Operations and Algebraic Thinking

2.0A

Represent and solve problems involving addition and subtraction.

 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.¹

Add and subtract within 20.

2. Fluently add and subtract within 20 using mental strategies.² 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.

- 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.
- 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

2.NBT

Understand place value.

- 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:
 - a. 100 can be thought of as a bundle of ten tens called a "hundred."
 - b. 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. Count within 1000; skip-count by 5s, 10s, and 100s.
- 3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
- 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.

- Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
- 6. Add up to four two-digit numbers using strategies based on place value and properties of operations.
- 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.
- Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.
- 9. Explain why addition and subtraction strategies work, using place value and the properties of operations.³

¹See Glossary, Table 1.

²See standard 1.OA.6 for a list of mental strategies.

³Explanations may be supported by drawings or objects.

Ratios and Proportional Relationships

7.RP

Analyze proportional relationships and use them to solve real-world and mathematical problems.

- Compute unit rates associated with ratios of fractions, including ratios
 of lengths, areas and other quantities measured in like or different
 units. For example, if a person walks 1/2 mile in each 1/4 hour, compute
 the unit rate as the complex fraction 1/2/1/4 miles per hour, equivalently 2
 miles per hour.
- 2. Recognize and represent proportional relationships between quantities.
 - a. Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.
 - Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.
 - c. Represent proportional relationships by equations. For example, if total cost t is proportional to the number n of items purchased at a constant price p, the relationship between the total cost and the number of items can be expressed as t = pn.
 - d. Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points (0, 0) and (1, r) where r is the unit rate.
- 3. Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.

The Number System

7.NS

Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.

- Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.
 - a. Describe situations in which opposite quantities combine to make O. For example, a hydrogen atom has O charge because its two constituents are oppositely charged.
 - b. Understand p+q as the number located a distance |q| from p, in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.
 - c. Understand subtraction of rational numbers as adding the additive inverse, p-q=p+(-q). Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.
 - d. Apply properties of operations as strategies to add and subtract rational numbers.
- 2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.
 - a. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as (-1)(-1) = 1 and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.

Functions Overview

Interpreting Functions

- Understand the concept of a function and use function notation
- Interpret functions that arise in applications in terms of the context
- Analyze functions using different representations

Building Functions

- Build a function that models a relationship between two quantities
- · Build new functions from existing functions

Linear, Quadratic, and Exponential Models

- Construct and compare linear, quadratic, and exponential models and solve problems
- Interpret expressions for functions in terms of the situation they model

Trigonometric Functions

- Extend the domain of trigonometric functions using the unit circle
- Model periodic phenomena with trigonometric functions
- · Prove and apply trigonometric identities

Mathematical Practices

- Make sense of problems and persevere in solving them.
- 2. Reason abstractly and quantitatively.
- 3. Construct viable arguments and critique the reasoning of others.
- 4. Model with mathematics.
- 5. Use appropriate tools strategically.
- 6. Attend to precision.
- 7. Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

Causation and Argumentation

No historical event or development occurs in a vacuum; each one has prior conditions and causes, and each one has consequences. Historical thinking involves using evidence and reasoning to draw conclusions about probable causes and effects, recognizing that these are multiple and complex. It requires understanding that the outcome of any historical event may not be what those who engaged in it intended or predicted, so that chains of cause and effect in the past are unexpected and contingent, not pre-determined. Along with claims about causes and effects,

historical arguments can also address issues of change over time, the relevance of sources, the perspectives of those involved, and many other topics, but must be based on evidence that is used in a critical, coherent, and logical manner.

Indicators of Dimension 2—Causation and Argumentation—are detailed in the suggested K-12 Pathway for College, Career, and Civic Readiness in Table 23.

