



California's **COMMON CORE** Content Standards Seventh Grade

Map to Current Standards Prompts for Implementation

Essential Skills/Concepts
Academic Vocabulary
Question Stems

California CCSS assessments are set to roll out in the spring of 2014.
The earliest that new CCSS curriculum is projected to be considered for adoption will be 2014-15.
We are launching into CCSS using the curriculum and the materials we have now.
The prompts for implementation in this document were prepared by the Tulare County Office of Education.
The map to current standards was created by the Sacramento County Office of Education.
Together, they appear to be a good starting point for CCSS implementation.

Content Formatted and Printed Courtesy of Shoob Photography
PDF versions of this document are available at shoobphoto.com
Printed copies can be obtained by calling 209.567.0748

California's
COMMON CORE
Content Standards for
ELA and Mathematics
Seventh Grade

TABLE OF CONTENTS

READING STANDARDS LITERATURE	2 - 21
WRITING STANDARDS	22 - 34
SPEAKING & LISTENING	35 - 42
LANGUAGE STANDARDS	43 - 50
VISUAL DATA	51 - 53
MATHEMATICS STANDARDS RATIOS & PORPORTIONAL RELATIONSHIPS	54 - 59
THE NUMBER SYSTEM	60
EXPRESSIONS & EQUATIONS	61
GEOMETRY STATISTICS & PROBABILITY	62 - 64

READING STANDARDS

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.*

LITERATURE

Key Ideas and Details

Anchor: 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.

CURRENT standard: CA 5th grade Reading Comprehension standard 2.4: Draw inferences, conclusions, generalizations about text and support them with textual evidence and prior knowledge.

RL 6.1

1. Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

RL 7.1

1. Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

RL 8.1

1. Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.

ACADEMIC VOCABULARY/ COGNATES

- | | |
|--------------|-------------|
| • cite | citar |
| • analyze | analizar |
| • explicit | explícito |
| • inferences | inferencias |
| • textual | evidencia |
| • conclude | concluir |

ESSENTIAL SKILLS/CONCEPT

- Reading comprehension
- Analyze the text
- Identify explicit textual evidence
- Cite Evidence
- Draw inferences
- Support inference using textual evidence

TEACHING NOTES AND STRATEGIES

SBAC Claim # 1: Read Closely & Critically

QUESTIONS STEMS

- What textual evidence did you identify to support your analysis of the text?
- Cite several examples of textual evidence.
- What inferences can you draw from your analysis of the text?
- Show me in the text what makes you think that?
- What can you conclude from the text?
- Which evidence is most relevant?
- What can you infer from this paragraph? Explain your thinking.

READING STANDARDS

Key Ideas and Details

Anchor: Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.

CURRENT standard: 3.4 Identify and analyze recurring themes across works (e.g., the value of bravery, loyalty, and friendship; the effects of loneliness). 2.5 Write summaries of reading materials: a. Include the main ideas and most significant details. b. Use the student's own words, except for quotations. c. Reflect underlying meaning, not just the superficial details.

RL 6.2

2. 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.

RL 7.2

2. 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.

RL 8.2

2. 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.

ACADEMIC VOCABULARY/ COGNATES

- | | |
|-----------------|--------------|
| • determine | determinar |
| • theme | tema |
| • central idea | idea central |
| • analyze | analizar |
| • objective | objetivo |
| • summarize | resumir |
| • cite evidence | |

ESSENTIAL SKILLS/CONCEPT

- Reading Comprehension
- Recognize and analyze theme development
- Make inferences
- Write an objective summary of the text

TEACHING NOTES AND STRATEGIES

SBAC Claim # 1: Read Closely & Critically

QUESTIONS STEMS

- What is the theme or central idea?
- Cite evidence from the text to support your determination of the theme/central idea.
- _____ best captures the theme.
- An example of how the theme recurs/is developed in the text is_____.
- How can you objectively summarize the text ?
- What makes a summary objective?

READING STANDARDS

Key Ideas and Details

Anchor: Analyze how and why individuals, events, and ideas develop and interact over the course of a text.

CURRENT standard: 3.2 Identify events that advance the plot and determine how each event explains past or present action(s) or foreshadows future action(s).

RL 6.3

3. 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.

RL 7.3

3. Analyze how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot)

RL 8.3

3. 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.

ACADEMIC VOCABULARY/ COGNATES

• analyze	analizar
• setting	
• character	personaje
• character traits	características
• plot	
• drama	drama
• infer	inferir
• inference	inferencia

ESSENTIAL SKILLS/CONCEPT

- Analyze elements of story/drama
- Describe how characters change throughout a story or drama
- Describe how story elements influence the characters as the plot moves towards resolution

TEACHING NOTES AND STRATEGIES

Appendix B Sample Performance Task:

Students *analyze* how the playwright Louise Fletcher uses *particular elements of drama* (e.g., setting and dialogue) to create dramatic tension in her play *Sorry, Wrong Number*.

SBAC Claim # 1: Read Closely & Critically

QUESTIONS STEMS

- Describe the plot of a story or drama.
- How does the plot unfold?
- Describe the problem. How was it resolved?
- An example of how the plot is shaped by the setting is_____.
- What can you infer about plot and how it is shaped by the setting?
- An example of how a character evolves with the plot is_____.
- What can you infer about the character and how he is shaped by the setting?
- How does the use of dialogue help the reader understand character and plot?

READING STANDARDS

Craft and Structure

Anchor: 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.

CURRENT standard: not applicable

RL 6.4

4. 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.

RL 7.4

4. 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.

RL 8.4

4. 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.

ACADEMIC VOCABULARY/ COGNATES

- figurative meaning
- connotative meaning
- analyze analizar
- specific especifico
- impact impacto
- tone tono
- word choice
- determine determinar

ESSENTIAL SKILLS/CONCEPT

- Understand connotations/denotations
- Understand figurative language (simile, metaphor, analogy, hyperbole, personification, idioms, onomatopoeia)
- Identify repetition of sounds (rhyme scheme, alliteration, assonance)
- Understand how word choice impacts meaning
- Understand how word choice impacts tone

TEACHING NOTES AND STRATEGIES

SBAC Claim # 5: Use oral and written language skillfully

QUESTIONS STEMS

- What does the word/phrase _____ mean in this selection?
- The word/phrase is an example of_____.
- Without changing the meaning of the sentence, what word can best be used to replace the underlined part?
- How does the author's use of repetition of sounds impact the tone of the text?
- According to this passage, an_____ is like a _____because both_____.
- The author uses connotation to_____.

READING STANDARDS

Craft and Structure

Anchor: 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.

CURRENT standard: not applicable

RL 6.5

5. 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.

RL 7.5

5. Analyze how a drama's or poem's form or structure (e.g., soliloquy, sonnet) contributes to its meaning.

RL 8.5

5. 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.

ACADEMIC VOCABULARY/ COGNATES

- | | |
|------------------|----------------------|
| • drama | drama |
| • poem | poema |
| • analyze | analizar |
| • scene | escena |
| • stanza | |
| • text structure | estructura del texto |
| • theme | tema |
| • setting | |
| • plot | |

ESSENTIAL SKILLS/CONCEPT

- Understand and identify types of drama and poetry
- Analyze the form or structure of drama and poetry
- Interpret the meaning of drama and poetry
- Understand and analyze how text structure contributes to the meaning of a drama or poem

TEACHING NOTES AND STRATEGIES

SBAC Claim # 1: Read Closely & Critically

QUESTIONS STEMS

- What is the structure of the text?
- What is the meaning of the text?
- How does the structure of the text contribute to its meaning?
- How does the sentence, chapter, scene, or stanza fit into the overall structure of a _____?
- How would the meaning of the poem /drama have been different if it were written as a _____?

READING STANDARDS

Craft and Structure

Anchor: Assess how point of view or purpose shapes the content and style of a text.

CURRENT standard: 3.3 Analyze characterization as delineated through a character's thoughts, words, speech patterns, and actions; the narrator's description; and the thoughts, words, and actions of other characters. 3.5 Contrast points of view (e.g., first and third person, limited and omniscient, subjective and objective) in narrative text and explain how they affect the overall theme of the work.

RL 6.6

6. Explain how an author develops the point of view of the narrator or speaker in a text

RL 7.6

6. Analyze how an author develops and contrasts the points of view of different characters or narrators in a text.

RL 8.6

6. 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.

ACADEMIC VOCABULARY/ COGNATES

- | | |
|-----------------|----------------|
| • author | autor(a) |
| • point of view | punto de vista |
| • develop | |
| • narrator | narrador(a) |
| • omniscient | omnisciente |
| • subjective | sujeito |
| • objective | objeto |

ESSENTIAL SKILLS/CONCEPT

- Understand and identify various points of view
- Understand and explain the development of the narrators or speakers point of view.
- Contrast points of view

TEACHING NOTES AND STRATEGIES

SBAC Claim # 1: Read Closely & Critically

QUESTIONS STEMS

- Which words from the text show that it is written in _____ person?
- The selection is told from the point of view of _____.
- What perspective or point of view does each character have?
- How/why does _____'s point of view differ from that of another character?
- Which sentence from the text best shows that the narrator's point of view is subjective/objective?
- How does the author's word choice help to develop the narrator's or speaker's point of view?

READING STANDARDS

Integration of Knowledge and Ideas

Anchor: Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

CURRENT standard: not applicable

RL 6.7

7. Compare and contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what they “see” and “hear” when reading the text to what they perceive when they listen or watch

RL 7.7

7. Compare and contrast a written story, drama, or poem to its audio, filmed, staged, or multimedia version, analyzing the effects of techniques unique to each medium (e.g., lighting, sound, color, or camera focus and angles in a film).

RL 8.7

7. Analyze the extent to which a filmed or live production of a story or drama stays faithful to or departs from the text or script, evaluating the choices made by the director or actors.

ACADEMIC VOCABULARY/

COGNATES

- | | |
|--------------|---------------|
| • compare | comparar |
| • contrast | contrastar |
| • medium | |
| • audio | audio |
| • drama | drama |
| • poem | poema |
| • film | filmar (v.t.) |
| • stage | |
| • multimedia | |
| • production | producción |

ESSENTIAL SKILLS/CONCEPT

- Compare & contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text
- Analyze effects unique to each medium
 - Lighting
 - Sound
 - Color
 - Camera focus
 - Camera angles

TEACHING NOTES AND STRATEGIES

SBAC Claim # 1: Read Closely & Critically

QUESTIONS STEMS

- How does reading a story compare to the audio or video version?
- What medium most impacts your understanding of the selected work?
- What senses were most stimulated by the production?
- Select an event from the book and compare it to a scene from the production. How are they different and why?
- Evaluate the effectiveness of the media techniques used to portray the work.

READING STANDARDS

Integration of Knowledge and Ideas

Anchor: Not applicable

CURRENT standard: not applicable

RL 6.8

8. (Not applicable to literature)

RL 7.8

8. (Not applicable to literature)

RL 8.8

8. (Not applicable to literature)

NOTES

READING STANDARDS

Integration of Knowledge and Ideas

Anchor: Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

CURRENT standard: not applicable

RL 6.9

9. Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics.

