content *What content do I need to know in order to answer the essential questions?*	Students will learn polygon shapes and definitions, triangle, square, rectangle, parallelogram, pentagon, octagon. Students will learn that perimeter is the distance around a polygon and area is the distance inside the shape.
Integration of Learning *How does this learning connect to my other areas (subjects) of learning?*	Construction, buildings, design architecture, sewing
Tools for Learning *Which tools will I use that will assist me in my learning?*	Graph paper, rulers, interactive boards, white boards http://www.shodor.org/interactivate/lessons/LengthPerimeterArea/ http://www.fi.uu.nl/toepassingen/00343/toepassing_wisweb.en.html

Which 21st Century Skills are woven into this standard?   ___Critical Thinking/Problem Solving   ___Collaboration
                                                                                                       ___Communications   ___Creativity/Innovation
What level of rigor will I be using? (A, C)_____   What level of relevance will I be using?_____ (B,D)

Essential Questions *What should I be able to answer?* *What guides my thinking?*	Are shapes of figures important? How are shapes represented in our world? How can I group shapes to classify them? Does the shape of a figure matter in drawing or building? Can shapes be combined to create new shapes?
Assessment *What will I be expected to know, understand, and be able to do in order to demonstrate my learning?*	**Formative:** Observe and interact with students to determine their level of understanding. Partner to partner paraphrase, journal records, question/response, sketch understanding, pair share summary, quizzes. Sort and classify shapes by their attributes. **Summative:** "Which shape is it?" Using a list of criteria, the student will identify and/or draw the shape based on the description. How many equal fourths, thirds, can you divide this shape into?
Skills *What skills do I need to have in order to answer the essential questions?*	**M.3.K.** 1. Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories. **M.3.K.** 2. Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. *For example, partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape.*

Content *What content do I need to know in order to answer the essential questions?*	Students should know polygon shapes and definitions, square, rectangle, parallelogram, and others. Recognize that 4 sided shapes have similarities and differences. Vocabulary- angle, acute, obtuse, quadrilateral halves, thirds, fourths. Knowledge of fractions
Integration of Learning *How does this learning connect to my other areas (subjects) of learning?*	Architecture, engineering, landscaping, carpentry
Tools for Learning *Which tools will I use that will assist me in my learning?*	Text books, trade books, NCTM, graphic organizer, virtual manipulatives

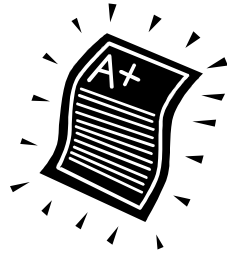Which 21st Century Skills are woven into this standard? ___Critical Thinking/Problem Solving ___Collaboration
  ___Communications ___Creativity/Innovation
What level of rigor will I be using? (A, C)_____ What level of relevance will I be using?_____ (B,D)

Assessment and Grading

Grading and Assessment

Report Cards

The change in curriculum has prompted a change in our reporting document.

- **Report cards** will not be grade specific.
  - **Kindergarten** students will receive reports aligned to the skills appropriate to that level.
  - Students in **grades 1 – 3** will receive the primary form of the report card.
    - The grading system will continue as letter grades.
    - **No** numerical equivalents are attached to these grades.
  - The children in grades 4 – 8 will receive the elementary form of the report card
    - The grading system will continue as number grades for major content areas: Religion, Math and English Language Arts, Science and Social Studies. The general average is calculated from these grades.
    - A number scale is used for other content areas: Art, Music, Physical Education, Technology and World Language.

- **Grading Practices:**
  - The students will receive **one grade** for ELA and **one grade** for Math
    - The overall grade for each of these content areas will be an average of the progress shown in all of the "sub-set" categories for that content area.
    - **ELA** -- Care must be taken to ensure that the assessments reflect the entirety of ELA
      - At a minimum 2 assessments must be planned to assess progress in each of the sub-categories.
      - In each "sub-category":
        - a "+" will indicate that the student meets or exceeds expectations in that area.
        - a "√" will indicate that the student continues to work towards meeting expectations.
    - In **Math**, the students will again receive one overall grade.
      - Progress in sub-categories" will be noted with a "+" or a " √" as indicated above.
      - Progress should be able to documented by at least two different assessments in each area.

Portfolios:
  - Portfolio assessment is a *"perfect fit"* with the Core Curriculum State Standards

- Portfolios should be used to gather relevant samples of student work over time
- Students are involved in the selection of artifacts
  - Students do self-reflection of their work
  - Teachers and students periodically discuss the work contained in the portfolio

- **Minimum Requirements for Student Portfolios:**
  - Baseline writing samples – start and end of school year
  - 2 ELA Performance assessments (all stages with rubric attached.)
  - 2 Math Performance assessments
  - Standardized test scores
  - Social Studies, Science, Art, Technology, Music, World Language samples
  - Student Choices with entry slip attached
  - Other items deemed necessary by the local school
    - Writing pieces
    - Science experiments
    - Mathematics problems and solutions
    - Applied Mathematics
    - Book reviews
    - Research projects
    - Physical Fitness Summary
    - Interdisciplinary projects/assignments

Resources

Web site for Common Core Standards:

http://www.corestandards.org/the-standards/

- **Resources aligned to the Common Core Standards can be found at :**
  http://teacherweb.com/PA/AOP/ETCC/apt1.aspx

You will find a wealth of resources related to curriculum on the following Curriculum Committee web sites.

- **Curriculum web site:**
  http://www.teacherweb.com/PA/AOP/ElementaryCurriculumandInstruction/h1.aspx **English Language Arts web site:**
  http://www.teacherweb.com/PA/AOP/ElementaryIntegratedLanguageArts%28ILA%29/ap2.aspx
- **Mathematics web site:**
  http://www.teacherweb.com/PA/AOP/ElementaryMathematicsCurriculumCommittee/apt1.aspx
- **Library Media web site:**
  http://www.teacherweb.com/PA/AOP/ElementaryLibraryMediaCommittee/h0.stm
- **Early Childhood web site: http://www.teacherweb.com/PA/AOP/EarlyChildhood/**
- **Assessment: http://www.teacherweb.com/PA/AOP/ElementaryAssessmentCommittee/ap1.aspx**