TABLE 23: Suggested K-12 Pathway for College, Career, and Civic Readiness Dimension 2, Causation and Argumentation

	and my gamentation		
BY THE END OF GRADE 2	BY THE END OF GRADES	BY THE END OF GRADE 8	BY THE END OF GRADE 12
	INDIVIDUALLY AND WIT	H OTHERS, STUDENTS	
D2.His.14.K-2. Generate possible reasons for an event or development in the past.	D2.His.14.3-5. Explain probable causes and effects of events and developments.	D2.His.14.6-8. Explain multiple causes and effects of events and developments in the past.	D2.His.14.9-12. Analyze multiple and complex causes and effects of events in the past.
Begins in grades 6–8	Begins in grades 6-8	D2.His.15.6-8. Evaluate the relative influence of various causes of events and developments in the past.	D2.His.15.9-12. Distinguish between long-term causes and triggering events in developing a historical argument.
D2.His.16.K-2. Select which reasons might be more likely than others to explain a historical event or development.	D2.His.16.3-5. Use evidence to develop a claim about the past.	D2.His.16.6-8. Organize applicable evidence into a coherent argument about the past.	D2.His.16.9-12. Integrate evidence from multiple relevant historical sources and interpretations into a reasoned argument about the past.
Begins in grades 3–5	D2.His.17.3-5. Summarize the central claim in a secondary work of history.	D2.His.17.6-8. Compare the central arguments in secondary works of history on related topics in multiple media.	D2.His.17.9-12. Critique the central arguments in secondary works of history on related topics in multiple media in terms of their historical accuracy.

Developing Claims and Using Evidence

This subsection focuses on argumentation. In contrast to opinions and explanations, argumentation involves the ability to understand the source-to-evidence relationship. That relationship emphasizes the development of claims and counterclaims and the purposeful selection of evidence in support of those claims and counterclaims. Students will learn to develop claims using evidence, but their initial claims will often be tentative and probing. As students delve deeper into the available sources, they construct more

sophisticated claims and counterclaims that draw on evidence from multiple sources. Whether those claims are implicitly or explicitly stated in student products, they will reflect the evidence students have selected from the sources they have consulted.

Indicators of Dimension 3—Developing Claims and Using Evidence—are detailed in the suggested K-12 Pathway for College, Career, and Civic Readiness in Table 26.

TABLE 26: Suggested K-12 Pathway for College, Career, and Civic Readiness Dimension 3, Developing Claims and Using Evidence

BY THE END OF GRADE 2	BY THE END OF GRADE 5	BY THE END OF GRADE 8	BY THE END OF GRADE 12
	INDIVIDUALLY AND WIT	H OTHERS, STUDENTS	
Begins in grades 3–5	D3.3.3-5. Identify evidence that draws information from multiple sources in response to compelling questions.	D3.3.6-8. Identify evidence that draws information from multiple sources to support claims, noting evidentiary limitations.	D3.3.9-12. Identify evidence that draws information directly and substantively from multiple sources to detect inconsistencies in evidence in order to revise or strengthen claims.
Begins in grades 3–5	D3.4.3-5. Use evidence to develop claims in response to compelling questions	D3.4.6-8. Develop claims and counterclaims while pointing out the strengths and limitations of both.	D3.4.9-12. Refine claims and counterclaims attending to precision, significance, and knowledge conveyed through the claim while pointing out the strengths and limitations of both.



NGSS Science and Engineering Practices* (September 2012 Draft)

Science and Engineering Practices	K-2 Condensed Practices	3-5 Condensed Practices	6-8 Condensed Practices	9-12 Condensed Practices
sking Questions and efining Problems	Asking questions and defining problems in grades K-2 huilds on	Asking questions and defining	Asking questions and defining	Asking questions and defining
	prior experiences and progresses	from grades K–2 experiences	grades K-5 experiences and	problems in grades 9–12 builds from
practice of science is to ask	to simple descriptive questions	and progresses to specifying	progresses to formulating and	graces to experiences and
nd refine questions that lead	that can be tested.	qualitative relationships.	refining empirically testable	and evaluating empirically testable
descriptions and			questions and explanatory models.	questions and explanatory models
planations of how the	 Ask questions about 	 Identify scientific (testable) 	31	and simulations.
itural and designed world	observations of the natural and	and non-scientific questions.	 Ask questions that arise from 	
orks and which can be	designed world.	 Ask questions based on careful 	phenomena, models, or	 Ask questions that arise from
npirically tested.		observations of phenomena	unexpected results.	phenomena, models, theory, or
		and information.	 Ask questions to clarify or identify 	unexpected results.
ngineering questions clarify		 Ask questions of others to 	the premise(s) of an argument.	 Ask questions that require
oblems to determine		clarify ideas or request	 Ask questions to determine 	relevant empirical evidence.
iteria for successful		evidence.	relationships between independent	 Ask questions to determine
ilutions and identify		 Ask questions that relate one 	and dependent variables.	quantitative relationships between
instraints to solve problems		variable to another variable.	 Ask questions that challenge the 	independent and dependent
out the designed world.		 Ask questions to clarify the 	interpretation of a data set.	variables.
		constraints of solutions to a	 Ask questions to refine a model, 	 Ask questions that challenge the
oth scientists and engineers		problem.	an explanation, or an engineering	premise of an argument, the
so ask questions to clarify		 Use prior knowledge to 	problem.	interpretation of a data set, or the
e ideas of others.		describe problems that can to	 Define design problems that have 	suitability of a design.
		be solved.	constraints or limits and criteria	 Define a problem about the
			for success.	natural or designed world
				considering criteria for successful
	27			results or solutions and constraint:



NGSS Science and Engineering Practices* (September 2012 Draft)

Practices	K-2 Condensed Practices	3-5 Condensed Practices	6-8 Condensed Deathers	1100
taining, Evaluating, and mmunicating Information	Obtaining, evaluating, and communicating information in K–2	Obtaining, evaluating, and communicating information in 3–5	Obtaining, evaluating, and	Obtaining, evaluating, and
entists and engineers must be e to communicate clearly and suasively the ideas and	uses observations and texts to communicate new information.	builds on K–2 and progresses to evaluating the merit and accuracy of ideas and methods.	builds on K–5 and progresses to evaluating the merit and validity of ideas and methods.	communicating information in 9–1 builds on K–8 and progresses to evaluating the validity and reliabili of the claims, methods, and design
thods they generate. Iquing and communicating as individually and in groups	 Read and comprehend grade- appropriate texts and/or use 	 Compare and/or synthesize across texts and/or other 	Communicate understanding of scientific information that is	Critically read scientific literature
critical professional activity.	other reliable media to acquire scientific and/or technical	reliable media to acquire and/or generate appropriate scientific	presented in different formats (e.g., verbally, graphically,	adapted for classroom use to identify key ideas and major points and to evaluate the validity
nmunicating information and	Critique and communicate	 Synthesize information in 	textually, mathematically).	and reliability of the daims,
as can be done in multiple	information or design ideas with	written text with that contained	ideas using scientific language	 Generate, synthesize,
phs, models, and equations	forms using models, drawings,	diagrams, and/or charts	and reasoning.	communicate, and critique claim
well as orally, in writing, and	writing, or numbers.	Generate and communicate	information from appropriate	methods, and designs that appe
ough extended discussions.	Record observations, thoughts,	scientific and/or technical	sources and evaluate the	media reports.
Itinle sources to acquire	alia lucas.	information orally and/or in	credibility of the publication,	 Recognize the major features of
armation that is used to		forms of modia and many industrial	authors, possible bias of the	scientific and technical writing a
iluate the merit and validity of		tables, diagrams, and charts	source, and methods used.	speaking and produce written a
ims, methods, and designs.		 Use models to share findings or 	knowledge and reasoning to	illustrated texts or oral
		solutions in oral and/or written	evaluate data, hypotheses,	ideas and accomplishments
		presentations, and/or extended	conclusions, and competing	accomplishments.
		discussions	information	

dapted from: National Research Council (2011). A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas. Committee on a Conceptual Framework for New K-12 Science Education Standards. Board on Science Education, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academy Press. Chapter 3: Dimension 1: Scientific and Engineering Practices September 2012

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NGSS Science and Engineering Practices* (September 2012 Draft)