RL 7.9

9. Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history.

RL 8.9

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

ACADEMIC VOCABULARY/ COGNATES

- Compare comparar
- Contrast contrastar
- historical novel
- historical account
- historical event
- fiction ficción
- alter alterar
- accurate (precise) preciso

ESSENTIAL SKILLS/CONCEPT

- Distinguish between historical fiction and historical accounts.
- Identify the historical event in terms of time, place, and/or character.
- Identify how the author used or altered history to write a fictional portrayal.
- Compare and contrast the historical events as they were portrayed in the fictional story to the historical account of the same event.

TEACHING NOTES AND STRATEGIES

Appendix B Sample Performance Task:

Students *compare and contrast* Laurence Yep's *fictional portrayal* of Chinese immigrants in turn-of-the-twentieth-century San Francisco in *Dragonwings* to *historical accounts of the same period* (using materials detailing the 1906 San Francisco earthquake) in order to glean a deeper *understanding of how authors use or alter historical sources* to create a sense of *time and place* as well as make fictional *characters* lifelike and real.

SBAC Claim # 1: Read Closely & Critically

QUESTIONS STEMS

- How does the author use/alter history to _____?
- How are historical events and the fictional event the same and/ or different?
- How does the author's portrayal of the character compare to historical accounts?
- What could the author have done to provide a more accurate portrayal of the time period/place?

READING STANDARDS

Range of Reading & Level of Text Complexity

Anchor: Read and comprehend complex literary and informational texts independently and proficiently..

CURRENT standard: not applicable

RL 6.10

10. By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.

RL 7.10

10. By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.

RL 8.10

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

ACADEMIC VOCABULARY/ COGNATES

- | | |
|-----------------|-------------|
| • genre | género |
| • literature | literatura |
| • drama | drama |
| • poetry | poesia |
| • fluency | fluidez |
| • comprehension | comprensión |

ESSENTIAL SKILLS/CONCEPT

- Read various forms of literature fluently
- Demonstrate comprehension of various forms of literary text
- Read independently and comprehend complex texts.
- Make an effort to independently read texts of increasing complexity.
- Monitor comprehension

TEACHING NOTES AND STRATEGIES

Not applicable

QUESTIONS STEMS

- What have you read independently lately?
- What genres have you recently read?
- What genre did you enjoy the most?
- Have you read multiple books by the same author?
- Who is your favorite author?
- Do you think you are ready to read a more complex text or different type of literature?
- What is the lexile level of this text?
- Briefly summarize the plot and theme of the text.

READING STANDARDS

INFORMATIONAL TEXT

Key Ideas and Details

Anchor: 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.

CURRENT standard: not applicable

RI 6.1

1. Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

RI 7.1

1. Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

RI 8.1

1. Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.

ACADEMIC VOCABULARY/ COGNATES

- cite citar
- analyze analizar
- explicit expícito
- textual evidence
- draw inferences

ESSENTIAL SKILLS/CONCEPT

- Reading comprehension
- Analyze the text
- Identify explicit textual evidence
- Cite evidence
- Draw inferences
- Support inference using several pieces from the text

TEACHING NOTES AND STRATEGIES

SBAC Claim # 1: Read Closely & Critically

QUESTIONS STEMS

- What is your analysis of the text?
- What textual evidence did you identify to support your analysis of the text?
- Cite several examples.
- What inferences can you draw from your analysis of the text?
- Show me in the text what makes you think that_____.

READING STANDARDS

Key Ideas and Details

Anchor: Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.

CURRENT standard: 2.4 Identify and trace the development of an author's argument, point of view, or perspective in text. 2.5 Write summaries of reading materials: a. Include the main ideas and most significant details. b. Use the student's own words, except for quotations. c. Reflect underlying meaning, not just the superficial details.

RI 6.2

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.

RI 7.2

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.

RI 8.2

2. 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.

ACADEMIC VOCABULARY/

COGNATES

- | | |
|----------------|--------------|
| • determine | determinar |
| • central idea | idea central |
| • analyze | analizar |
| • objective | objeto |
| • summary | resumir |

ESSENTIAL SKILLS/CONCEPT

- Reading Comprehension
- Determine central ideas
- Analyze development of central ideas
- Formulate an objective summary of the text

TEACHING NOTES AND STRATEGIES

SBAC Claim # 1: Read Closely & Critically

QUESTIONS STEMS

- What is the central idea? Is there more than one central idea?
- How are the central ideas developed?
- Cite evidence from the text to support your determination of the central idea.
- An example of how the central idea recurs in the text is _____.
- How can you objectively summarize the text?

READING STANDARDS

Key Ideas and Details

Anchor: Analyze how and why individuals, events, and ideas develop and interact over the course of a text

CURRENT standard: 2.3 Analyze text that uses the cause-and-effect organizational pattern.

RI 6.3

3. Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes).

RI 7.3

3. 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).

RI 8.3

3. Analyze how a text makes connections among and distinctions between individuals, ideas, or events (e.g., through comparisons, analogies, or categories).

ACADEMIC VOCABULARY/ COGNATES

- | | |
|-----------------------|---------------|
| • analyze | analizar |
| • illustrate | ilustrar |
| • explain | explicar |
| • elaborate | elaborar |
| • events | |
| • individuals | individuos |
| • interactions | interacciones |
| • influence | influir |
| • detail (noun, verb) | detalles |

ESSENTIAL SKILLS/CONCEPT

- Identify individuals, events and ideas
- Analyze the interaction between individuals, events and ideas

TEACHING NOTES AND STRATEGIES

SBAC Claim # 1: Read Closely & Critically

QUESTIONS STEMS

- What change of events was influential?
- How did one individual influence another?
- What interaction influenced future events?

READING STANDARDS

Craft and Structure

Anchor: 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.

CURRENT standard: not applicable

RI 6.4

4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings.

RI 7.4

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.

RI 8.4

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 specific word choices on meaning and tone, including analogies or allusions to other texts.

ACADEMIC VOCABULARY/ COGNATES

- | | |
|-----------------------|------------|
| • phrases | frases |
| • figurative meaning | |
| • connotative meaning | |
| • analyze | analizar |
| • specific | especifico |
| • impact | impacto |
| • meaning | |
| • tone | tono |
| • repetition | repetición |

ESSENTIAL SKILLS/CONCEPT

- Identify and interpret connotations
- Identify and interpret figurative language
- Identify and interpret technical language
- Analyze impact of word choice on meaning & tone

TEACHING NOTES AND STRATEGIES

Appendix B Sample Performance Task:

Students *determine the figurative and connotative meanings* of words such as *wayfaring, laconic, and taciturnity* as well as of phrases such as *hold his peace* in John Steinbeck's *Travels with Charley: In Search of America*. They analyze how Steinbeck's *specific word choices* and diction impact the *meaning and tone* of his writing and the characterization of the individuals and places he describes.

SBAC Claim # 5: Use oral and written language skillfully

QUESTIONS STEMS

- What does the word/phrase _____ mean in this selection?
- Without changing the meaning of the sentence, which word can best be used to replace the underlined part?
- Which of the following synonyms is closest in the meaning to the word _____?
- The author uses connotation to _____.
- What is the technical meaning of the word?
- What message does the author convey?
- What is the tone of the selection?
- How does the author's word choice impact the meaning and tone of the passage?

READING STANDARDS

Craft and Structure

Anchor: 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.

CURRENT standard: not applicable

RI 6.5

5. 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.

a. Analyze the use of text features (e.g., graphics, headers, captions) in popular media.

RI 7.5

5. 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.

a. Analyze the use of text features (e.g., graphics, headers, captions) in public documents.

RI 8.5

5. 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.

a. Analyze the use of text features (e.g., graphics, headers, captions) in consumer materials.

ACADEMIC VOCABULARY/ COGNATES

- | | |
|------------------|----------------------|
| • analyze | analizar |
| • text structure | estructura del texto |
| • major | |
| • sections | secciones |
| • contribute | contribuir |
| • graphics | gráficos |
| • headers | |
| • captions | |

ESSENTIAL SKILLS/CONCEPT

- Identify and analyze text structures
- Analyze the use of text features
- Compare and contrast overall structure in two or more texts
- Analyze public documents
- Understand part to whole organizational structure
- Understand and analyze how parts (sentences, paragraphs, chapters, or sections) contribute to the whole (development of ideas).

TEACHING NOTES AND STRATEGIES

SBAC Claim # 1: Read Closely & Critically

QUESTIONS STEMS

- What is the text structure of each text?
- How does the structure of each text contribute to its meaning?
- How are the text structures similar/different?
- How do paragraph _____ and _____ relate to each other? How do they support the author's position?
- What text features does the author use to develop his ideas?
- What effect do the text features have on the reader, and why?

READING STANDARDS

Craft and Structure

Anchor: Assess how point of view or purpose shapes the content and style of the text.

CURRENT standard: 2.4 Identify and trace the development of an author's argument, point of view, or perspective in text.

RI 6.6

6. Determine an author's point of view or purpose in a text and explain how it is conveyed in the text.

RI 7.6

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.

RI 8.6

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.

ACADEMIC VOCABULARY/ COGNATES

- author autor
- point of view punto de vista
- develop
- narrator narrador
- speaker in text

ESSENTIAL SKILLS/CONCEPT

- Identify and analyze point of view
- Identify and analyze purpose
- Understand and explain how the point of view/purpose is distinguished from that of others

TEACHING NOTES AND STRATEGIES

Appendix B Sample Performance Task:

Students *determine the point of view* of John Adams in his "Letter on Thomas Jefferson" and *analyze how he distinguishes* his position from an alternative approach articulated by Thomas Jefferson.

SBAC Claim # 1: Read Closely & Critically

QUESTIONS STEMS

- What is the author's point or view or purpose?
- How does the author's word choice help develop the point of view/purpose?
- How does the author distinguish their position from that of others?

READING STANDARDS

Integration of Knowledge and Ideas

Anchor: Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

CURRENT standard: not applicable

RI 6.7

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..

RI 7.7

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).

RI 8.7

7. Evaluate the advantages and disadvantages of using different mediums (e.g., print or digital text, video, multimedia) to present a particular topic or idea.

ACADEMIC VOCABULARY/

COGNATES

- | | |
|------------------------------|----------------|
| • integrate | integrar |
| • evaluate | evaluar |
| • format | formato |
| • compare | comparar |
| • contrast | contrastar |
| • text | texto |
| • information | información |
| • analyze | analizar |
| • portrayal (representation) | representación |
| • delivery | |
| • impact | impacto |
| • summarize | resumir |

ESSENTIAL SKILLS/CONCEPT

- Compare & contrast the experience of reading a text to listening to or viewing an audio, video, or multimedia version of the text
- Analyze and compare the portrayal of the subject in each medium

TEACHING NOTES AND STRATEGIES

SBAC Claim # 1: Read Closely & Critically

QUESTIONS STEMS

- How does reading the text compare to the audio or video version?
- What medium most impacts your understanding of the selected work?
- What senses were most stimulated by the production?
- Select an event from the text and compare it to a scene from the production. How are they different and why?
- Evaluate the effectiveness of the media techniques used to portray the work.

