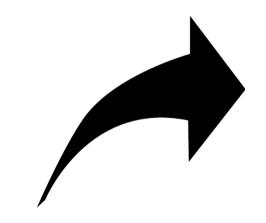
Meet the NWEA Challenge



Strategically

Resources for Strategic Teachers

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Resources

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MAKE STRATEGIC USE OF ONLINE RESOURCES

- Choose an online resource each week for students to use at home.
- Students work with a partner, and agree on which answer is best before they "click" online questions.
- > Students decide which kind of skill is most difficult for them and then use Khan Academy to work on that skill. Then they construct their own test question and give it to another student. Then they take the same kind of test question—resources in this guide include templates and stems to create questions.

Sample Test Items from NWEA http://warmup.nwea.org/warmup start educators map.html

Sample Questions from NWEA http://warmup.nwea.org/warmup start educators map.html

Minnesota School District Resource for grades 3-5 http://www.ahschools.us/Page/17389

Practice Tests from an Online Source for Math and Reading Including all Grades http://www.prepdog.org/

Rochester School District Links to Khan Academy http://www.rochester.k12.mn.us/common/pages/DisplayFile.aspx?itemId=5588106

Link to a School District posted on a CPS School website http://www.sowashco.org/ro/pages/studentlinks/map/

Sample Questions from an Online Source for Math and Reading all Grades http://www.prepdog.org/

Minnesota School District Resource for grades 3-5 http://www.ahschools.us/Page/17389

Study Recommendations from Khan Academy https://www.khanacademy.org/mappers?gclid=CNvDsdL249ICFdi6wAodY2IBrw



Strategic Teachers use Graphic Organizers to Guide and Assess

After students complete a graphic organizer, they should **pair** to **compare** and then **REPAIR**—improve their response.

SUPPOI	RT INFERENCES			COMPARE/CONTRAST
Explain inference	Information how the information	Inference		✓ Include the most important similarities and differences.
	NCE EVENTS		•	CAUSE-EFFECT-PREDICTION Complete this diagram to show cause-effect—and your prediction of what will happen—you can do this in math as well as reading!
✓ Wh	at is the most impat caused it? at changes did it			✓ Include enough information so that someone else will see your idea clearly
MAIN I Identify	I DEA the main idea an	d three supportir	ng facts.	ANALYZE THEME Complete this diagram to show how the writer communicates the theme.
	te your idea clear. oport it with impo	-		✓ Include important examples the writer uses to
				✓ Include important examples the writer uses to support the theme.



Graphic Organizers are Skills Developers

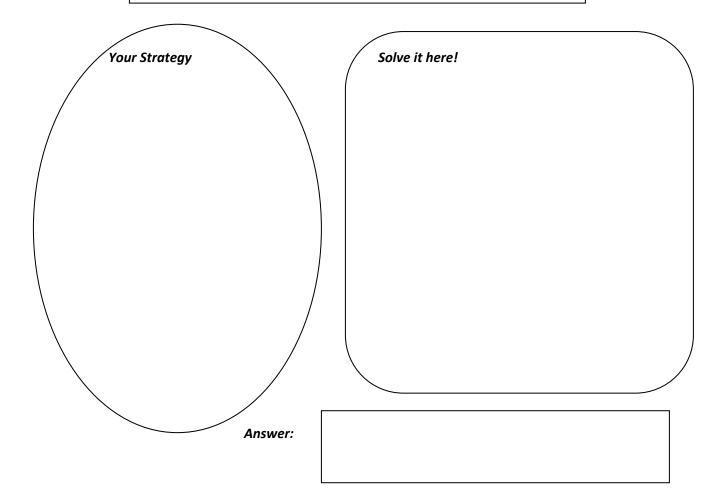
Small-scale examples you can adapt to include in your lessons.

LIST	✓ List five facts from the passage.
•	✓ List two opinions from the passage.
•	List two opinions from the passage.
•	
CLASSIFY	✓ List information about the setting in column 1.
	✓ List information about the characters in column 2.
	✓ Put the events in order on the timeline.
SEQUENCE	✓ Then predict what will happen next.
COMPANY (CONTRACT	
COMPARE/CONTRAST Similarities Differences	✓ Compare and contrast the passage you read this week with the passage you read last week.
causes	 ✓ What was the climax of the story? ✓ Write it in effect. ✓ What caused it? Note two causes in those circles.
ANALYZE/INFER RELATIONSHIPS	
INFER THE MAIN IDEA	✓ Write the Main Idea in the big rectangle.
	✓ Note two facts that support it in the boxes.
DRAW CONCLUSIONS	✓ What was the most important change?
What I Think WHY	✓ Give two reasons for your conclusion.



Math Problem Solver

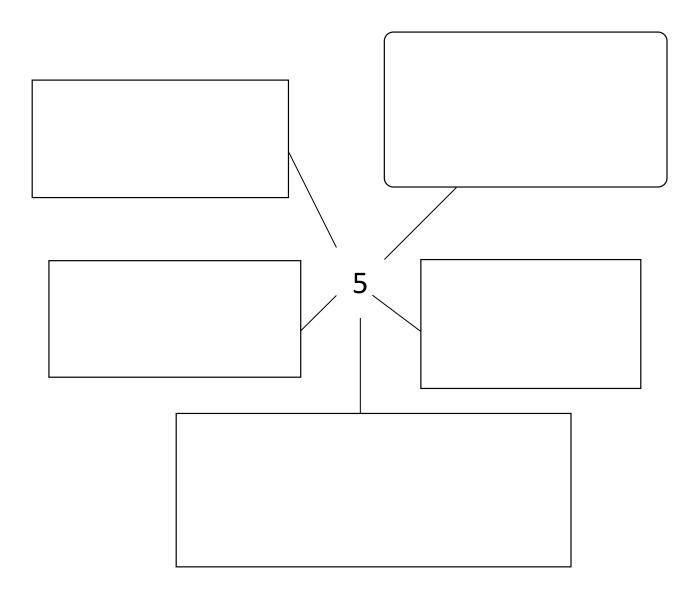
The Problem—What will you figure out?



Practice to KEEP math facts and operations current.

CCSS Math Practice Standard 2. Reason abstractly and quantitatively.

Task: Use the math you know to show five different ways to make equations that result in 5. It could be fraction equations or multi-step addition or...



It could get bigger—imagine 50 ways to make a 50...



Strategy: Use the H to make the Venn Clear

Compare and Contrast

CCSSR2—analyze relationships

Directions: Label each column with the name of each of two different characters, texts, or another kind of thing. Then list information about each one that **only describes it**. Then list ways they are alike.

Insert name		Insert name
	How they are alike	

Write to Explain

Directions: Explain what you think the most important differences are and why they are important. Then tell what you think is important to understand about how they are alike



Graphic Organizer Assessment Rubric

Usually a graphic organizer is part of a process, it is a way to organize information, an intermediate step to making a presentation or writing about a topic or situation. It may be a "pre-writer" that students use to organize their writing. So students should meet the following criteria when making a graphic organizer:

- ✓ Is it complete?
- ✓ Is it correct?
- Is it clear?

The following rubric is designed for use if the graphic organizer is the final assignment. Otherwise, it can be used as a checklist for making sure that the organization is complete and useful as students base their next steps—writing or presenting—on the information they have organized. Recommended: Students can exceed if they revise their responses to meet the level 4 requirements.