cience and Engineering	K-2 Condensed Practices	3-5 Condensed Practices	6-8 Condensed Practices	0 40 000
gaging in Argument from idence	Engaging in argument from evidence in K–2 builds on prior	Engaging in argument from	Engaging in argument from	Engaging in argument from
	experiences and progresses to	experiences and progresses to	experiences and progresses to	evidence in 9–12 builds from K–8
ich explanation is the process by	comparing ideas and	critiquing the scientific	constructing a convincing	using appropriate and sufficient
reached	representations about the natural	explanations or solutions	argument that supports or refutes	evidence and scientific reasoning
reactive.	מוזם מכמולווכם אסוום.	proposed by peers by citing	claims for either explanations or	defend and critique claims and
science and engineering	Distinguish arguments that are	natural and designed world	solutions about the natural and	explanations about the natural ar
soning and argument based on	supported by evidence from		S. C. S. C. I.C.	also come from current scientific
dence are essential to	those that are not.	 Construct and/or support 	Use oral and written arguments	historical episodes in science.
ntifying the best explanation	 Listen actively to others' 	scientific arguments drawing	supported by empirical evidence	
a natural phenomenon or the	arguments and ask questions	on evidence, data, or a model.	and reasoning to support or	 Criticize and evaluate argument
it solution to a design problem.	ior ciarification.	 Compare and refine multiple 	refute an argument for a	and design solutions in light of
		arguments based on the	phenomenon or a solution to a	new evidence, limitations (e.g.,
enusts and engineers use		strengths and weaknesses of	problem.	trade-offs), constraints, and
millenduon to listen to,		the evidence supporting the	 Evaluate competing design 	ethical issues.
ipale, and evaluate competing		argument.	solutions based on jointly	 Evaluate the merits of competin
rits.		Respectfully provide and	developed and agreed-upon	arguments, design solutions,
		scientific arguments proposed	Compare two arguments from	 Evaluate the claims evidence a
entists and engineers engage		by peers by citing relevant	evidence to identify which is	reasoning of currently accepted
argumentation when		evidence and/or making logical	better by identifying flaws in	explanations or solutions as a
estigating a phenomenon,		arguments.	logic or methods.	basis for the merits of the
ting a design solution,			0.00	arguments.
olving questions about				 Construct a counter-argument ti
asurements, building data				is based in data and evidence th
dels, and using evidence to				challenges another proposed
ntify strengths and weaknesses				argument.
Claims.				

Reading Standards for Literature 6-12

The following standards offer a focus for instruction each year and help ensure that students gain adequate exposure to a range of texts and tasks. Rigor is also infused through the requirement that students read increasingly complex texts through the grades. Students advancing through the grades are expected to meet each year's grade-specific standards and retain or further develop skills and understandings mastered in preceding grades.

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ò	ណ់	4.	Cra	i٠			Key
Explain how an author develops the point of view of the narrator or speaker in a text.	Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot.	Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.	Craft and Structure	Describe how a particular story's or drama's plot unfolds in a series of episodes as well as how the characters respond or change as the plot moves toward a resolution.	Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.	Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	Grade 6 students: Key Ideas and Details
6	ίν	4.		Ŋ	5		
Analyze how an author develops and contrasts the points of view of different characters or narrators in a text.	Analyze how a drama's or poem's form or structure (e.g., soliloquy, sonnet) contributes to its meaning.	Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of rhymes and other repetitions of sounds (e.g., alliteration) on a specific verse or stanza of a poem or section of a story or drama.		Analyze how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot).	Determine a theme or central idea of a text and analyze its development over the course of the text; provide an objective summary of the text.	Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	Grade 7 students:
ق	ίν	4,		ÿ	2.		
Analyze how differences in the points of view of the characters and the audience or reader (e.g., created through the use of dramatic irony) create such effects as suspense or humor.	Compare and contrast the structure of two or more texts and analyze how the differing structure of each text contributes to its meaning and style.	Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.		Analyze how particular lines of dialogue or incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision.	Determine a theme or central idea of a text and analyze its development over the course of the text including its relationship to the characters, setting, and plot; provide an objective summary of the text.	Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.	Grade 8 students:

- Compare and contrast texts in different forms or (Not applicable to literature) when reading the text to what they perceive when they listen or watch. including contrasting what they "see" and "hear"

 - camera focus and angles in a film). to each medium (e.g., lighting, sound, color, or
 - version, analyzing the effects of techniques unique

 - (Not applicable to literature)
 - or departs from the text or script, evaluating the choices made by the director or actors. production of a story or drama stays faithful to Analyze the extent to which a filmed or live
- literature, including stories, dramas, and poems, in By the end of the year, read and comprehend of the same period as a means of understanding time, place, or character and a historical account how authors of fiction use or alter history.