READING STANDARDS

Integration of Knowledge and Ideas

Anchor: 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.

CURRENT standard: 2.6 Assess the adequacy accuracy, and appropriateness of the author's evidence to support claims and assertions, noting instances of bias and stereotyping.

RI 6.8

8. 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.

RI 7.8

8. 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.

RI 8.8

8. 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.

ACADEMIC VOCABULARY/ COGNATES

- | | |
|------------------------|---------------|
| • evaluate | evaluar |
| • argument | argumento |
| • sound (sensible) | sensato |
| • reasoning | razonamiento |
| • relevant (pertinent) | pertinente |
| • sufficient | suficiente |
| • evidence | |
| • support | |
| • claims | reclamaciones |

ESSENTIAL SKILLS/CONCEPT

- Understand how claims and/or arguments are supported by evidence from the text.
- Trace the specific claims of an argument.
- Evaluate evidence relevant to the claims.

TEACHING NOTES AND STRATEGIES

SBAC Claim # 1: Read Closely & Critically

QUESTIONS STEMS

- What is the argument in the text?
- Identify the claims used to support the argument.
- Are these claims valid/invalid, and if so, why?
- Is there sufficient evidence to support the claims?
- Is the argument well developed and supported?
- Explain your answer.

READING STANDARDS

Integration of Knowledge and Ideas

Anchor: Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

CURRENT standard: CA 4th grade standard Reading Comprehension 2.5: Compare and contrast information on the same topic after reading several passages or articles.

RI 6.9

9. 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).

RI 7.9

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.

RI 8.9

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.

ACADEMIC VOCABULARY/ COGNATES

- | | |
|-------------------|----------------|
| • advance | avanzar |
| • analyze | analizar |
| • compare | comparar |
| • contrast | contrastar |
| • difference | diferencia |
| • emphasize | |
| • event | |
| • evidence | |
| • key information | |
| • perspective | perspectiva |
| • point of view | punto de vista |
| • presentation | presentación |
| • similar | similar |

ESSENTIAL SKILLS/CONCEPT

- Compare & contrast two texts
- Identify and analyze interpretation of facts
- Identify and analyze use of evidence

TEACHING NOTES AND STRATEGIES

SBAC Claim # 1: Read Closely & Critically

QUESTIONS STEMS

- What topic do both authors address?
- How do their interpretation of facts differ?
- What evidence does each author use to shape his/her presentation of key information?
- How does the evidence differ?
- How does one author advance a different interpretation of the facts as compared to the other author?

READING STANDARDS

Range of Reading & Level of Text Complexity

Anchor: Read and comprehend complex literary and informational texts independently and proficiently.

CURRENT standard: 2.1 Understand and analyze the differences in structure and purpose between various categories of informational materials (e.g., textbooks, newspapers, instructional manuals, signs).

RI 6.10

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.

RI 7.10

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.

RI 8.10

10. 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.

ACADEMIC VOCABULARY/ COGNATES

- | | |
|----------------------|-------------------|
| • comprehension | comprensión |
| • drama | drama |
| • fluency | fluidez |
| • informational text | texto informativo |
| • literature | literatura |
| • nonfiction | no ficción |
| • poetry | poesía |

ESSENTIAL SKILLS/CONCEPT

- Read various forms of literary nonfiction fluently
- Demonstrate comprehension of various forms of literary text
- Read independently and comprehend complex texts.
- Make an effort to independently read texts of increasing complexity.
- Monitor comprehension

TEACHING NOTES AND STRATEGIES

SBAC Claim # 1: Read Closely & Critically

QUESTIONS STEMS

- What have you read independently lately?
- What are the topics/central ideas of the nonfiction texts that you have recently read?
- What topic did you enjoy the most?
- Have you read multiple books by the same author?
- Who is your favorite author?
- Do you think you are ready to read a more complex text or different type of literary nonfiction?
- What is the lexile level of this text?
- Briefly summarize the central idea of the text

WRITING STANDARDS

The following standards for K–5 offer a focus for instruction each year to help ensure that students gain adequate mastery of a range of skills and applications. Each year in their writing, students should demonstrate increasing sophistication in all aspects of language use, from vocabulary and syntax to the development and organization of ideas, and they should address increasingly demanding content and sources. *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.* The expected growth in student writing ability is reflected both in the standards themselves and in the collection of annotated student writing samples in Appendix C.

WRITING

Text Types & Purposes

Anchor: Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

CURRENT standard: 1.2 Support all statements and claims with anecdotes, descriptions, facts and statistics, and specific examples. 2.4 Write persuasive compositions: a. State a clear position or perspective in support of a proposition or proposal. b. Describe the points in support of the proposition, employing well-articulated evidence. c. Anticipate and address reader concerns and counterarguments.

W 6.1

1. Write arguments to support claims with clear reasons and relevant evidence.
 - a. Introduce claim(s) and organize the reasons and evidence clearly.
 - b. Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text.
 - c. Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons.
 - d. Establish and maintain a formal style.
 - e. Provide a concluding statement or section that follows from the argument presented.

W 7.1

1. Write arguments to support claims with clear reasons and relevant evidence.
 - a. Introduce claim(s), acknowledge **and address** alternate or opposing claims, and organize the reasons and evidence logically.
 - b. Support claim(s) **or counterarguments** with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text.
 - c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), reasons, and evidence.
 - d. Establish and maintain a formal style.
 - e. Provide a concluding statement or section that follows from and supports the argument presented.

W 8.1

1. Write arguments to support claims with clear reasons and relevant evidence.
 - a. Introduce claim(s), acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically.
 - b. Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text.
 - c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence.
 - d. Establish and maintain a formal style.
 - e. Provide a concluding statement or section that follows from and supports the argument presented.

WRITING STANDARDS

ACADEMIC VOCABULARY/

COGNATES

- arguments/counterarguments
 - argumentos/argumentos
 - contrarios
- claims/alternate or opposing claims
- address
- relevant evidence
- credible source
- topic tema
- text texto
- persuade persuadir
- style estilo
- conclusion conclusión
- cohesion cohesion
- supporting evidence

ESSENTIAL SKILLS/CONCEPT

- Establish and maintain formal text structure
- Use words, phrases, and clauses to create cohesion
- Sustain an objective style and tone
- Understand the purpose of writing
- Understand expository text structure
- Understand starting point, purpose, form, audience, voice, and point of view.
- Use precise verbs, nouns, and adjectives to paint a visual image in the mind of the reader
- Write a multi-paragraph essay
- Provide a concluding statement

TEACHING NOTES AND STRATEGIES

See Appendix C: Video

Pages 40 -41

SBAC Claim # 2: Write Effectively

QUESTIONS STEMS

- Introduce a claim, acknowledge and address alternate/opposing claims.
- In sentence _____, the author supports his counter argument with relevant evidence.
- Which sentences best support the counterargument?
- What data does the author use to support his claim?
- Does the data come from a credible source?
- Rewrite the concluding statement to support the argument presented.

WRITING STANDARDS

Text Types & Purposes

Anchor: Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.

CURRENT standard: 1.1 Create an organizational structure that balances all aspects of the composition and uses effective transitions between sentences to unify important ideas. 1.2 Support all statements and claims with anecdotes, descriptions, facts and statistics, and specific examples. CA 6th grade Writing Application standard 2.2: Write expository compositions (e.g., description, explanation, comparison and contrast, problem and solution): a. state the thesis or purpose. b. Explain the situation. c. Follow an organizational pattern. d. Offer persuasive evidence to validate arguments and conclusions as needed.

W 6.2

2. Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
 - a. Introduce a topic **or thesis statement**; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/ effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
 - b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.
 - c. Use appropriate transitions to clarify their relationships among ideas and concepts.
 - d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
 - e. Establish and maintain a formal style.
 - f. Provide a concluding statement or section that follows from the information or explanation presented.

W 7.2

2. Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
 - a. Introduce a topic **or thesis statement** clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/ effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
 - b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.
 - c. Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts.
 - d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
 - e. Establish and maintain a formal style.
 - f. Provide a concluding statement or section that follows from and supports the information or explanation presented.

W 8.2

2. Write informative/explanatory texts, **including career development documents (e.g., simple business letters and job applications)**, to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
 - a. Introduce a topic **or thesis statement** clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
 - b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.
 - c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.
 - d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
 - e. Establish and maintain a formal style.
 - f. Provide a concluding statement or section that follows from and supports the information or explanation presented.

WRITING STANDARDS

ACADEMIC VOCABULARY/

COGNATES

• analysis	análisis
• cause/effect	causa/efecto
• classification	clasificación
• cohesion	cohesión
• compare/	comparar
• contrast	contrastar
• conclusion	conclusión
• concrete	
• convey	
• definition	definición
• domain-specific	
• explanatory	explicativo
• formal style	estilo formal
• formatting	
• heading	
• informative	informativo
• introduction	introducción
• organization	organización
• relevant content	contenido perteniente
• selection	selección
• thesis statement	
• topic	tema
• transitions	transición

ESSENTIAL SKILLS/CONCEPT

- Be able to organize ideas, concepts, and information prior to writing.
- Be able to develop a topic using relevant facts, definitions, quotations, and concrete details.
- Understand how to write a cohesive, precise thesis statement
- Be able to establish and maintain a formal style when writing multi-paragraph essays.
- Be able to use appropriate transitions to create cohesion and clarify relationships among ideas and concepts.
- Understand how to write a concluding statement that follows from and supports the information or explanation presented.

TEACHING NOTES AND STRATEGIES

See Appendix C: Geographic Report***

page 42 - 48

SBAC Claim # 2: Write Effectively

QUESTIONS STEMS

- Identify the thesis statement in the selection.
- What is the author's thesis?
- Which sentences best support the author's thesis?
- How does the author organize his ideas?
- List the details used by the author to convey his ideas.
- What charts & tables does the author provide to support his thesis?
- How could the author use multimedia to aid in comprehension?
- How could the author use cause/effect to better convey his ideas?
- What additional comparisons could the author make to analyze the content?
- Is research cited? If so, how?
- How does the author conclude?
- Does the conclusion support the information or explanation presented?

WRITING STANDARDS

Text Types & Purposes

Anchor: Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

CURRENT standard: 1.1 Create an organizational structure that balances all aspects of the composition and uses effective transitions between sentences to unify important ideas. 2.1 Write fictional or autobiographical narratives: a. Develop a standard plot line (having a beginning, conflict, rising action, climax, and denouement) and point of view. b. Develop complex major and minor characters and a definite setting. c. Use a range of appropriate strategies (e.g., dialogue; suspense; naming of specific narrative action, including movement, gestures, and expressions).

W 6.3

3. Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.
- Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.
 - Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters.
 - Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another.
 - Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events.
 - Provide a conclusion that follows from the narrated experiences or events.