SHOW CLEAR THINKING

Rating	Requirements
4	 □ Provides information for each part of the organizer □ All information is correct □ Gives organizer a title (if it does not have one) □ Writes substantially based on the organizer—an explanation, summary, evaluation, or synthesis of what the organizer presents (complexity varies with grade level—from sentence through extended response)
	☐ Cites the source of the information (grades 5-8)
3	 □ Provides information for each part of the organizer □ All information is correct □ Gives organizer a title □ Writes concisely about the organizer
2	 □ Provides information for most parts of the organizer □ Most information is correct
1	□ Provides information for part of the organizer□ Some information is correct



What is the NWEA Reading Challenge?

text complexity

Recommendation:

Guide students to exercise skills with a text they can comprehend fluently, then guide them to apply the skill with more complex texts.

Task complexity--levels of questions

Recommendation:

Guide students to respond to a complex question with steps—for example, figure out what the question is asking; locate the relevant part of the text to respond; analyze the text; evaluate the responses.

Raising Rigor Recommendations:

- Increase text complexity and guide students to adjust their rate of reading to enable them to comprehend the more complex passages.
- Students make glossaries of literacy terms—with their own examples.
- Students explain what they will find in different genres.
- Students put the number of a question next to the part(s) of a passage they used to figure out the answer.
- Students Have students make up their own guide to NWEA test success.

ACTION PLAN FOR NWEA READING PROGRESS

This is an example of a chart you can use at the beginning of second quarter and third quarter to plan literacy priorities that align with NWEA requirements.

It's NOT a plan for each student.

It's a way to reinforce NWEA-aligned skills in your literacy curriculum **for your class**. It's a way to organize priorities for **independent reading**, **partner reading**, **learning centers**.

If you have questions about using this chart, please email teacher@depaul.edu.

Week	Reading Literature	Reading Nonfiction	Grammar/Syntax
of	List a genre. List a skill students can use independently in learning centers, individual selfselected reading.	List a genre. List a skill students can use independently in learning centers, individual self-selected reading.	List a grammar or syntax pattern for students to revisit in learning centers.

Example--Quarter Plan of NWEA-aligned literacy features.

The NWEA weekly features chart is a way to organize independent and group activities.

Th is example includes kinds of reading skills/strategies that should be applied when students read any literature or read any nonfiction.

The weekly focus can be a way for students to do **independent reading or work with** each other in learning centers.

It also includes grammar/syntax activities that will reinforce knowledge of patterns students need to know to read clearly.

Week	Reading Literature	Reading Nonfiction	Grammar/Syntax
	Folktale	History	Identify Possessives
	Infer theme	Summarize it.	Make possessives examples
	Fable	History	Identify plural nouns.
	Infer theme	What caused events?	Identify plural verbs.
	Fantasy	History	Use multi-meaning words
	Infer theme	What text features help you	in sentences to show
		understand it?	what they mean.
	Drama	History	Diagram sentences.
	Fluencyexpression	How do people feel about the events?	
	Story	History	Identify adjectives.
	How does the writer help	What is the central idea?	Add adjectives to
	you understand characters?		sentences.
	Story	Science	Identify verb tense:
	How does the narrator feel about the characters and events?	Summarize it.	past, present, future.
	Story	Science	Match prefixes and roots
	How does the writer use details to help you "see" the place.	What is the central idea?	to make words.
	Poem	Science	Match suffixes and roots
	What do you like about it? What techniques did the poet use?	What text features help you understand it?	to make words.
	Poem	Science	Make a word list:
	Read a limerick.	What details and examples	Words with Latin Roots
	Write your own!	help you understand it?	
	Poem	Science	Make a word list:
	Read a haiku.	What is the author's purpose—	Words with Latin Roots
	Draw what it means.	why did the author write it?	
	Then write your own.		

Develop Careful Reading Habits

Students need to develop abilities that help them learn more in every subject. In the left column, note a learning ability you will strengthen. In the right column, note how you will guide students to strengthen that ability. We put some examples. Make your own plan.

Reading Habit	How to Strengthen It
Students take time to think; students re-think	Students answer individually, then pair to COMPARE, then repair (choose a better answer)
Students analyze questions before they answer them.	Students restate the question in their own words. Then they "think out loud"—how will I answer it? Students pair and decide what a multiple choice question asks, then decide which is the best answer—this can be done with online questions—"pick carefully before you click"
Read carefully.	 Make the following steps part of every reading: Use context to figure out the meaning of unfamiliar words Summarize it and then identify the theme (literature) or central idea (nonfiction) Explain how the author helps the reader understand it—structure of the text, features (nonfiction), techniques.

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Strategy: Use Question stems to Focus on Skills

Comprehensive List of Text-Based Question Stems

The following question stems can be used by teachers to focus students on specific interpretation and analysis skills. The students should read the entire selection and then respond to specific questions.

Students also can construct their own questions with these stems.

Infer word meaning from ContextWhat does mean in paragraph ?
 Which word in paragraph helps the reader understand the meaning of? Which word best defines [a word] as used in this sentence? In paragraph, it says What is a? Which of these is the meaning of as used in paragraph n? Which of these is closest in meaning to as used in the passage? Which word in paragraph helps the reader know what means?
 What phrase means the opposite of as used in paragraph x? What does the word mean in paragraph x?
Use etymology (upper grade)Based on the etymology of the word, what does mean?
 Synonyms and Antonyms Which word from means the same as in paragraph? What is a synonym for in paragraph n? Which would be the best synonym for? Which is the antonym of?
 Classify Genre What is the genre of? Which term best describes this type of literature?
 What question does the article answer? What was one way that?
Analyze details Which word from paragraph shows that? Which word best describes
 Analyze a Table, Chart, Other Source in Nonfiction Which conclusion does the table support? According to the article and the map, in which place? According to the chart, which statement is true?

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How is different from? Which of these is most like and were alike because they both
 Analyze Plot What is the purpose of? [an action by a character] Which of these best describes the problem in the passage? How do's feelings change from the beginning to the end?
 Analyze Sequence and Infer Cause-Effect What do the people do last at? According to the passage, which of these happened first? According to the passage, what causes? How did change What is the most likely reason? What happened because?
 Analyze characters What is the most important thing learns about himself? How does most likely feel about? How does [a character] change from the beginning to the end of the passage? Which words best describe's character?
 Infer motive Why does feel? Why does do?
 Infer a prediction After reading the title, what should you expect to learn from this selection? After reading the passage, which is the most likely to occur?
 Structure of the Passage Which is true of paragraphs and? Which of these best describes the organizational pattern in paragraph 3? How does the author organize paragraphs x through x? Why is paragraph important in this selection? How does the author organize the information in this article?
 Which does "" suggest about the setting? Which detail explains the setting?

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•	mary Which phrase best summarizes paragraph? What is the passage mainly about? Which is the best summary of ""?
•	pret Figurative Language What does mean as used in the passage? Which of these is a metaphor? How does the narrator describe?
•	what is the main idea of paragraphs? Which sentence from paragraph expresses the main idea of the paragraph? Which of these is a theme of this story? What is another good title for this passage?
•	nguish minor and significant details Which of these is a minor detail in the passage? Which of these is an important detail that supports?
•	What is an opinion from the story? Which of these is an opinion from the passage? Which sentence best describes the author's opinion of? What statement from the passage is an opinión? Which of these statements is a fact?
Supp • •	Which sentence from the passage <i>best</i> support the idea that? How does the author support the idea that? Which claim is supported by evidence from ""?
•	or's techniques Why does the author compare to? What is the main purpose of [a text feature]? Which statement from the passage best represents 's mood in paragraph? Why did the author include in paragraph? Why does the author include these details? Why does the author include the phrase? Which literary device is used in the sentence below? What literary device is used in the text below? Which of these techniques did the author use in the story?