Range of Reading and Level of Text Complexity

to similar themes and topics.

and fantasy stories) in terms of their approaches genres (e.g., stories and poems; historical novels

> 9 00

Compare and contrast a fictional portrayal of a

with scaffolding as needed at the high end of the the grades 6-8 text complexity band proficiently, By the end of the year, read and comprehend

range.

with scaffolding as needed at the high end of the the grades 6-8 text complexity band proficiently,

literature, including stories, dramas, and poems, in

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independently and proficiently. By the end of the year, read and comprehend . the high end of grades 6-8 text complexity band literature, including stories, dramas, and poems, at

ō,

(Not applicable to literature)

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the Bible, including describing how the material is rendered new. myths, traditional stories, or religious works such as themes, patterns of events, or character types from Analyze how a modern work of fiction draws on

Reading Standards for Informational Text K-5

The same of the sa			Grade I students:	Grade 2 dindente
- Kej	Key Ideas and Details			Single 4 students:
	questions about key details in a text.		Ask and answer questions about key details in a 1. text.	Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
ı !	topic and retell key details of a text.	2.	Identify the main topic and retell key details of a 2. text.	Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text.
'n	with prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.	Ñ	Describe the connection between two individuals, events, ideas, or pieces of information in a text.	
CT	Craft and Structure			steps in technical procedures in a text.
4.	With prompting and support, ask and answer	4		
	questions about unknown words in a text.	4.	Ask and answer questions to help determine or 4. clarify the meaning of words and phrases in a text.	Determine the meaning of words and phrases in a text relevant to a <i>grade 2 topic or subject area</i> .
'n	Identify the front cover, back cover, and title page of a book.	'n	Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.	
, 6	Name the author and illustrator of a text and define the role of each in presenting the ideas or information in a text.	6.	Distinguish between information provided by 6. pictures or other illustrations and information provided by the words in a text.	Identify the main purpose of a text, including what the author wants to answer, explain, or
Inte	Integration of Knowledge and Ideas			ACOUTING:
7.	With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts).	. 7.	Use the illustrations and details in a text to 7. describe its key ideas.	Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.
8.	With prompting and support, identify the reasons an author gives to support points in a text.	œ	Identify the reasons an author gives to support 8. points in a text.	Describe how reasons support specific points the author makes in a text.
	With prompting and support, identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).	9.	Identify basic similarities in and differences 9. between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).	Compare and contrast the most important points presented by two texts on the same topic.
Ran	Range of Reading and Level of Text Complexity			
1 0.	Actively engage in group reading activities with purpose and understanding.	10,	With prompting and support, read informational 10. texts appropriately complex for grade 1.	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 for Informational Text 6-12

Kej	Key Ideas and Details		Grade 7 students:	Grade 8 students:
-	Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	- }	Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inference drawn from the text.
·2.	Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.	2.	Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text.	 Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.
й	Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes).	й	Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events).	 Analyze how a text makes connections among and distinctions between individuals, ideas, or events (e.g., through comparisons, analogies, or categories).
Cra	Craft and Structure			
4.	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings.	4.	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.	 Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.
ù	Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas.	'n	Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to the development of the ideas.	 Analyze in detail the structure of a specific paragraph in a text, including the role of particular sentences in developing and refining a key concept.
6.	Determine an author's point of view or purpose in a text and explain how it is conveyed in the text.	6.	Determine an author's point of view or purpose in a text and analyze how the author distinguishes his or her position from that of others.	6. Determine an author's point of view or purpose in a text and analyze how the author acknowledges and responds to conflicting evidence or viewpoints.
Inte	Integration of Knowledge and Ideas			
7.	Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.	7.	Compare and contrast a text to an audio, video, or multimedia version of the text, analyzing each medium's portrayal of the subject (e.g., how the delivery of a speech affects the impact of the words).	 Evaluate the advantages and disadvantages of using different mediums (e.g., print or digital text, video, multimedia) to present a particular topic or idea.
œ	Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not.	ώ	Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims.	Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced.
ò	Compare and contrast one author's presentation of events with that of another (e.g., a memoir written by and a biography on the same person).	.9	Analyze how two or more authors writing about the same topic shape their presentations of key information by emphasizing different evidence or advancing different interpretations of facts.	9. Analyze a case in which two or more texts provide conflicting information on the same topic and identify where the texts disagree on matters of fact or interpretation.
Ran	Range of Reading and Level of Text Complexity	¥		
10.	By the end of the year, read and comprehend literary nonfiction in the grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.	10.	By the end of the year, read and comprehend literary nonfiction in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the	 By the end of the year, read and comprehend literary nonfiction at the high end of the grades 6-8 text complexity band independently and proficiently.