W 7.3

3. Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.
- Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.
 - Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters.
 - Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another.
 - Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.
 - Provide a conclusion that follows from and reflects on the narrated experiences or events.

W 8.3

3. Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.
- Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.
 - Use narrative techniques, such as dialogue, pacing, description, and reflection, to develop experiences, events, and/or characters.
 - Use a variety of transition words, phrases, and clauses to convey sequence, signal shifts from one time frame or setting to another, and show the relationships among experiences and events.
 - Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.
 - Provide a conclusion that follows from and reflects on the narrated experiences or events.

WRITING STANDARDS

ACADEMIC VOCABULARY/

COGNATES

- beginning, middle, end
- characters
- concrete
- context contexto
- convey
- descriptive language lenguaje descriptivo
- dialogue diálogo
- engage
- event sequence
- mood
- narrator narrador
- orient
- pacing
- plot
- point of view punto de vista
- precise preciso
- reflect reflexionar
- resolution resolución
- rising action
- sensory details
- setting

ESSENTIAL SKILLS/CONCEPT

- Understand the narrative organizational text structure.
- Understand how the author engages and orients the reader by establishing a context and point of view.
- Understand how the author engages and orients the reader by introducing a narrator and/or character.
- Understand how the author engages and orients the reader by organizing an event sequence that unfolds naturally and logically.
- Understand narrative techniques: dialogue, pacing, & description
- Understand how the author uses narrative techniques to develop experiences, events and/or characters
- Understand how the author uses a variety of transition words and phrases to convey sequence and signal shifts from one time frame or setting to another.
- Understand story plot line: exposition, rising action (complication/problem) climax (crisis), falling action, and resolution of problem.
- Understand use of literary devices
- Understand reflection; be able to reflect on experiences to provide a conclusion.

TEACHING NOTES AND STRATEGIES

SBAC Claim # 2: Write Effectively

QUESTIONS STEMS

- What is the main problem or conflict in the story?
- In which sentences does the author establish his/her point of view?
- How does the author introduce the narrator? Who is the narrator?
- Name the first event that leads to the unfolding of the story?
- Which significant events reveal the problem in the story?
- Identify the details the author uses to create the mood of the story.
- Is foreshadowing used in the story? If so, how?
- How does the author convey shifts from one time period to another? Name the events that detail these shifts.
- How does the author use dialogue to develop the plot?
- How does _____ affect the plot?
- How do the characters impact the problem?
- How do the characters impact the resolution?
- How does _____ change throughout the story?
- Identify the details of the event that indicate the problem has been resolved.

WRITING STANDARDS

Production & Distribution of Writing

Anchor: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

CURRENT standard: 1.1 Create an organizational structure that balances all aspects of the composition and uses effective transitions between sentences to unify important ideas.

W 6.4

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)

W 7.4

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)

W 8.4

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)

ACADEMIC VOCABULARY/ COGNATES

• organization	organización
• style	estilo
• task	tarea
• purpose	propósito
• audience	audiencia

ESSENTIAL SKILLS/CONCEPT

- Organize ideas, concepts, and information prior to writing
- Understand the writing task
- Understand the purpose for writing
- Understand the audience
- Write well-constructed sentences
- Know how to write a clear, concise thesis statement
- Write well-crafted paragraphs
- Be able to use appropriate transitions to create cohesion and clarify relationships among ideas and concepts.
- Be able to understand and use the writing process
- Be able to write a strong conclusion that supports ideas presented in the writing

TEACHING NOTES AND STRATEGIES

SBAC Claim # 2: Write Effectively

QUESTIONS STEMS

- What form of writing does the writing prompt call for? How do you know?
- Who is the audience?
- How will you organize your thinking before beginning to write?
- Will your writing include a thesis statement?
- How will you conclude your writing?
- What is your purpose for writing?
- What style will you use? Formal? Informal?
- What can you add in this paragraph to make your writing clearer?

WRITING STANDARDS

Production & Distribution of Writing

Anchor: Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.

CURRENT standard: 1.7 Revise writing to improve organization and word choice after checking the logic of the ideas and the precision of the vocabulary.

W 6.5

5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.

W 7.5

5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.

W 8.5

5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.

ACADEMIC VOCABULARY/ COGNATES

- editing
- language convention convenciones de lenguaje
- organization organización
- planning planificación
- revising revisando
- rewriting

ESSENTIAL SKILLS/CONCEPT

- Organize information prior to writing
- Implement the writing process by: planning, revising, editing, and rewriting.
- Edit for language conventions
- Understand the purpose for writing
- Understand and address the audience
- Craft a clear, concise thesis statement
- Write well-constructed sentences
- Craft well written paragraphs
- Incorporate appropriate transitions to create cohesion and clarify relationships among ideas and concepts.
- Write a strong conclusion that supports ideas presented in the writing

TEACHING NOTES AND STRATEGIES

Not applicable

QUESTIONS STEMS

- Which would be the best opening sentence?
- Which would be the best thesis statement?
- What is the best title for this selection?
- What sentence best concludes this selection?
- Which sentence can be deleted without changing the meaning of the selection?

WRITING STANDARDS

Production & Distribution of Writing

Anchor: Use technology, including the internet, to produce and publish writing and to interact and collaborate with others.

CURRENT standard: 1.6 Create documents by using word-processing skills and publishing programs; develop simple databases and spreadsheets to manage information and prepare reports.

W 6.6

6. 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 three pages in a single sitting.

W 7.6

6. Use technology, including the Internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources.

W 8.6

6. Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas efficiently as well as to interact and collaborate with others.

ACADEMIC VOCABULARY/ COGNATES

- | | |
|-----------------|-------------|
| • cite | citar |
| • collaborate | colaborar |
| • interact | interactuar |
| • link conexión | |
| • produce | producir |
| • publish | publicar |
| • technology | tecnología |

ESSENTIAL SKILLS/CONCEPT

- Be able to keyboard accurately
- Possess computer literacy
- Know how to use computer publishing software
- Know how to format and design page layouts
- Know how to embed links into a document
- Know how to access collaborative sources to discuss topics of interest
- Understand Moodle and know how to access and appropriate blogs
- Know how to interact with others using distance learning

TEACHING NOTES AND STRATEGIES

Not applicable

QUESTIONS STEMS

- Name the software programs available for you to publish your writing.
- How do you format a document before writing?
- How can you include a link to resources within your document?
- What program tools are available for you to check your accuracy of language conventions?
- What URL would you use to access a moodle account?
- What search engine do you most prefer to use in researching_____?

WRITING STANDARDS

Research to Build & Present Knowledge

Anchor: Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.

CURRENT standard: 1.4 Identify topics; ask and evaluate questions; and develop ideas leading to inquiry, investigation, and research. 2.3 Write research reports: a. Pose relevant and tightly drawn questions about the topic. b. Convey clear and accurate perspectives on the subject. c. Include evidence compiled through the formal research process (e.g., use of a card catalog, Reader's Guide to Periodical Literature, a computer catalog, magazines, newspapers, dictionaries). d. Document reference sources by means of footnotes and a bibliography.

W 6.7

7. Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.

W 7.7

7. Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.

W 8.7

7. Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.

ACADEMIC VOCABULARY/ COGNATES

• bibliography	bibliografía
• generate	generar
• inquiry	
• internet search	
• investigation	investigación
• key words	
• precise	preciso
• project	proyecto
• research	
• site source	
• synthesize	sintetizar

ESSENTIAL SKILLS/CONCEPT

- Know steps of an investigation
- Know how to use computer publishing software
- Know how to format and design page layouts
- Know how to use internet search engines
- Know how to embed links into a document
- Know how to research a topic using the internet
- Know how to create a bibliography
- Be able to locate resources: online, newspaper, library books, interviews, magazines, speakers

TEACHING NOTES AND STRATEGIES

SBAC Claim # 4: Conduct Research

QUESTIONS STEMS

- If you need information on ____ you could type which key words?
- You run a key word search on the internet and it comes up with several articles on the subject, which would you check out first? Why?
- What question does your essay/report answer?
- Which thesis statement is the best for this essay?
- Which bibliography entry is cited correctly?
- How do you cite a bibliography entry for a _____?

WRITING STANDARDS

Production & Distribution of Writing

Anchor: Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.

CURRENT standard: 1.5 Give credit for both quoted and paraphrased information in a bibliography by using a consistent and sanctioned format and methodology for citations.

W 6.8

8. Gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources.

W 7.8

8. Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation..

W 8.8

8. Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

ACADEMIC VOCABULARY/

COGNATES

- | | |
|------------------------|--------------|
| • bibliography | bibliografía |
| • credibility | credibilidad |
| • citation | citación |
| • digital source | |
| • paraphrase | parafrasear |
| • plagiarism | plagio |
| • quotation marks | cotizaciones |
| • quote | |
| • relevant (pertinent) | pertinente |
| • research | |
| • source | |
| • summarize | resumir |

ESSENTIAL SKILLS/CONCEPT

- Know how to gather relevant information from digital sources.
- Know how to gather relevant information from multiple print sources.
- Know how to assess the credibility of each source
- Know how to assess the accuracy of each source
- Know how to quote/paraphrase data without plagiarizing
- Be able to create a bibliography using a standard format for citation
- Create a bibliography

TEACHING NOTES AND STRATEGIES

SBAC Claim # 2: Write effectively

SBAC Claim # 4: Conduct Research

QUESTIONS STEMS

- How do you know that the source is credible?
- How do you know that data is accurate?
- What standard format did you use when citing sources for your bibliography?
- How do you site a digital source?
- How is a digital source cited differently than a printed source?
- Summarize the information found in these data.
- What can you conclude from the data?

WRITING STANDARDS

Production & Distribution of Writing

Anchor: Draw evidence from literary or informational texts to support analysis, reflection, and research.

CURRENT standard: 2.2 Write responses to literature: a. Develop interpretations exhibiting careful reading, understanding, and insight. b. Organize interpretations around several clear ideas, premises, or images from the literary work. c. Justify interpretations through sustained use of examples and textual evidence.

W 6.9

9. Draw evidence from literary or informational texts to support analysis, reflection, and research.
- Apply grade 6 Reading standards to literature (e.g., "Compare and contrast texts in different forms or genres [e.g., stories and poems; historical novels and fantasy stories] in terms of their approaches to similar themes and topics").
 - Apply grade 6 Reading standards to literary nonfiction (e.g., "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").

W 7.9

9. Draw evidence from literary or informational texts to support analysis, reflection, and research.
- Apply grade 7 Reading standards to literature (e.g., "Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history").
 - Apply grade 7 Reading standards to literary nonfiction (e.g., "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").

W 8.9

9. Draw evidence from literary or informational texts to support analysis, reflection, and research.
- Apply grade 8 Reading standards to literature (e.g., "Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new").
 - Apply grade 8 Reading standards to literary nonfiction (e.g., "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").