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Infer Mood

- What is the mood in most of the story?
- How does the author create the mood?

Infer Tone

- In paragraphs xx to xx, what is the author's tone?
- What is the tone of the passage?
- Why does the narrator refer to _____ as _____?

Identify point of view

- From which point of view is the passage told?
- In this poem, which point of view does the poet use?

Author's Purpose

- Which does the author want the reader to learn from this passage?
- What is the author's *main* purpose for comparing to ?
- What was the author's purpose in writing
- What is the most likely reason the author wrote this selection?
- Why did the author write this selection?

Infer the Author's Point of View

- With which statement would the author most likely agree?
- What is the author's point of view?

Identify Genre and Purpose of the Genre

- Which would be the best to read to learn how to
- In which book would this selection most likely be found?
- Who would be most likely to use this article?
- Which book would the author most likely have used to write this selection?
- Which of the following books would most likely contain information about ?
- This selection is an example of which kind of literature?
- What type of story is



Projects Build Independent Competence

This list is intended to inspire creative thinking by students. They can choose a task that they apply to a current text.

- 1. Advertisement for a book or a genre
- 2. Autobiography (fictional but realistic) or a character
- 3. "Before and After" portrait of a character representing changes
- 4. Biography of a character or real person, with illustrations
- 5. Cause, effect, indirect effects diagram
- 6. Debate
- 7. Dialogue (add to a story or historical event)
- 8. Diary of a character
- 9. Draw the setting
- 10. Exhibit about a time period/context
- 11. Figurative language list with illustrations
- 12. Graphic organizers with icons instead of or in addition to words
- 13. Hats for characters that communicate their traits
- 14. Illustrations for poems or stories or nonfiction text
- 15. Journal that a character or person (historical or biography) might have written
- 16. Letter—from a character to another, from you to the writer, from ... to ...
- 17. "Map" a story or history OR a science text
- 18. Nonfiction reader's guide
- 19. Novel reader's guide
- 20. Poem about or "by" a character or to communicate theme
- 21. Poem about a science topic
- 22. Poet's Toolkit—technique list with examples
- 23. Questions based on a reading
- 24. Resume of a character
- 25. Song about a science or social science topic
- 26. Story Reader's Guide—how to read a story
- 27. Nonfiction Text Writer's Guide—how to write about a topic
- 28. Symbol for a character or a theme
- 29. Timeline for a story—with pictures showing significant events
- 30. Turn a poem into an Unpoem—restate a poem in a paragraph
- 31. Venn diagram to compare and contrast literature or nonfiction
- 32. Web diagram to represent a theme or central idea—including symbols or drawings
- 33. Write the next part of a story
- 34. Write about the topic in a science or social science passage in a book you design for younger students

Genres Matter

List compiled by the Center for Urban Education (teacher.depaul.edu) based on DesCartes statements. The NWEA RIT levels are included to indicate levels at which NWEA will require students to respond to questions about texts in the genres.

NWEA INFORMATIONAL TEXT GENRES	NWEA LITERATURE GENRES
reference material 221-230	narrative 221-230
persuasive 211-220	autobiography 211-220
true story 211-220	biography 211-220
book review 211-220	folk tale 211-220
journals and specialized periodicals 211-220	poems 201-210
persuasive 211-220	folk tale 201-210
personal writing 211-220	fables 201-210
advertisements 211-220	myths 201-210
textbook 211-220	tall tale 201-210
encyclopedia 201-210	historical fiction 201-210
thesaurus 201-210	fantasy 191-200
informational magazines 191-200	story 191-200
atlas 191-200	poems 191-200
encyclopedia 191-200	fable 191-200
weather reports 191-200	memoir 191-200
advertisements 191-200	play 191-200
informational magazines 181-190	play 191-200
dictionaries 181-190	stories as "make-believe" 181-190
informal notes 181-190	story 181-190
letters 181-190	poems 181-190
journal entry 181-190	fairy tale 181-190
essay 171-180	fairy tale 171-180
newspaper 171-180	stories as "make-believe" 171-180
dictionary 171-180	stories that could happen 171-180
lists 171-180	
thank you notes 161-170 and 171-180	
dictionary 161-170	
short informational passage describing events 161-170	

What will you do to expand students' knowledge of different genres? See the next pages for ideas.

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NWEA Reading Test Vocabulary Terms CCSSR4—expand academic vocabulary. *Check the terms that fit your grade. Then build them into your lessons and activities. The next page shows how to fit them into interpreting different genres.*

alliteration	analogy	anecdote
anthology	antithesis	aphorism
archetype	assonance	author's purpose
characteristics	characterization	cliché
climax	colloquialism	conclusion
conflict	connotation	consonance
context	detail	dialogue
diary	drama	emotion
entertain	evaluate	event
evidence	exaggeration	example
excerpt	exposition (fiction)	fable
falling action	fantasy	feeling
fiction	figurative language	Figure of speech
First person	Flashback	Folk tale
Foreshadow	Formal essay	genre
historical fiction	humor	hyperbole
iambic pentameter	idiom	illustration
image	imagery	irony
legend	literary device	literary element
literature	main character	metaphor
meter	minor detail	mood
moral	myth	narrate
narrative	narrator	novel
omniscient	onomatopoeia	order of events
oxymoron	parable	paradox
paragraph	parallelism	passage
Phrase	Play	plot
plot twist	poem	poet
poetry	point of view	predict
problem and solution	pun	qualities
repetition	resolution	resolve
rhyme	rhythm	riddle
rising action	satire	scansion
scene	second person	selection
sensory detail	sequence	setting
short story	simile	sonnet
stanza	structure	summarize
summary	support	suspense
symbol	symbolism	symbolize
synecdoche	tale	tall tale
theme	third person	third person objective
third person omniscient	title	title page
tone	trait	viewpoint
voice	word play	world literature

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Analyze Craft and Structure.... CCSSR5 (writer's choices) and CCSSR6 (purpose)

Check the techniques that match your grade level. Students should be able to recognize these when they read and explain why a writer uses them.

Fiction Writers	Poets	Nonfiction Writers	Biographers
o action	o alliteration	o anecdote	A biographer
o aphorism	o assonance	argument	may use many of
archetype	○ figurative	 boldface 	the nonfiction
(advanced)	language	o captions	writer's
o cliche	o haiku	o claim	techniques as
o climax	hyperbole	o compare	well as
 colloquialism 	o iambic	o context	techniques of the
o conflict	pentameter	o contrast	story writer.
o context clue	imagery	o data	Usually, these
 descriptive details 	o irony	o debate	techniques are
o dialogue	o limerick	description	part of a
falling action	metaphor	o details	biography.
 figurative language 	o meter	o dialogue	
o flashback	o mood	o examples	 challenges
foreshadow	o narrator	o graph	 commentary
o humor	 onomatopoeia 	headings	o conflict
o hyperbole	point of view	illustrations	 context details
o idiom	repetition	o main topic	o dialogue
o imagery	o rhyme	o narrative	o mood
o irony	o rhythm	o point of view	quotations
o metaphor	o satire	 primary source 	 perspectives
o mood	 sensory detail 	quotations	o tone
o myth	o simile	o persuasive	
o narrator	o stanza	o sequence	
o onomatopoeia	o symbolism	strength of	
o parallelism	o tone	support	
o phrase	visual detail	o table	
o point of view	o voice	o text structure:	
o qualities	o word play	cause-effect compare/contrast	
o resolution		description	
rising action		problem-solution	
o scene		sequence	
o sensory detail		thesis; antithesis	
o simile		o timeline	
o stage directions		 titles and subtitles 	
o suspense		o tone	
o symbolism		o topic sentence	
o narration		o transition	
o tone		o viewpoint	
o visual detail		o voice	

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o voice				

Genre-Focused Learning Activity Examples

Poetry

Picture the **important words** in the poem—words that give the reader an image.