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Reading Standards for Literacy in History/Social Studies 6-12

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The standards below begin at grade 6; standards for K-5 reading in history/social studies, science, and technical subjects are integrated into the K-5 Reading standards. The CCR anchor standards and high school standards in literacy work in tandem to define college and career readiness expectations—the former providing broad standards, the latter providing additional specificity.

	Grades 6-8 students:		Grades 9-10 students:		Gradoc 11, 12 ct.:domto.
X	Key Ideas and Details				Ciades II-12 Students:
-	Cite specific textual evidence to support analysis of primary and secondary sources.		Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.	<u>-</u>	Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.
N	Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.	2	Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.	2.	Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.
M.	Identify key steps in a text's description of a process related to history/social studies (e.g., how a bill becomes law, how interest rates are raised or lowered).	ю	Analyze in detail a series of events described in a text; determine whether earlier events caused later ones or simply preceded them.	3.	Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain.
U	Craft and Structure				
4	Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.	4	Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social studies.	4.	Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines faction in Federalist No. 10).
.5	Describe how a text presents information (e.g., sequentially, comparatively, causally).	വ	Analyze how a text uses structure to emphasize key points or advance an explanation or analysis.	5.	Analyze in detail how a complex primary source is structured, including how key sentences, paragraphs, and larger portions of the text contribute to the whole.
9	Identify aspects of a text that reveal an author's point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts).	9	Compare the point of view of two or more authors for how they treat the same or similar topics, including which details they include and emphasize in their respective accounts.	9	Evaluate authors' differing points of view on the same historical event or issue by assessing the authors' claims, reasoning, and evidence.
C	Integration of Knowledge and Ideas				
7.	Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.	7.	Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text.	7.	Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., wisually, quantitatively, as well as in words) in order to address a question or solve a problem.
αi	Distinguish among fact, opinion, and reasoned judgment in a text.	αί	Assess the extent to which the reasoning and evidence in a text support the author's claims.	œί	Evaluate an author's premises, claims, and evidence by corroborating or challenging them with other information.
ത് 🖁	Analyze the relationship between a primary and secondary source on the same topic.	6	Compare and contrast treatments of the same topic in several primary and secondary sources.	6	Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources.
O	Range of Reading and Level of Text Complexity	>			
<u>6</u>	By the end of grade 8, read and comprehend history/social studies texts in the grades 6-8 text complexity band independently and proficiently.	0	By the end of grade 10, read and comprehend history/social studies texts in the grades 9-10 text complexity band independently and proficiently.	0	By the end of grade 12, read and comprehend history/social studies texts in the grades II-CCR text complexity band independently and proficiently.

Reading Standards for Literacy in Science and Technical Subjects 6-12

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6	Key Ideas and Details				
	Cite specific textual evidence to support analysis of science and technical texts.	-	Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.	÷	Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.
	Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.	2	Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.	. 2	Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.
	Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.	5,	Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined, in the text.	3.	Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.
G	Craft and Structure				
4.	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6-8 texts and topics.	4	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in specific scientific or technical context relevant to grades 9-10 texts and topics.	4	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades II-I2 texts and topics.
	Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.	r.;	Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).	.5	Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.
	Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.	9	Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, defining the question the author seeks to address.	.9	Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved.
4	Integration of Knowledge and Ideas				
	Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).	7	Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.	7.	Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.
	Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.	œ	Assess the extent to which the reasoning and evidence in a text support the author's claim or a recommendation for solving a scientific or technical problem.	8	Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.
6	Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.	6	Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.	6	Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when procesible

By the end of grade 12, read and comprehend science/technical texts in the grades 11-CCR text complexity band independently and proficiently.

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By the end of grade 10, read and comprehend science/technical texts in grades 9–10 text complexity band indepet ity and proficiently.

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By the end of grade 8, read and comprehend sence/technical texts in the grades 6-8 text amplexity band independently and proficiently.

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