ACADEMIC VOCABULARY/ COGNATES

- | | |
|----------------------|---------------------------|
| • analyze | analizar |
| • compare/contrast | comparar/
contrastar |
| • draw evidence | |
| • evaluate | evaluar |
| • historical account | |
| • reflect/reflection | reflexionar/
reflexión |
| • relevant | pertinente |
| • research | |
| • sound reasoning | |
| • sufficient | suficiente |
| • support | |
| • trace | |

ESSENTIAL SKILLS/CONCEPT

- Draw evidence from a literary/informational text
- Analyze information & be able to support your analysis
- Be able to synthesize information and reflect
- Compare & contrast fictional portrayal of time place, or character and historical account of the same period
- Understand how authors of fiction use or alter history
- Know how to trace the argument and specific claims in a text
- Know how to evaluate the argument and specific claims in the text.

TEACHING NOTES AND STRATEGIES

SBAC Claim # 2: Write effectively
SBAC Claim # 4: Conduct Research

QUESTIONS STEMS

- How does the author portray the character? Give examples.
- How does this portrayal compare to the historical accounts of the character?
- What evidence do you have to support your answer?
- How does the author alter the time and place of events to support his argument?
- What evidence do you have to support the author's argument/claim that _____?
- Is there relevant and sufficient evidence to support the claim? If so, what?

WRITING STANDARDS

Range of Writing

Anchor: 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.

CURRENT standard: not applicable

W 6.10

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.

W 7.10

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.

W 8.10

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.

ACADEMIC VOCABULARY/

COGNATES

- | | |
|---------------|-----------|
| • Reflection | reflexión |
| • revision | revisión |
| • rough draft | |
| • editing | |
| • summary | resumen |

ESSENTIAL SKILLS/CONCEPT

- Understand the purpose for writing
- Understand and address the audience
- Craft a clear, concise thesis statement
- Write well-constructed sentences
- Craft well written paragraphs
- Incorporate appropriate transitions to create cohesion and clarify relationships among ideas and concepts.
- Edit for language conventions
- Write a strong conclusion that supports ideas presented in the writing

TEACHING NOTES AND STRATEGIES

No applicable

QUESTIONS STEMS

- What is the purpose of this writing?
- Who is the audience?
- Identify the thesis statement
- Is the thesis statement supported by evidence that can be traced throughout the writing?
- The transition _____ could be replaced by _____.
- Could additional revisions be made? Where?
- How could the sentence _____ be revised?
- How does the conclusion reflect the thesis? Give examples.

SPEAKING & LISTENING

The following standards offer a focus for instruction each year to help ensure that students gain adequate mastery of a range of skills and applications. *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.*

Comprehension & Collaboration

Anchor: 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.

CURRENT standard: 1.3 Respond to persuasive messages with questions, challenges, or affirmations. 2.1 Deliver narrative presentations: a. Establish a context, standard plot line (having a beginning, conflict, rising action, climax, and denouement), and point of view. b. Describe complex major and minor characters and a definite setting. c. Use a range of appropriate strategies, including dialogue, suspense, and naming of specific narrative action (e.g., movement, gestures, expressions). 2.2 Deliver oral summaries of articles and books: a. Include the main ideas of the event or article and the most significant details. b. Use the student's own words, except for material quoted from sources. c. Convey a comprehensive understanding of sources, not just superficial details. 2.3 Deliver research presentations: a. Pose relevant and concise questions about the topic. b. Convey clear and accurate perspectives on the subject. c. Include evidence generated through the formal research process (e.g., use of a card catalog, Reader's Guide to Periodical Literature, computer databases, magazines, news-papers, dictionaries). d. Cite reference sources appropriately. 2.4 Deliver persuasive presentations: a. State a clear position or perspective in support of an argument or proposal. b. Describe the points in support of the argument and employ well articulated evidence.

SL 6.1

1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacherled) with diverse partners on *grade 6 topics, texts, and issues*, building on others' ideas and expressing their own clearly.
 - a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.
 - b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.
 - c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.
 - d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.

SL 7.1

1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacherled) with diverse partners on *grade 7 topics, texts, and issues*, building on others' ideas and expressing their own clearly.
 - a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.
 - b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.
 - c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.
 - d. Acknowledge new information expressed by others and, when warranted, modify their own views.

SL 8.1

1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacherled) with diverse partners on *grade 8 topics, texts, and issues*, building on others' ideas and expressing their own clearly.
 - a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.
 - b. Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed.
 - c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas.
 - d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.

SPEAKING & LISTENING

ACADEMIC VOCABULARY/

COGNATES

- acknowledge
- collegial colegiado
- elicit
- evidence
- explicit explicito
- modify modificar
- pose/probe
- reflect reflexionar
- research
- warranted

ESSENTIAL SKILLS/CONCEPT

- Prepare for collaborative discussions
- Know how to incorporate evidence or information into the discussion which is relevant to the topic
- Know the rules for participating in a discussion
- Assign and assume roles in the discussion
- Set goals and deadlines, then track progress
- Pose and respond to questions posed by others
- Make relevant comments that help return the discussion to the topic
- Be willing to acknowledge new information expressed by others
- Be willing to modify your own views based on the comments and information of others

TEACHING NOTES AND

STRATEGIES

SBAC Claim # 3: Employ effective speaking and listening skills.

SBAC Claim # 5: Use oral and written language skillfully

QUESTIONS STEMS

- How did you prepare for today's discussion?
- What are some questions you might ask during the discussion?
- Based on what you read, what might you want to discuss more deeply with your group?
- What are some rules that help make the discussion collegial?
- What is your role in the discussion?
- What are the specific goals of the discussion and long do we have to meet them?
- How will we track the progress?
- How will you contribute to the progress of the group?
- Reflect on what you heard, what ideas can you add to the discussion?
- Have your partners said anything that made you change your ideas? Did you acknowledge them?
- Use this language frame: I agree/disagree with what you said
- Use this language frame: In addition to what _____ said, I think...

SPEAKING & LISTENING

Comprehension & Collaboration

Anchor: Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.

CURRENT standard: 1.8 Analyze the effect on the viewer of images, text, and sound in electronic journalism; identify the techniques used to achieve the effects in each instance studied.

SL 6.2

2. Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.

SL 7.2

2. Analyze the main ideas and supporting details presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how the ideas clarify a topic, text, or issue under study.

SL 8.2

2. Analyze the purpose of information presented in diverse media and formats (e.g., visually, quantitatively, orally) and evaluate the motives (e.g., social, commercial, political) behind its presentation.

ACADEMIC VOCABULARY/ COGNATES

- | | |
|----------------------|------------------------|
| • analyze | analizar |
| • clarify | aclarar |
| • diverse | diverso |
| • formats | formatos |
| • main ideas | |
| • orally | oralmente |
| • quantitatively | cuantitativamente |
| • supporting details | |
| • visually | visualmente |
| • media | medios de comunicación |

ESSENTIAL SKILLS/CONCEPT

- Be able to identify and analyze main ideas in diverse media and formats
- Be able to identify and analyze supporting details and ideas in diverse media and formats
- Be able to explain how ideas, information, or data clarify a topic, text or issue under study

TEACHING NOTES AND STRATEGIES

SBAC Claim # 3: Employ effective speaking and listening skills.

SBAC Claim # 5: Use oral and written language skillfully

QUESTIONS STEMS

- What is the main idea of _____?
- Did you evaluate how those ideas are presented in the different media? Is the message the same?
- How does using visual media/formats help clarify the ideas within a topic of study?
- Which format or media made the topic easier for you to understand?
- What were some of the supporting details presented?
- Why would presenting ideas and information in a quantitative format make it easier to understand?
- Did you analyze the information presented for credibility?

SPEAKING & LISTENING

Comprehension & Collaboration

Anchor: Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.

CURRENT standard: 1.1 Ask probing questions to elicit information, including evidence to support the speaker's claims and conclusions. 1.7 Provide constructive feedback to speakers concerning the coherence and logic of a speech's content and delivery and its overall impact upon the listener.

SL 6.3

3. Delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not.

SL 7.3

3. Delineate a speaker's argument and specific claims, **and attitude toward the subject**, evaluating the soundness of the reasoning and the relevance and sufficiency of the evidence.

SL 8.3

3. Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and relevance and sufficiency of the evidence and identifying when irrelevant evidence is introduced.

ACADEMIC VOCABULARY/

COGNATES

- | | |
|---------------|--------------|
| • Delineate | delinear |
| • argument | argumento |
| • attitude | actitud |
| • evaluate | evaluar |
| • soundness | |
| • reasoning | razonamiento |
| • relevance | |
| • sufficiency | suficiencia |
| • prospective | prospective |
| • valid | válido |
| • claim | reclamación |

ESSENTIAL SKILLS/CONCEPT

- Understand the difference between argument and claims
- Distinguish between sound and unsound reasoning
- Identify the attitude the speaker has toward a subject by analyzing the content and the delivery
- Understand that some claims introduced may not be relevant to the topic
- Recognize that the evidence offered may not be sufficient or substantial

TEACHING NOTES AND

STRATEGIES

SBAC Claim # 3: Employ effective speaking and listening skills.

SBAC Claim # 5: Use oral and written language skillfully

QUESTIONS STEMS

- Can you identify the speaker's reasons for making certain claims?
- Is the speaker's argument valid? Why or why not?
- Are the claims the speaker is making based on valid evidence?
- What details or evidence help you understand the speaker's attitude toward the topic?
- Are the arguments the speaker is making relevant to the topic being discussed?
- Is there enough evidence to support the speaker's claim?
- Who is the intended audience? What is their perspective?
- Is the evidence offered in the speech sufficient enough to convince you?

SPEAKING & LISTENING

Presentation of Knowledge & Ideas

Anchor: 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.

CURRENT standard: 1.5 Arrange supporting details, reasons, descriptions, and examples effectively and persuasively in relation to the audience.

SL 6.4

4. Present claims and findings (e.g., argument, narrative, informative, response to literature presentations), sequencing ideas logically and using pertinent descriptions, facts, and details and nonverbal elements to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.
- a. Plan and deliver an informative/explanatory presentation that: develops a topic with relevant facts, definitions, and concrete details; uses appropriate transitions to clarify relationships; uses precise language and domain specific vocabulary; and provides a strong conclusion.

SL 7.4

4. Present claims and findings (e.g., argument, narrative, summary presentations), emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.
- a. Plan and present an argument that: supports a claim, acknowledges counterarguments, organizes evidence logically, uses words and phrases to create cohesion, and provides a concluding statement.**

SL 8.4

4. Present claims and findings (e.g., argument, narrative, response to literature presentations), emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.
- a. Plan and present a narrative that: establishes a context and point of view, presents a logical sequence, uses narrative techniques (e.g., dialogue, pacing, description, sensory language), uses a variety of transitions, and provides a conclusion that reflects the experience.