Analyze a poem, restate the meanings of important lines.

Make metaphor or simile chart: word in column 1; picture in column 2.

List examples of techniques the poet used. Explain how they helped communicate the

Write a poem that communicates the same theme.

Nonfiction

Use nonfiction features to identify important ideas and information. Then make a "learner's guide"—how do you learn when you read nonfiction?

Clarify structure of a text: Outline passage, identifying important ideas and supporting information. Identify central idea. Summarize the passage, stating central idea.

Analyze Cause-Effect: Make timeline of important events in a nonfiction narrative-biography or history. Explain an important choice, causes and the effects of that choice.

Integrate information: Identify relevant information from two different articles to respond to a constructed response prompt.

Compare and contrast ideas and content of two different texts on same topic.

Fiction--Elements of Fiction—Author's Choices

Sequence--make timeline of events in a story--identifying important actions. Identify causes and effects of an event.

Complete "map" a story", characters and setting; problem and solution.

Write concise **summary**. Decide which event(s) are most important and how the writer uses them to communicate the theme.

Infer the theme of the story and **support analysis with evidence** based on the author's choices. (NWEA uses main idea and also theme in different questions.)

Compare and contrast two stories with same theme.

Plan a story to communicate a theme (or main idea—NWEA term).

Fiction--Character Development

Also can apply to biography analysis.

Complete character analysis chart: how author communicates the traits and feelings of characters in the story--actions, dialogue, reactions of characters.

Add dialogue to a story—what might the characters have said at different points?

Dramatize a story, selecting events important to the character's development and adding dialogue that communicates how the central character develops.

Analyze how the author uses the character's development to support the theme of the story.

Synthesis: Write the next part of the story—tell what the character does next.

Author's Technique Examples

List Author's Techniques in the left column.

Then in the right column write an example—from a passage or one you create.

Technique	Example

You can turn this into a matching game.

Cut out the items and mix them up.

Then ask other students to match the example with the technique.



Story Reader Requirements and Resources

NWEA Skills Categories: FICTION

COMPREHEND: What does the story tell me?

- locates information
- · infers meaning
- makes predictions
- draws conclusions

ANALYZE TO INFER

The following NWEA skills relate to inferring the theme or moral of a story.

- summarizes
- infers/analyzes theme/lesson/moral/main idea of a story or other work of literature

INTERPRET:

What parts of story structure and literary techniques does the author use to communicate the theme?

- setting
- character
- plot—sequence, cause and effect, conflict/resolution
- author's viewpoint
- tone
- point of view
- dialogue
- foreshadowing
- irony
- mood
- imagery and sensory language
- figurative language
- similes and metaphors
- idioms
- symbolism

See the list of techniques for more specifics.

Strengthen Student Strategies: READING FICTION

NWEA Competence	Strategy
All competencies	 Confirm that you know what the terms meanexplain what the literature term means with an example: character trait, inference, theme, plot, other terms—see list of terms. Read a question, decide how to figure out the best response, then evaluate which answer is best.
Figure out the theme of a story	 Identify the important events. Figure out what lesson or message the author wants the reader to understand because of those events.
Infer character traits	 Identify actions a character takes. Figure out what trait those actions show the character has.
Identify techniques an author uses.	 Identify techniques used in a story. Explain how the technique an author uses helps you understand the characters, setting, or plot of a story.
Interpret complex text	 Adjust rate of reading to complexity of text. Read the story completely, then revisit it to respond to questions.



Choose an Activity to Build Story Analysis Skills

Write an ad for a book.	Write an advice letter to a character.	Make up the Autobiography of a character.
Draw pictures of the characters in the story.	Make up dialogue for a story—add it to the story.	Write the diary of a character.
Draw the setting of a story.	Design hats for characters that communicate their traits.	Illustrate a story
Write the journal of a character.	Make up "tweets" from characters about their story.	Make up questions about a story—give them to another student.
Write a song based on a story.	Write the next part of the story	Write your own story.
Turn part of a story into a play.	Turn part of a story into a cartoon.	Your turn—what's a smart activity you want to do?

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Read Stories Comprehensively	
You can use this guide to tell about a story or plan your own! CCSSR1—read carefully. CCSSR3—story elements Guide/Assess: This guide can be an activity or an assessment if completed independent	de c
Where: The Place	iy.
Who: Characters	

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What Happens

CCSSR3—identify sequence of events in a story.

Guide/Assess: This guide can be an activity or an assessment if completed independently.

1			
2			
3			

 ${\it CCSSR2-Figure\ out\ the\ message}$

What is the lesson or theme of the story?

Focus →	Think Clearly $\sqrt{}$	Learn More
	-	

I Can Summarize a Story and Infer the Theme or Message

This Graphic Organizer is an assessment if completed independently, or a guide if the teacher models. CCSSR2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.

ne characters.	
captions or write words to tell the	e plot.
What happens that is most important	How it ends
and what happens.	
me—what does the writer want w	vou to understand by reading the
	captions or write words to tell the What happens that is most important and what happens.

Strategy: Analyze Actions to Infer TRAITS.

CCSSR3—analyze relationships and traits.

Guide/Assess: This guide can be an activity or an assessment if completed independently.

Note or draw an action a character or person takes. Then tell a trait that action shows.

ACTION	

A character or person has more than one trait.

Note or draw another action that character or person takes. Tell the trait that shows.

ACTION		

Trait the action shows:

You can do this same activity to tell about yourself! Show and tell two great traits you have.

Focus → Think Clearly ✓ Learn More

STRATEGY: Assess Fiction Reading Competencies Comprehensively

This assessment can be used with any story. It emphasizes CCSSR1Read Closely, analyze relationships (CCSSR3) then make logical inferences with evidence, analyze relationships (CCSSR3), and CCSSR2, Determine theme and summarize supporting details and ideas.

1. Identify Sequence: What happened at the end?
2. Infer Character Traits: What does trait mean?
Name one character in the story
What is one trait you infer that character has?
Evidence: Explain why you think that.
3. Identify cause and effect of important event. What is an important event in the story?
Infer cause: What caused that event?
Infer effect: What happened because of that event?
4. Summarize the passage in 2 sentences. Tell what is most important.
5. Infer the message or theme: What is the theme of the story?
Why do you think that is the theme?
6. Identify techniques . List three techniques the author used. (CCSSR5)



POETRY READER RESOURCES

NWEA Poetry Interpretation

NWEA requires these abilities.

- o Analyzes poems to determine the main idea
- Compares poems to determine the common theme
- Analyzes poems to identify the theme or main idea
- o **Identifies the mood** in a poem
- Infers the author's viewpoint
- Compares content
- Analyzes the mood
- Identifies specific forms



POETRY INTERPRETATION QUESTIONS

Before/At Beginning of Reading What kinds of things does a poet do to write a good poem?

Students should read a poem at least two times so first they appreciate it and then interpret it.

After Second Reading
Identifies specific form of poem
Which kind of poem is it?
(limerick, haiku, sonnet are examples)
How do you know?
now do you know:
Analyze Author's Techniques
What technique does the writer use?
rhyme
repetition
irony
sensory language
simile
metaphor
symbolism
figurative language
How does that technique help the poet communicate
the idea or theme of the poem?
ADVANCED:
Compare this poem to another poem or to a story
with a similar theme.
How are they alike?
How are they different?



Strategy: Analyze Poems Completely

Italicized items are NWEA specifications.

First time you read a poem, enjoy it!

Note what you like about the poem. Draw a picture that shows what you see when you read it.

supporting details and ideas	ideas or themes of a text and analyze their development; summarize the key
What is the theme?	from the poem that best represents that theme or main idea?
	ents to choose the one which best represents the main idea of a poem
	eel about the topic?ewpoint (term not used) in poems.
(191) illiers author 5 vie	ewpoint (term not used) in poems.
What does the writer in	nclude that tells you that?
CCSSR4. Interpret words an figurative meanings, and an What is the mood of th	we the writer helps you understand the poem. Independent of phrases as they are used in a text, including determining technical, connotative, and alyze how specific word choices shape meaning or tone. The poem?(181)
Look for examples of th Tell what it means.	nese kinds of words and phrases. List one you find (if you find it).
simile (181)	
metaphor (201)	
image (201)	

Think More Explain how the writer helps you understand the poem. (191)

Do More Write your own poem about the same theme.

Poem Planner CCSSW4-5. Organize a poem to communicate a theme. Strategy: Plan and write a poem to learn how to read a poem! Start with your idea: What is the idea you want to tell in your poem? Draw a picture or write to explain what you want the poem to communicate. Plan it here. What examples will you put into your poem?

Next, write your poem!

Then POLISH your poem.

Choose techniques to use to make it even better.

o alliteration	o detail	o hyperbole	o metaphor
o onomatopoeia	o personification	o repetition	o rhyme
o simile	o symbol	0	0



NONFICTION READER RESOURCES

Informational Text Skills: From literal through evaluative

NWEA includes items that require students to identify and analyze text with these skills.

GET IT!

- ✓ Locate Information
- ✓ Topic and subtopics
- ✓ Describe
- ✓ Key Details
- ✓ Sequence
- ✓ Structure of the text

GET IT CLEAR!

- ✓ Infer
- ✓ Draw Conclusions
- ✓ Cause/Effect
- √ Compare/Contrast

THINK IT THROUGH!

- ✓ Summarize
- ✓ Central Idea or Main Idea
- ✓ Synthesize

EVALUATE IT!

- ✓ Author's Viewpoint/Bias
- ✓ Point of View/Purpose
- ✓ Facts vs. Opinions
- ✓ Claims and support
- ✓ Validity of Information
- ✓ Author's Style/Technique
- ✓ Persuasive Language



COMPREHENSIVE NONFICTION READER QUESTIONS

Students can respond to these questions in discussions, in notes, and in tasks.

During Reading	After Reading
Text Features What text features do you notice? How will they help you learn from this reading?	Using Glossary and Index How does a glossary help you understand the reading? How does an index help readers?
Locate information What is a fact aboutin paragraph Find in the table.	Compare and Contrast How is like? How is different from?
Locate, then Analyze Information What did you learn about the topic in the first paragraph?? What information tells you that?	Identify Opinion Look for a sentence that is an opinion. Why do you think it is an opinion?
Infer from Context What does this word mean? Why do you think that?	Analyze Examples Why did the writer include this information in paragraph? What was the writer trying to help you understand?
Paraphrase statements What is another way to say? (sentence or phrase from text)	Summarize the text: First, list important ideas you learned. Then write a short summary that tells the ideas and the most important examples.
Use Visuals How does the (chart, diagram, graph) help you understand the text?	Identify/Infer the Main Idea What is the central idea of the whole passage?
Main Idea of a Paragraph What is the main idea of this paragraph? What information supports it?	State it in a sentence. What parts of the passage support it? What is the best conclusion you can make based on what you read?

NONFICTION STRATEGIES ENABLE READERS TO USE SKILLS

Numbers in parentheses indicate applied Common Core reading standards.

Strategy	Got it	Working on It
Preview a passage. (R1 and R5)		
Establish a purpose for reading. (RF4)		
Skim a text to see major visual patterns—see how the pages are organized. (R5)		
Identify structure of text—how did the author organize it? (R2 and R5)		
Use index, glossary, table of contents. (R1 and W7)		
Adjust reading rate to level of text difficulty (R1 and R2)		
Use word structure, context, and (if available) glossary to determine meanings of academic vocabulary. (RF3 and R4)		
Locate information related to a question (R1 and W7)		
Use headings and other text features to identify ideas and locate information. (R2, R5)		
Summarize—list, then summarize important ideas and information (R2)		
Infer word meaning with evidence—support your answer with information (1 and 4)		
Look for important ideas—stop after a section and figure out the ideas it explains and the information that supports those ideas. (R2)		
Re-read to clarify ideas. (R1 and R2)		
Use graphic organizers—"web", Venn, cause-effect, other ways to analyze relationships in a text. (R2 and R3)		
Analyze relationship between author's purpose (R6) and choices of content. (R5)		
Combine information and ideas from different texts or other sources. (R7)		
Evaluate the strength of evidence to support a claim/position (R2, R5 and R8)		

Focus → Think Clearly ✓ Learn More ✓



Strategy: Assess Nonfiction Reading Comprehensively

This assessment can be used with any nonfiction.. It emphasizes CCSSR1, Read Closely, then make logical inferences with evidence, and CCSSR2, Determine theme and summarize supporting details and ideas, and CCSSR8—evaluate support for a claim.

1. What is the topic?
The topic is not the title. What is the topic that the passage explains?
2. Infer the main idea of a paragraph: What is the main idea of the first paragraph?
Why do you think that is the main idea of the first paragraph?
3. Classify Fact and Opinion: What is an opinion in the passage?
Explain: How do you know it is an opinion?
4. Identify and Analyze a Claim: What is a claim that the writer makes?
How does the writer support it?
5. Infer the central idea of a passage. What is the central or main idea of the whole passage?
Support your answer. Explain why you think that is the main idea.
6. Identify a text feature . Tell how it helps you comprehend the text.
7. Identify a technique the writer used.

NONFICTION ANALYZER: The Author's Techniques and Text Features

CCSSR5: identify writer's techniques.

Strategy: Analyze any nonfiction text to figure out how the author uses techniques to help readers comprehend the ideas.

Read an article and analyze how the writer communicated the ideas.

Here are some techniques and text features that nonfiction writers use.

Put X next to the techniques the writer used. Then on the passage put the name of the technique next to the place in the passage where the writer used it.

allusion	analogy	anecdote
argument	captions	comparison and
contrast	data	debate
description	dialogue	examples
figurative language	graph	headings
humor	illustrations	imagery
narrative	quotations	sarcasm
satire	sequence of events	table
timeline	titles and subtitles	tone

What structure di	d the writer use?
-------------------	-------------------

sequence	or time	Order

- compare and contrast
- description
- __cause-effect

THINK MORE

Write about the article you read.

Explain how the writer helped you understand the central idea or major claim through the structure of the text and the techniques the writer used.