SPEAKING & LISTENING

ACADEMIC VOCABULARY/

COGNATES

- | | |
|-------------------|-----------------------|
| • Argument | argumento |
| • counterargument | argumentos contrarios |
| • coherent | coherente |
| • cohesion | cohesión |
| • emphasizing | |
| • evidence | |
| • focused | |
| • claim | reclamación |
| • presentation | presentación |
| • manner | manera |
| • narrative | narración |
| • pertinent | pertinente |
| • presentations | presentaciones |
| • pronunciation | pronunciación |
| • salient | sobresaliente |
| • summary | resumen |

ESSENTIAL SKILLS/CONCEPT

- Plan and deliver a presentation that is
 - focused
 - coherent (delivered in a logical sequence)
 - contains pertinent facts, descriptions, examples
- Understand the difference between a claim and a finding
- Knows that an argument
 - makes and supports a claim
 - acknowledges counterarguments
 - creates cohesion by using transitional words or phrases
 - has a strong concluding statement
- Speak with an adequate volume and clear pronunciation
- Make appropriate eye contact

TEACHING NOTES AND

STRATEGIES

SBAC Claim # 3: Employ effective speaking and listening skills.

QUESTIONS STEMS

- How will you plan your presentation?
- On what evidence will you base your argument?
- Have you considered the counterarguments that might be made?
- Is your argument presented logically with sufficient and pertinent details/facts/examples?
- Was your conclusion strong? Is there something you can add to make it stronger?
- Can the listener follow your argument? Is there cohesion from beginning to end?
- Don't forget the rules for a good presentation.

SPEAKING & LISTENING

Presentation of Knowledge & Ideas

Anchor: Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.

CURRENT standard: 1.6 Support opinions with detailed evidence and with visual or media displays that use appropriate technology.

SL 6.5

5. Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.

SL 7.5

5. Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.

SL 8.5

5. Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.

ACADEMIC VOCABULARY/

COGNATES

- | | |
|-------------------|----------------------|
| • digital media | los medios digitales |
| • visual displays | |
| • claims | reclamaciones |
| • express | expresar |
| • enhance | |
| • components | componentes |
| • clarify | aclarar |
| • salient points | |

ESSENTIAL SKILLS/CONCEPT

- Select appropriate multimedia components that add meaning to the presentation
- Know what elements are needed to create visual displays
- Add photos, video, audio, animation, and text to emphasize the important points of the presentation.
- Add photos, video, audio, animation, and text to clarify the important points of the presentation.
- Be proficient in the use of digital and video cameras, PowerPoint, LCD projectors, and other presentation programs

TEACHING NOTES AND STRATEGIES

SBAC Claim # 3: Employ effective speaking and listening skills.

QUESTIONS STEMS

- How does the use of _____ enhance your presentation? The message?
- What digital media could you use to present your data clearly?
- Do the components help clarify the presentation?
- What is the message or information you want to convey to your audience?
- How would including media help the presentation?
- Does the media help underscore your important points?
- How did you decide which images you would include?
- Did you strategically place your media components and your visual displays to enhance understanding of your presentation topic?

SPEAKING & LISTENING

Presentation of Knowledge & Ideas

Anchor: Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.

CURRENT standard: 1.4 Organize information to achieve particular purposes and to appeal to the background and interests of the audience. 1.6 Use speaking techniques, including voice modulation, inflection, tempo, enunciation, and eye contact, for effective presentations.

SL 6.6

6. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.

SL 7.6

6. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.

SL 8.6

6. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.

ACADEMIC VOCABULARY/ COGNATES

- | | |
|------------------------|--------------------------|
| • context | contexto |
| • demonstrate | demostrar |
| • formal English | inglés formal |
| • appropriate | apropiado |
| • audience | audiencia |
| • formal presentation | presentación formal |
| • purpose | propósito |
| • language conventions | convenciones de lenguaje |
| • enunciation | enunciación |

ESSENTIAL SKILLS/CONCEPT

- Identify the audience and purpose
- Know the difference between informal and formal English
- Vary sentence patterns for style
- Understand and adapt the delivery to appeal to the audience
- Enunciate and speak at appropriate volume and pace.
- Use conventions of language to improve expression

TEACHING NOTES AND STRATEGIES

SBAC Claim # 3: Employ effective speaking and listening skills.

QUESTIONS STEMS

- What is the purpose for your speech?
- Are you trying to persuade or convince your audience?
- Who is the audience?
- Are you delivering a formal presentation?
- Will you need formal or informal English? Why?
- Are there places where you can substitute more precise engaging language to keep the listeners interested?
- How is your selection of word choice going to impact your presentation?
- How will you engage the listeners and keep them interested?
- How will you emphasize the important points?

LANGUAGE STANDARDS

The following standards for grades K–5 offer a focus for instruction each year to help ensure that students gain adequate mastery of a range of skills and applications. *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.* Beginning in grade 3, skills and understandings that are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking are marked with an asterisk (*).

Conventions of Standard English

Anchor: Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

CURRENT standard: 1.1 Place modifiers properly and use the active voice. 1.3 Identify all parts of speech and types and structure of sentences.

L 6.1

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
 - a. Ensure that pronouns are in the proper case (subjective, objective, possessive).
 - b. Use **all pronouns, including** intensive pronouns (e.g., *myself, ourselves*), **correctly**.
 - c. Recognize and correct inappropriate shifts in pronoun number and person.*
 - d. Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).*
 - e. Recognize variations from standard English in their own and others’ writing and speaking, and identify and use strategies to improve expression in conventional language.*

L 7.1

1. **Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.**
 - a. **Explain the function of phrases and clauses in general and their function in specific sentences.**
 - b. **Choose among simple, compound, complex, and compound-complex sentences to signal differing relationships among ideas.**
 - c. **Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.***

L 8.1

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
 - a. Explain the function of verbals (gerunds, participles, infinitives) in general and their function in particular sentences.
 - b. Form and use verbs in the active and passive voice.
 - c. Form and use verbs in the indicative, imperative, interrogative, conditional, and subjunctive mood.
 - d. Recognize and correct inappropriate shifts in verb voice and mood.*

LANGUAGE STANDARDS

ACADEMIC VOCABULARY/

COGNATES

- conventions convenciones
- subjective case caso subjetivo
- objective case caso objetivo
- possessive case
- intensive pronouns pronombres intensivos
- vague /ambiguous antecedents
antecedentes vagos/ ambiguos

ESSENTIAL SKILLS/CONCEPT

- Know and correctly use all parts of speech (noun, pronoun, verb, adverb, adjective, etc.)
- Identify and correctly use phrases and clauses
- Identify and correctly use simple sentences
- Identify and correctly use compound sentences
- Identify and correctly use complex sentences
- Identify and correctly use compound-complex sentences
- Identify and correctly use (place) modifiers
- Recognize variations from standard English

TEACHING NOTES AND STRATEGIES

SBAC Claim # 2: Write effectively.

QUESTIONS STEMS

- What is a phrase? How does it differ from clause?
- What is an independent clause? What is a dependent clause? Which is the same as a simple sentence?
- What is a compound sentence?
- Name the words that are used to connect two independent clauses.
- What is a complex sentence? How does it differ from a compound sentence?
- What types and how many clauses are used in a compound-complex sentence?
- Is the position of the modifier correct? What word is being modified?
- What is a dangling modifier?
- In what way does the passage deviate from conventional use?

LANGUAGE STANDARDS

Conventions of Standard English

Anchor: Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

CURRENT standard: 1.4 Demonstrate the mechanics of writing (e.g., quotation marks, commas at end of dependent clauses) and appropriate English usage (e.g., pronoun reference). 1.5 Identify hyphens, dashes, brackets, and semicolons and use them correctly. 1.5 Use correct capitalization. 1.7 Spell derivatives correctly by applying the spellings of bases and affixes.

L 6.2

2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
- Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.*
 - Spell correctly.

L 7.2

2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
- Use a comma to separate coordinate adjectives (e.g., *It was a fascinating, enjoyable movie but not He wore an old[,] green shirt*).
 - Spell correctly.

L 8.2

2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
- Use punctuation (comma, ellipsis, dash) to indicate a pause or break.
 - Use an ellipsis to indicate an omission.
 - Spell correctly.

ACADEMIC VOCABULARY/ COGNATES

- capitalization
- punctuation puntuación
- nonrestrictive
- parenthetical elements
- phrases frases
- complete sentences
- run-on sentence
- dash
- parentheses

ESSENTIAL SKILLS/CONCEPT

- Use commas to separate coordinate adjectives
- Punctuate correctly
- Spell correctly

TEACHING NOTES AND STRATEGIES

SBAC Claim # 2: Write effectively.

QUESTIONS STEMS

- What are coordinate adjectives? How do you correctly punctuate coordinate adjectives in a sentence?
- What is the correct spelling of this word?
- Are standard English conventions correctly demonstrated?
- What might the author/you do to address conventional errors and improve clarity?

LANGUAGE STANDARDS

Knowledge of Language

Anchor: 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.

CURRENT standard: not applicable

L 6.3

3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.
- Vary sentence patterns for meaning, reader/listener interest, and style.*
 - Maintain consistency in style and tone.*

L 7.3

3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.
- Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.*

L 8.3

3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.
- Use verbs in the active and passive voice and in the conditional and subjunctive mood to achieve particular effects (e.g., emphasizing the actor or the action; expressing uncertainty or describing a state contrary to fact).

ACADEMIC VOCABULARY/ COGNATES

- sentence variety
- sentence structure
- precise preciso
- concise conciso
- redundant

ESSENTIAL SKILLS/CONCEPT

- Recognize and use a variety of sentence patterns
- Identify and use appropriate language to address audience
- Express ideas precisely and concisely

TEACHING NOTES AND STRATEGIES

SBAC Claim # 5: Use oral and written language skillfully

QUESTIONS STEMS

- What sentence patterns are present/absent in this piece (essay/presentation/passage)?
- Does the piece address the needs/interests of the audience?
- How can you more precisely express this idea?
- Are any of the words or sentences used redundant? What words can be removed without affecting the message?

LANGUAGE STANDARDS

Vocabulary Acquisition and Use

Anchor: 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.

CURRENT standard: 1.2 Use knowledge of Greek, Latin, and Anglo-Saxon roots and affixes to understand content-area vocabulary. 1.3 Clarify word meanings through the use of definition, example, restatement, or contrast.

L 6.4

4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 6 reading and content*, choosing flexibly from a range of strategies.
- Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.
 - Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., *audience, auditory, audible*).
 - Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.
 - Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).

L 7.4

4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 7 reading and content*, choosing flexibly from a range of strategies.
- Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.
 - Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., *belligerent, bellicose, rebel*).
 - Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech **or trace the etymology of words.**
 - Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).

L 8.4

4. Determine or clarify the meaning of unknown and multiple-meaning words or phrases based on *grade 8 reading and content*, choosing flexibly from a range of strategies.
- Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.
 - Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., *precede, recede, secede*).
 - Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech **or trace the etymology of words.**
 - Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).