Make some notes here. Then write your response.



NONFICTION WRITERS USE TEXT FEATURES TO COMMUNICATE IDEAS

Text Features of Nonfiction

- ✓ Diagrams
- ✓ Charts
- ✓ Graphs
- ✓ Maps
- ✓ Glossary
- ✓ Bibliography
- ✓ Author's Biography
- ✓ Index/Table of Contents
- ✓ Label
- ✓ Schedule
- ✓ Guide Words
- ✓ Headings and subheadings
- ✓ Title
- ✓ Caption
- ✓ Boldface

Focus 🗲	Think Clearly $\sqrt{\ }$	Learn More	
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Nonfiction Text Feature Examples

Guide/Assess: This guide can be an activity or an assessment if completed independently.

List text features in the left column.

Then in the right column tell how a reader would use each one.

Text Feature	How Readers Use this Feature to Comprehend a Text

You can turn this into a matching game.

Cut out the items and mix them up.

Then ask other students to match the feature with the way readers use it.



Reference Sources Support Nonfiction Learners

NWEA questions include items that ask students how to use these, items that ask which source to use to accomplish a task such as "Which would you use to write a paper about a historic event." This list includes all levels of NWEA. Some items such as the Annotated Bibliography would not be relevant to earlier grades.

- 1. Almanac
- 2. Annotated Bibliography
- 3. Dictionary
- 4. Encyclopedia
- 5. Field Guide
- 6. Formal Essay
- 7. Magazine
- 8. Manual
- 9. Newspaper article
- 10. Primary source
- 11.Report
- 12. Science Text

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Reference Sources

Guide/Assess: This guide can be an activity or an assessment if completed independently.

List Reference Sources in the left column.

Then in the right column tell how a reader would use each one.

Reference Source	How Readers Use this Reference Source

You can turn this into a matching game.

Cut out the items and mix them up.

Then ask other students to match the source with the way to use it.

lore
1

I Got It—here is my clear summary. CCSSR1—read carefully to Figure out what is important and summarize the reading (CCSSR2) Topic: **Important Words:** Word What it Means **Important Facts:**

My Summary:

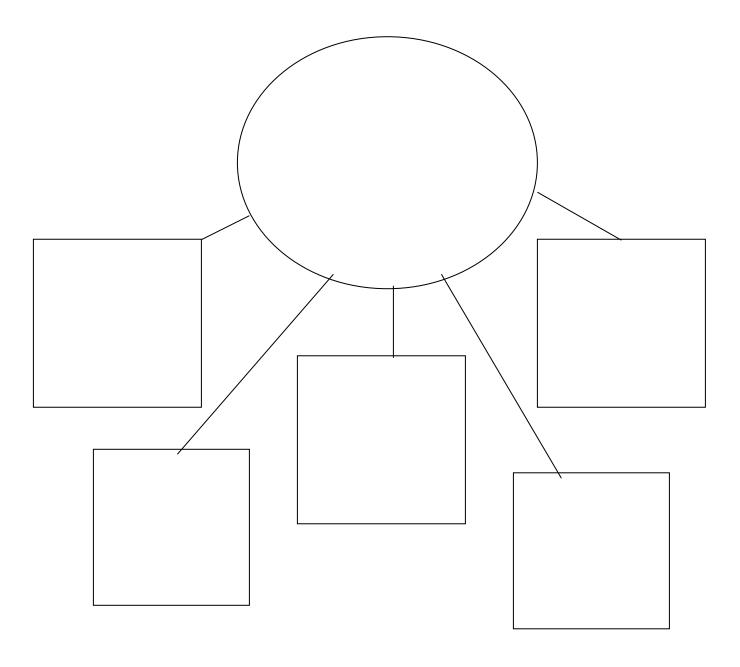
On another page, write and draw to tell and show what's important.



Central Idea Analyzer

CCSSR2. Determine central ideas or themes of a text; summarize the key supporting details and ideas.

Put the central idea in the circle. Put supporting ideas in the boxes.



Focus →	Think Clearly \checkmark	Learn More	
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Strategy: Illustrate a paragraph

CCSSR1. Read carefully/closely. CCSSR 2. Summarize.
Choose one paragraph.
Draw a picture that shows what it says.
Then show your picture to another student. Ask that student to find the paragraph you pictured. Ask them to write what they think your picture says.

Focus → Think Clearly ✓ Learn	More /
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I can classify facts and opinions.

CCSSR1—read carefully to identify important information and terms and then summarize what you have learned (CCSSR2). Evaluate author's point of view. (CCSSR6)

Put statements of facts in column 1 and statements of opinion in column 2. If a text does not include opinions then the opinion column is blank.

These are facts I found in the text.	These are opinions I found in the text.
ADVANCED TASK: This is what bias means	S:
	
This is an example of bias in this passage:	
	
If you don't find any example of bias in the part I didn't find any example of bias in the part	eassage, put X here. ssage.

Focus 🗲	Think Clearly √	Learn More	

STRATEGY: Draw pictures that show what each part of a nonfiction passage **explains.** CCSSR1—read carefully. Here is an example.

Coming to Chicago

Before there was a city of Chicago, it was a hard place to live. There were no stores or streets. It was very cold in the winter and hot in the summer. There was a lot of snow in winter, so it was hard to travel. In spring, there was a lot of rain and mud, which made it hard to travel then, too. It must have been hard to live in Chicago then. Winters were snowy. In spring the ground was muddy. There were no stores. People had to build their own homes.

•	First, unaerline the words that te o in the rectangle—draw what it	•
cabin on the river. He opened things they have and trade the Americans. Show or tell what happened. I	go Jean Baptiste Point DuSable of a trading post. A trading post is em for things they need. At first First, underline the information e here to tell what happened firs	a place where people bring he traded with Native that tells what
First	Then	Last

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Strategy: Write a heading for each part of a nonfiction text. CCSSR2—Analyze ideas

Jean Baptiste Point DuSable: Creating Chicago Possibilities

Insert the idea of each section on the line. Then summarize the reading and explain the central idea.

Jean Baptiste Pointe du Sable came to Chicago more than 220 years ago. Chicago was a very small place then--only about 350 people lived here at that time, which really was a time of great challenge. It must have been hard to live in Chicago then as the environment was challenging—each season brought problems. There were no stores or really any pathways you could use to move about easily, and it was difficult to get everything you needed to survive. He had come from a distant land, Haiti, and it's not certain how he learned about this place of possibilities and challenges.

DuSable chose to come here because it was a place where he could build a trading post and transform the area—there was no other trading post here at that time. He thought it was a place of great possibility, that it would grow and hold more and more people who would need a trading post. His trading post would become the catalyst for Chicago's progress, the starting point that brought about the beginning of the city in which millions live today.

DuSable built his trading post himself using his own labor and abilities, using local resources to construct it from wood. First he chose a strategic location, a place where the river and lake converged. That enabled people to reach the post more easily by water. Probably it was easier to get there by water than by land, since it was so muddy in spring and in winter there were deep snows. But in winter the river would be frozen, making it impassable. So it still was a struggle, in every season.

DuSable traded with the Potowatomi, Native Americans who had lived in this area for many years before the first settlements by pioneers from Europe and other places. He traded tools to them for furs, which they produced by hunting animals, using spears, arrows, and clubs until they were able to get guns and other metal tools. With the trading post came new technologies that would make it easier to hunt and live in the area.