LANGUAGE STANDARDS

ACADEMIC VOCABULARY/

COGNATES

- multiple meaning
- context clues
- function función
- part of speech
- root word
- affix afijos
- prefix prefijo
- suffix sufijos
- consult consultar
- reference materials materiales de referencia
- dictionary diccionario
- thesauruses tesauo
- glossaries glosarios
- pronunciation pronunciación
- precise meaning
- synonym sinónimo
- etymology etimología
- verify verificar
- preliminary preliminar
- determination determinación
- inferred meaning

ESSENTIAL SKILLS/CONCEPT

- Use context clues to derive word meaning
- Use Greek and Latin affixes and roots to derive word meaning
- Use reference materials to derive word meanings
- Use reference materials to determine correct pronunciation of words
- Trace the etymology of words
- Verify word meaning

TEACHING NOTES AND

STRATEGIES

SBAC Claim # 5: Use oral and written language skillfully

QUESTIONS STEMS

- Based upon the use of the word in the sentence, what can you deduce the word _____ means?
- Does the positioning of the word _____ assist in determining meaning? Is an appositive clue provided?
- Do you recognize a familiar word part (affix or root) in the word? What meaning does the affix/root provide?
- What reference tool would best assist you in determining the pronunciation of a word, its meaning, or its part of speech?
- What is the origin of the word? Did it derive from another language?
- Has the meaning/use of the word _____ changed over time? How?
- What tools or strategies can you use to verify the meaning of an unknown word/phrase encountered?

LANGUAGE STANDARDS

Knowledge of Language

Anchor: Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.

CURRENT standard: 1.1 Identify idioms, analogies, metaphors, and similes in prose and poetry CA 9th grade standard..

L 6.5

5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
- Interpret figures of speech (e.g., personification) in context.
 - Use the relationship between particular words (e.g., cause/effect, part/whole, item/category) to better understand each of the words.
 - Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., stingy, scrimping, economical, unwasteful, thrifty).

L 7.5

5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
- Interpret figures of speech (e.g., literary, biblical, and mythological allusions) in context.
 - Use the relationship between particular words (e.g., synonym/antonym, analogy) to better understand each of the words.
 - Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., refined, respectful, polite, diplomatic, condescending).

L 8.5

5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
- Interpret figures of speech (e.g. verbal irony, puns) in context.
 - Use the relationship between particular words to better understand each of the words.
 - Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., bullheaded, willful, firm, persistent, resolute).

ACADEMIC VOCABULARY/ COGNATES

- cause/effect causa / efecto
- connotations (associations) connotaciones
- demonstrate demostrar
- denotations (definitions) denotaciones
- distinguish distinguir
- figurative language lenguaje figurative
- interpret interpretar
- item/category categoria
- nuances

ESSENTIAL SKILLS/CONCEPT

- Interpret figurative language
- Interpret literary, biblical and mythological allusions
- Utilize word relationships to clarify meaning
- Identify the explicit/direct meaning of a word (denotation)
- Identify the secondary meaning of a word (connotation)

TEACHING NOTES AND STRATEGIES

SBAC Claim # 5: Use oral and written language skillfully

QUESTIONS STEMS

- What is meant by the figurative expression _____?
- What type of figurative language is used?
- Does the expression allude to or casually mention a character or incident in another literary text? What is the connection?
- Although very similar in meaning, how do the words slightly differ in meaning?
- What is the relationship between these words?
- What is the explicit/direct meaning of the word?
- Does the word hold a secondary meaning that differs from the dictionary definition? Is emotion associated with the meaning?

LANGUAGE STANDARDS

Knowledge of Language

Anchor: 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 considering a word or phrase important to comprehension or expression.

CURRENT standard: not applicable

L 6.6

6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

L 7.6

6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

L 8.6

6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

ACADEMIC VOCABULARY/ COGNATES

- | | |
|-------------------|--------------------|
| • acquire | adquirir |
| • academic | académico |
| • domain-specific | dominio específico |
| • comprehension | comprensión |
| • expression | expresión |

ESSENTIAL SKILLS/CONCEPT

- Identify, understand, and use general academic terms
- Identify, understand, and use domain-specific terms
- Independently build vocabulary

TEACHING NOTES AND STRATEGIES

Not applicable

QUESTIONS STEMS

- What is the meaning for the term _____?
- How would you use the academic word _____ in a sentence?
- Can you give an example of how the word _____ is used in different subject areas?
- The word _____ is specific to what subject/domain?
- Why is it important to understand the meaning of the domain-specific word _____ when studying this subject?
- What strategies do you use for identifying, understanding, and using high-utility academic words?

LANGUAGE PROGRESSIVE SKILLS, BY GRADE

The following skills, marked with an asterisk (*) in Language standards 1-3, are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking.

Standard	Grade(s)							
	3	4	5	6	7	8	9-10	11-12
L.3.1f. Ensure subject-verb and pronoun-antecedent agreement.								
L.3.3a. Choose words and phrases for effect.								
L.4.1f. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.								
L.4.1g. Correctly use frequently confused words (e.g., <i>to/too/two; there/their</i>).								
L.4.3a. Choose words and phrases to convey ideas precisely.*								
L.4.3b. Choose punctuation for effect.								
L.5.1d. Recognize and correct inappropriate shifts in verb tense.								
L.5.2a. Use punctuation to separate items in a series.*								
L.6.1c. Recognize and correct inappropriate shifts in pronoun number and person.								
L.6.1d. Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).								
L.6.1e. Recognize variations from standard English in their own and others' writing and speaking, and identify and use strategies to improve expression in conventional language.								
L.6.2a. Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.								
L.6.3a. Vary sentence patterns for meaning, reader/listener interest, and style. ¹								
L.6.3b. Maintain consistency in style and tone.								
L.7.1c. Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.								
L.7.3a. Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.								
L.8.1d. Recognize and correct inappropriate shifts in verb voice and mood.								
L.9-10.1a. Use parallel structure.								

¹Subsumed by L.7.3a

²Subsumed by L.9-10.1a

³Subsumed by L.11-12.3a

Measuring Text Complexity: Three Factors



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)

Note: More detailed information on text complexity and how it is measured is contained in Appendix A

Range of Text Types for 6-12

Students in grades 6–12 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	Drama	Poetry	Literary Nonfiction
Includes the subgenres of adventure stories, historical fiction, mysteries, myths, science fiction, realistic fiction, allegories, parodies, satire, and graphic novels	Includes <u>classical through contemporary</u> one-act and multi-act plays, both in written form and on film, <u>and works by writers representing a broad range of literary periods and cultures.</u>	Includes <u>classical through contemporary works and</u> the subgenres of narrative poems, lyrical poems, free verse poems, sonnets, odes, ballads, and epics <u>by writers representing a broad range of literary periods and cultures.</u>	Includes the subgenres of exposition, argument, and functional text in the form of personal essays, speeches, opinion pieces, essays about art or literature, biographies, memoirs, journalism, and historical, scientific, technical, or economic accounts (including digital sources) written for a broad audience

TEXT ILLUSTRATING THE COMPLEXITY, QUALITY, AND RANGE OF STUDENT READING 6-12

	Literature: Stories, Dramas, Poetry	Informational Texts: Literary Nonfiction
6-8	<ul style="list-style-type: none"> • <i>Little Women</i> by Louisa May Alcott (1869) • <i>The Adventures of Tom Sawyer</i> by Mark Twain (1876) • "The Road Not Taken" by Robert Frost (1915) • <i>The Dark Is Rising</i> by Susan Cooper (1973) • <i>Dragonwings</i> by Laurence Yep (1975) • <i>Roll of Thunder, Hear My Cry</i> by Mildred Taylor (1976) 	<ul style="list-style-type: none"> • "Letter on Thomas Jefferson" by John Adams (1776) • <i>Narrative of the Life of Frederick Douglass, an American Slave</i> by Frederick Douglass (1845) • "Blood, Toil, Tears and Sweat: Address to Parliament on May 13th, 1940" by Winston Churchill (1940) • <i>Harriet Tubman: Conductor on the Underground Railroad</i> by Ann Petry (1955) • <i>Travels with Charley: In Search of America</i> by John Steinbeck (1962)
9-10	<ul style="list-style-type: none"> • <i>The Tragedy of Macbeth</i> by William Shakespeare (1592) • "Ozymandias" by Percy Bysshe Shelley (1817) • "The Raven" by Edgar Allan Poe (1845) • "The Gift of the Magi" by O. Henry (1906) • <i>The Grapes of Wrath</i> by John Steinbeck (1939) • <i>Fahrenheit 451</i> by Ray Bradbury (1953) • <i>The Killer Angels</i> by Michael Shaara (1975) 	<ul style="list-style-type: none"> • "Speech to the Second Virginia Convention" by Patrick Henry (1775) • "Farewell Address" by George Washington (1796) • "Gettysburg Address" by Abraham Lincoln (1863) • "State of the Union Address" by Franklin Delano Roosevelt (1941) • "Letter from Birmingham Jail" by Martin Luther King, Jr. (1964) • "Hope, Despair and Memory" by Elie Wiesel (1997)
11-CCR	<ul style="list-style-type: none"> • "Ode on a Grecian Urn" by John Keats (1820) • <i>Jane Eyre</i> by Charlotte Brontë (1848) • "Because I Could Not Stop for Death" by Emily Dickinson (1890) • <i>The Great Gatsby</i> by F. Scott Fitzgerald (1925) • <i>Their Eyes Were Watching God</i> by Zora Neale Hurston (1937) • <i>A Raisin in the Sun</i> by Lorraine Hansberry (1959) • <i>The Namesake</i> by Jhumpa Lahiri (2003) 	<ul style="list-style-type: none"> • <i>Common Sense</i> by Thomas Paine (1776) • <i>Walden</i> by Henry David Thoreau (1854) • "Society and Solitude" by Ralph Waldo Emerson (1857) • "The Fallacy of Success" by G. K. Chesterton (1909) • <i>Black Boy</i> by Richard Wright (1945) • "Politics and the English Language" by George Orwell (1946) • "Take the Tortillas Out of Your Poetry" by Rudolfo Anaya (1995)

Note: Given space limitations, the illustrative texts listed above are meant only to show individual titles that are representative of a range of topics and genres. (See Appendix B for excerpts of these and other texts illustrative of grades 6–12 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.

MATHEMATICS STANDARDS

INTRODUCTION

Toward greater focus and coherence

Mathematics experiences in early childhood settings should concentrate on (1) number (which includes whole number, operations, and relations) and (2) geometry, spatial relations, and measurement, with more mathematics learning time devoted to number than to other topics. Mathematical process goals should be integrated in these content areas.

—National Research Council, 2009

The composite standards [of Hong Kong, Korea and Singapore] have a number of features that can inform an international benchmarking process for the development of K–6 mathematics standards in the U.S. First, the composite standards concentrate the early learning of mathematics on the number, measurement, and geometry strands with less emphasis on data analysis and little exposure to algebra. The Hong Kong standards for grades 1–3 devote approximately half the targeted time to numbers and almost all the time remaining to geometry and measurement.

— Ginsburg, Leinwand and Decker, 2009

Because the mathematics concepts in [U.S.] textbooks are often weak, the presentation becomes more mechanical than is ideal. We looked at both traditional and non-traditional textbooks used in the US and found this conceptual weakness in both.