DuSable traded with settlers, too, who were moving to this area. They brought hopes but also many needs because they moved here without all the tools and supplies they would need to build homes and survive in the challenging environment. It's not clear how people learned about Chicago as a place of possibility, but soon more and more pioneers moved to this location to settle. DuSable's vision was being realized— Chicago was becoming a destination that would keep growing.

DuSable probably knew Chicago was going to grow--he saw more settlers moving here every year, and business was an important place to all of them. DuSable sold the trading post and moved away in 1800, leaving a legacy. The trading post had been a kind of anchor of the growing community. In1968 Chicago declared DuSable the "Father of Chicago". His legacy continues today.

What is the central idea of this passage? Start by looking at the headings you wrote. Then figure out the central idea.

Integrate Grammar, Syntax, Punctuation

The lists on the next two pages include NWEA requirements.

Schedule a Grammar, Syntax, Punctuation rule to apply each week in what students read and what they write. For example, schedule "prefix week" or "subject-verb agreement" week or "Quotation Mark week".

Use the lists on the next pages to set priorities.

Week	Grammar/Syntax Rule	Punctuation Rule	



NWEA Grammar, Punctuation, Syntax Rules and Patterns

Numbers indicate RIT levels on NWEA. These are essential to all readers and writers.

161-170

capital letter

comma

contraction

exclamation mark

period

question mark

sentence fragment

171-180

apostrophe

past tense

possessive

Chooses the correct prefix (re-)

Chooses the correct prefix (un-)

Chooses the correct suffix based on context (-er)

Chooses the correct suffix based on context (-ful)

Chooses the correct suffix based on context (-less)

Chooses the correct suffix based on context (-y)

181-190

adverb

colon

compound sentence

heading

hyphen

plural

proper noun

punctuate

quotation

quotation mark

run-on sentence

semicolon

singular

subject verb agreement

tense

verb phrase

181-190 AFFIXES

Recognizes multiple meanings of homographs

Selects the correct definition of a suffix (-phobia) Selects the correct meaning of a prefix and root

word; Selects the correct meaning of a word

based on its prefix

Selects the correct word when given the

definition of the suffix

Selects the correct word when given the

definition of the suffix and root word

Uses prefixes, suffixes, and root words (meaning

of each part given) to construct a word with a

given meaning

191-200

abbreviation

clause

formal language

future tense

imperative sentence

interjection

main clause

main heading

part of speech

predicate

proofread

simple sentence

Chooses the correct word based on context and

knowledge of a suffix (-ist)

Chooses the prefix that when added to a given root word will best complete a given statement

(e.g., inter-, de-, mis-, re-, in-, dis-, tri-, pre-, il-)



Grammar, Syntax, Punctuation Rules and Patterns

201-210

active voice

adjective clause

adjective phrase

adverb clause

antecedent

capitalization

common noun

complex sentence

compound-complex sentence

conjunction

declarative sentence

dependent clause

direct object

direct quotation

gerund

independent clause

introductory sentence

irregular verb

linking verb

modifier

multiple meaning word

noun clause

noun phrase

parentheses

participial phrase

preposition

present tense

singular noun

subordinate clause

prefixes and suffixes

Analyzes similar words to determine the meaning

of a prefix

Determines the meaning of a word when a prefix of given meaning is attached to that word

Determines the meaning of an adjective from

Gives the meaning of the prefix un-

Gives the meaning of words (meaning of root

given) that contain the prefix pre-

Identifies words (containing prefixes and/or suffixes) that come from the same root or base

word

Selects the correct definition of a suffix (-phobia) Selects the correct meaning of a prefix and root

word

Selects the correct meaning of a word based on

its prefix

Selects the correct word based on the suffix and

definition

Selects the correct word when given the

definition of the suffix

Selects the correct word when given the

definition of the suffix and root word

Uses prefixes, suffixes, and root words to

construct a word with a given meaning

211-220

Comma Splice

Fragment

Participial

221-230

dash

ellipsis

infinitive

italics

predicate noun

reflective pronoun

231-240

appositive

objective pronoun

Make Your Own Grammar and Punctuation Guide

Guide/Assess: This guide can be an activity or an assessment if completed independently.

Punctuation or Grammar Feature	Your Example—Explain why to use it correctly and give an example.

Make it more challenging:

Choose a difficult rule.

Write an example that is **INCORRECT.**

Then give your example to another student to correct.



Make It Clear

Commas separate words in a series.

Punctuation helps make meaning clear Complete this punctuation toolkit to show what you know!

Our example: I saw a cat, a bat, a hat. Then I sat.
Your example:
Commas separate independent clauses joined by conjunctions.
Our example:
The dinosaur ate one bush, and then it ate a tree. Dear me!
Your example:
Commas set off introductory phrases and clauses.
Our example:
In fact, punctuation is one of the most helpful ways to make meaning clear in a poem.
Your example:

Focus → Think Clearly ✓ Learn More

Apostrophes can help people use fewer letters.
Here's our example: It's important to use apostrophes correctly.
What's your example?
Some apostrophes show possession.
Our example: Jerome's poem was full of rhyming words.
Exclamation points show importance.
Our example: Without punctuation, my poem doesn't make sense!
Your example:
Periods help people abbreviate.
E.g.: Etc., III.
Your examples:
Periods show what's over.
Our example: This is the end of the punctuation tool kit.
Your example:

Meet the NWEA Math Challenge

Your Plan to Meet the NWEA Challenge

What will you do? Check and add activities you'll do.

Know What: Math Fact Activitiematching gamevocabulary glossarytimes table practiceflash cards	S
Know How: Math Skill Activities use online math skill gamesuse online math test prepanswer question, pair, comparemake up word problemsmake up multiple choice questionplay math games	e, repair
Test Success Activitiesrank answers to a multiple-chochange a test item—substitutemake up my own test prep guimake up multiple choice questake online math test	e different numbers, then solve it ide

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SCHEDULE MATH PROGRESS

In addition to the new math that students learn, it's **important to** revisit math they mastered in the past but have not used recently. Research confirms that if the math curriculum includes "frequent cumulative review" that enables students to retain greater math competence. Among sources supporting this "mix" is the report "Assisting Students Struggling with Mathematics" of the What Works Clearinghouse, IES Practice Guide, US Department of Education.

Week	New Math	Content to Revisit/Exercise



Math Vocabulary = Content Students Need to Know to Use Skills

Strategy: Students can make their own glossary—and turn it into a matching game—word and example—including pictures.