— Ginsburg et al., 2005

There are many ways to organize curricula. The challenge, now rarely met, is to avoid those that distort mathematics and turn off students.

— Steen, 2007

For over a decade, research studies of mathematics education in high-performing countries have pointed to the conclusion that the mathematics curriculum in the United States must become substantially more focused and coherent in order to improve mathematics achievement in this country. To deliver on the promise of common standards, the standards must address the problem of a curriculum that is “a mile wide and an inch deep.” These Standards are a substantial answer to that challenge.

It is important to recognize that “fewer standards” are no substitute for focused standards. Achieving “fewer standards” would be easy to do by resorting to broad, general statements. Instead, these Standards aim for clarity and specificity.

Assessing the coherence of a set of standards is more difficult than assessing their focus. William Schmidt and Richard Houang (2002) have said that content standards and curricula are coherent if they are:

*articulated over time as a sequence of topics and performances that are logical and reflect, where appropriate, the sequential or hierarchical nature of the disciplinary content from which the subject matter derives. That is, what and how students are taught should reflect not only the topics that fall within a certain academic discipline, **but also the key ideas** that determine how knowledge is organized and generated within that discipline. This implies that “to be coherent,” a set of content standards must evolve from particulars (e.g., the meaning and operations of whole numbers, including simple math facts and routine computational procedures associated with whole numbers and fractions) to deeper structures inherent in the discipline. These deeper structures then serve as a means for connecting the particulars (such as an understanding of the rational number system and its properties). (emphasis added)*

These Standards endeavor to follow such a design, not only by stressing conceptual understanding of key ideas, but also by continually returning to organizing principles such as place value or the laws of arithmetic to structure those ideas.

In addition, the “sequence of topics and performances” that is outlined in a body of mathematics standards must also respect what is known about how students learn. As Confrey (2007) points out, developing “sequenced obstacles and challenges for students...absent the insights about meaning that derive from careful study of learning, would be unfortunate and unwise.” In recognition of this, the development of these Standards began with research-based learning progressions detailing what is known today about how students’ mathematical knowledge, skill, and understanding develop over time.

MATHEMATICS STANDARDS

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.

MATHEMATICS STANDARDS

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 $7 \times 5 + 7 \times 3$, 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

Understanding mathematics

These Standards define what students should understand and be able to do in their study of mathematics. Asking a student to understand something means asking a teacher to assess whether the student has understood it. But what does mathematical understanding look like? One hallmark of mathematical understanding is the ability to justify, in a way appropriate to the student's mathematical maturity, why a particular mathematical statement is true or where a mathematical rule comes from. There is a world of difference between a student who can summon a mnemonic device to expand a product such as $(a + b)(x + y)$ and a student who can explain where the mnemonic comes from. The student who can explain the rule understands the mathematics, and may have a better chance to succeed at a less familiar task such as expanding $(a + b + c)(x + y)$. Mathematical understanding and procedural skill are equally important, and both are assessable using mathematical tasks of sufficient richness.

The Standards set grade-specific standards but do not define the intervention methods or materials necessary to support students who are well below or well above grade-level expectations. It is also beyond the scope of the Standards to define the full range of supports appropriate for English language learners and for students with special needs. At the same time, all students must have the opportunity to learn and meet the same high standards if they are to access the knowledge and skills necessary in their post-school lives. The Standards should be read as allowing for the widest possible range of students to participate fully from the outset, along with appropriate accommodations to ensure maximum participation of students with special education needs. For example, for students with disabilities reading should allow for use of Braille, screen reader technology, or other assistive devices, while writing should include the use of a scribe, computer, or speech-to-text technology. In a similar vein, speaking and listening should be interpreted broadly to include sign language. No set of grade-specific standards can fully reflect the great variety in abilities, needs, learning rates, and achievement levels of students in any given classroom. However, the Standards do provide clear signposts along the way to the goal of college and career readiness for all students.

K	1	2	3	4	5	6	7	8	HS
Counting & Cardinality									
Number & Operations Base Ten						Ratios & Proportional Relationships			Number & Quantity
	Number & Operations Fractions			The Number System					
Operations & Algebraic Thinking						Expressions & Equations			Algebra
							Functions		
Geometry									Geometry
Measurement & Data						Statistics & Probability			Statistics & Probability

Findell & Foughty (2011)

College and Career-Readiness through the Common Core State Standards for Mathematics

MATHEMATICS STANDARDS

GRADE 7 - OVERVIEW

In Grade 7, instructional time should focus on four critical areas: (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples.

1. Students extend their understanding of ratios and develop understanding of proportionality to solve single- and multi-step problems. Students use their understanding of ratios and proportionality to solve a wide variety of percent problems, including those involving discounts, interest, taxes, tips, and percent increase or decrease. Students solve problems about scale drawings by relating corresponding lengths between the objects or by using the fact that relationships of lengths within an object are preserved in similar objects. Students graph proportional relationships and understand the unit rate informally as a measure of the steepness of the related line, called the slope. They distinguish proportional relationships from other relationships.
2. Students develop a unified understanding of number, recognizing fractions, decimals (that have a finite or a repeating decimal representation), and percents as different representations of rational numbers. Students extend addition, subtraction, multiplication, and division to all rational numbers, maintaining the properties of operations and the relationships between addition and subtraction, and multiplication and division. By applying these properties, and by viewing negative numbers in terms of everyday contexts (e.g., amounts owed or temperatures below zero), students explain and interpret the rules for adding, subtracting, multiplying, and dividing with negative numbers. They use the arithmetic of rational numbers as they formulate expressions and equations in one variable and use these equations to solve problems.
3. Students continue their work with area from Grade 6, solving problems involving the area and circumference of a circle and surface area of three-dimensional objects. In preparation for work on congruence and similarity in Grade 8 they reason about relationships among two-dimensional figures using scale drawings and informal geometric constructions, and they gain familiarity with the relationships between angles formed by intersecting lines. Students work with three-dimensional figures, relating them to two-dimensional figures by examining cross-sections. They solve real-world and mathematical problems involving area, surface area, and volume of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes and right prisms.
4. Students build on their previous work with single data distributions to compare two data distributions and address questions about differences between populations. They begin informal work with random sampling to generate data sets and learn about the importance of representative samples for drawing inferences.

MATHEMATICS STANDARDS

RATIOS & PROPORTIONAL RELATIONSHIPS

ANALYZE PROPORTIONAL RELATIONSHIPS AND USE THEM TO SOLVE REAL-WORLD AND MATHEMATICAL PROBLEMS.

1. 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 $\frac{1}{2}$ mile in each $\frac{1}{4}$ hour, compute the unit rate as the complex fraction $\frac{1/2}{1/4}$ 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.
 - b. 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.

MATHEMATICS STANDARDS

THE NUMBER SYSTEM

APPLY AND EXTEND PREVIOUS UNDERSTANDINGS OF MULTIPLICATION AND DIVISION TO DIVIDE FRACTIONS BY FRACTIONS.

1. 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 0. For example, a hydrogen atom has 0 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.
 - b. Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If p and q are integers, then $-(p/q) = (-p)/q = p/(-q)$. Interpret quotients of rational numbers by describing real world contexts.
 - c. Apply properties of operations as strategies to multiply and divide rational numbers.
 - d. Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.
3. Solve real-world and mathematical problems involving the four operations with rational numbers.¹

KNOW THAT THERE ARE NUMBERS THAT ARE NOT RATIONAL, AND APPROXIMATE THEM BY RATIONAL NUMBERS.

4. Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number.
5. Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g., π^2). For example, by truncating the decimal expansion of $\sqrt{2}$, show that $\sqrt{2}$ is between 1 and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations.

MATHEMATICS STANDARDS

EXPRESSIONS & EQUATIONS

USE PROPERTIES OF OPERATIONS TO GENERATE EQUIVALENT EXPRESSIONS.

1. Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.
2. Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. For example, $a + 0.05a = 1.05a$ means that “increase by 5%” is the same as “multiply by 1.05.”

SOLVE REAL-LIFE AND MATHEMATICAL PROBLEMS USING NUMERICAL AND ALGEBRAIC EXPRESSIONS AND EQUATIONS.

3. Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making \$25 an hour gets a 10% raise, she will make an additional $\frac{1}{10}$ of her salary an hour, or \$2.50, for a new salary of \$27.50. If you want to place a towel bar $9\frac{3}{4}$ inches long in the center of a door that is $27\frac{1}{2}$ inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.
4. Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.
 - a. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p , q , and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?
 - b. Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p , q , and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. For example: As a salesperson, you are paid \$50 per week plus \$3 per sale. This week you want your pay to be at least \$100. Write an inequality for the number of sales you need to make, and describe the solutions.
5. Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that $\sqrt{2}$ is irrational.
6. Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other. For example, estimate the population of the United States as 3×10^8 and the population of the world as 7×10^9 , and determine that the world population is more than 20 times larger.

MATHEMATICS STANDARDS

GEOMETRY

DRAW, CONSTRUCT, AND DESCRIBE GEOMETRICAL FIGURES AND DESCRIBE THE RELATIONSHIPS BETWEEN THEM.

1. Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.
2. Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.
3. Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.
- 3.1 Describe how two or more objects are related in space (e.g., skew lines, the possible ways three planes might intersect).

SOLVE REAL-LIFE AND MATHEMATICAL PROBLEMS INVOLVING ANGLE MEASURE, AREA, SURFACE AREA, AND VOLUME.

4. Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.
5. Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.
6. Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.

SOLVE REAL-LIFE AND MATHEMATICAL PROBLEMS INVOLVING VOLUME OF CYLINDERS, CONES, AND SPHERES..

7. Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve realworld and mathematical problems. (Common Core Standard 8G-9)

MATHEMATICS STANDARDS

STATISTICS & PROBABILITY

USE RANDOM SAMPLING TO DRAW INFERENCES ABOUT A POPULATION.

1. Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.
2. Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.

DRAW INFORMAL COMPARATIVE INFERENCES ABOUT TWO POPULATIONS.

3. Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.
4. Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. For example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.

INVESTIGATE CHANCE PROCESSES AND DEVELOP, USE, AND EVALUATE PROBABILITY MODELS.

5. Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around $1/2$ indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.
6. Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.
7. Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.
 - a. Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected.
 - b. Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. For example, find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down. Do the outcomes for the spinning penny appear to be equally likely based on the observed frequencies?

MATHEMATICS STANDARDS

INVESTIGATE CHANCE PROCESSES AND DEVELOP, USE, AND EVALUATE PROBABILITY MODELS.

8. Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.
 - a. Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.
 - b. Represent sample spaces for compound events using methods such as organized lists, tables and tree diagrams. For an event described in everyday language (e.g., “rolling double sixes”), identify the outcomes in the sample space which compose the event.
 - c. Design and use a simulation to generate frequencies for compound events. For example, use random digits as a simulation tool to approximate the answer to the question: If 40% of donors have type A blood, what is the probability that it will take at least 4 donors to find one with type A blood?

For more information contact