By Third Grade

by Illia Grad		T			_
12 inches =	cylinder	hundred	non-standard	product	standard unit
1 foot	decimal	impossible	unit	pyramid	steps
12 months =	diameter	inch (in.)	number cube	quadrilatera	subtraction (–)
1 year	difference	is equal to (=)	number line	1	sum
2-	digit	kilogram (kg)	number pair	quart	survey
dimensional	distance	is greater than (>)	number	quarter	symbol
3 feet = 1	divisible	is less than (<)	pattern	quotient	symmetry/symmetrica
yard	division (÷, /)	is not equal to (≠)	number	radius/radii	[]
365 days = 1	dollars (\$)	kilometer (km)	sentence	ray	table
year	dozen	label	octagon	reasonable	tally
366 days = 1	drawn to scale	least	odd/odd	rectangle	tally chart
leap year	edge/edges	least likely	number	rectangular	temperature
3-	equal	length	operation	prism	thousand
dimensional	equation	less than	order	rectangular	time
52 weeks =	estimate/estimatio	likely	ordered pair	pyramid	ton
1 year	n ,	line	(x, y)	represents	total
7 days = 1	even/even number	line graph	ordinal	results	trapezoid
week	face/faces	line of symmetry	numbers	rhombus	triangle
a.m.	factor	line segment	ounce (oz)	right angle	triangular prism
abbreviation	farthest	long	p.m.	round down	triangular pyramid
s for days	figure	mass	pair	round up	true
and months	flips	measure	parallel	same	turns
about	folded	measurement	parallelogra	scale	twice
above	foot/feet (ft)	meter (m)	m	scale of	unit
addends	fraction	metric	pattern	numbers	unknown
addition (+)	gallon	mile (mi)	pentagon	second	unlikely
angle	gram (g)	milligram (mg)	perimeter	segment	value
area	graph	milliliter (mL)	pictograph	set	variable
average	greater	millimeter (mm)	pie graph	shape	Venn diagram
bar graph	greatest	minus	pint	side/sides	vertex/vertices
below	grid	month	place value	similar	vertical
between	group	more than	plane figure	single	volume
capacity	height	most	plus	size	week
cardinal	hexagon	most likely	point	solid figure	weight
numbers	histogram	multiply/multiplicatio	polygon	solve	wide
centimeter	horizontal	n (X)	possible	spent	width
(cm)	hour	nickel	pound (lb, #)	sphere	yard
cents (50¢ or			prediction	spinner	
\$0.50)			prism	square	
chance			probability	square	
change			probable	centimeters	
chart			probably	square	
circle			problem	pyramid	
circle graph			solving		
cone					
congruent					
coordinates					
corner					
cube					
cup					
(Source: ISBF i	10t)				

(Source: ISBE.net)

Focus → Think Clearly ✓



By Fifth Grade

acute angle least common multiple angle liter (L) approximately lowest terms arc mean (arithmetic average) base median midpoint bisect characteristic miles per hour (mph) chord mode circumference multiple column multiply/multiplication (* combination or •) composite number nonagon nth term congruent coordinate graph obtuse angle correspond order of operations cubic units per percent (%) data decimeter perpendicular degrees (°) pint (pt) degrees Celsius (°C) polygons degrees Fahrenheit portion (°F) prime number diagonals proportion diagram quart (qt) dimensions quotient dividend random divisor range elapsed time ratio (":" or "to") equilateral triangle reflections exactly regular polygon expression right angle symbol gallon (gal) right triangle greatest common rotations factor row heptagon scale drawing intersect scalene triangle intersecting lines sequence slides irregular polygon is approximately square units (2) equal to stem-and-leaf plot time zone is congruent to (≅) is parallel to (||) ton (t) is perpendicular to triangle (Δ) value of

By Eighth Grade

measure of angle adjacent alternate exterior angles minimum alternate interior angles odds altitude permutation approximate principle ascend/ascending order proportionally Pythagorean axes commission Theorem complementary quadrants compound inequality radical consecutive random convert rate corresponding angles real number decagon satisfy descend/descending scattergram order semi-circle discount sequence distinct simple interest skew divisibility domain square root down payment supplementary surface area earns factorial transversal foot (ft or ') vertical angles function x-axis hypotenuse v-axis inch (in. or ") independent inequality is greater than or equal to

is less than or equal to

(≤)

maximum

(Source: ISBE.net)

 (\bot) is similar to (~) isosceles triangle



Make Math Yours: Learn Actively

Pair, Compare, Repair

- 1. Two students solve the same problem independently.
- 2. Then they pair and compare their responses.
- 3. Then they repair—change any part of the answer that needs improvement.

Rate the Answers

- 1. Take one multiple-choice question.
- 2. Choose the **best** answer.
- 3. Then label the worst answer.
- 4. Then, yes, pair, compare, repair.

Make up a Word Problem

- 1. Think of a situation that involves math. It could be about money, measurement, any other part of math.
- 2. Make up a problem that requires someone to use skills to solve it.
- 3. Give your problem to another student.
- 4. Check that student's answer.
- 5. If it's incorrect, explain how to fix it.

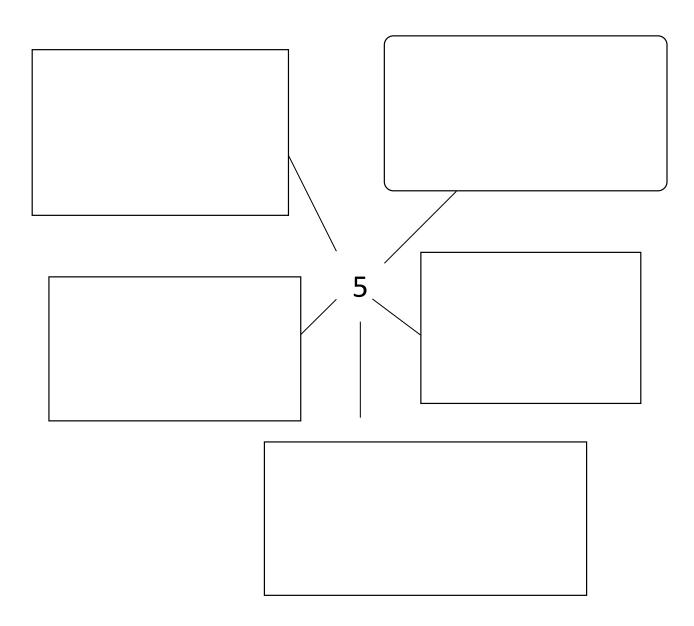
Make up a Multiple-Choice Question

- 1. Make it a word problem.
- 2. Include four answers.
- 3. Give your problem to another student.
- 4. Check that student's answer.
- 5. If it's incorrect, explain how to fix it.

Learn/Review Math Facts by USING them.

CCSS Math Practice Standard 2. Reason abstractly and quantitatively.

Task: Use the math you know to show five different ways to make equations that result in 5. It could be fraction equations or multi-step addition or...



You can do this same activity with any number!

Focus 🛨	Think Clearly $\sqrt{\ }$	Learn More
Focus ->	Think Clearly ✓	Learn More /

MATH VOCABULARY AND FACTS MATCHING GAME

Put the words, letters, or numbers you want to learn into each rectangle. Then cut them out and use them as flash-cards or to play matching games or card games.

EXAMPLE: TIME TABLE FACTS

Put facts like these on pieces of paper. Cut them out and match them.

2 x 4	8
3 x 4	12
4 x 4	16
5 x 4	20

YOU CAN MAKE YOUR OWN MATH PROBLEM GAME!

Cut paper into rectangles.

Put numbers and operation signs and words on the rectangles.
Then use them to make up problems. *This is just an example*—make YOUR OWN!

+			_	
X				
10	5	15	50	
%				



KNOW HOW: ANALYZE the problem first, THEN solve it.

The most important skill to respond to a test question is <u>reading the question</u> carefully.

Before you answer the question, ask these questions:

- 1. What is the question asking me?
- 2. What skills will I need to figure out the answer?
- 3. What information from the problem will I use?



Choose a Math Strategy

Here are some strategies to solve a math problem.

They all start with read the problem carefully to figure out what it asks.

Read it TWICE so you are sure what the problem is.

- ✓ Identify information the problem includes that you need to use to solve it.
- ✓ Notice any numbers written as words—be sure you include them in your problem solution.
- ✓ What kinds of words, numbers or shapes will answer the question—for example, will the answer be a label for an angle, a percentage, a decimal?
- ✓ Estimate what the answer will be.

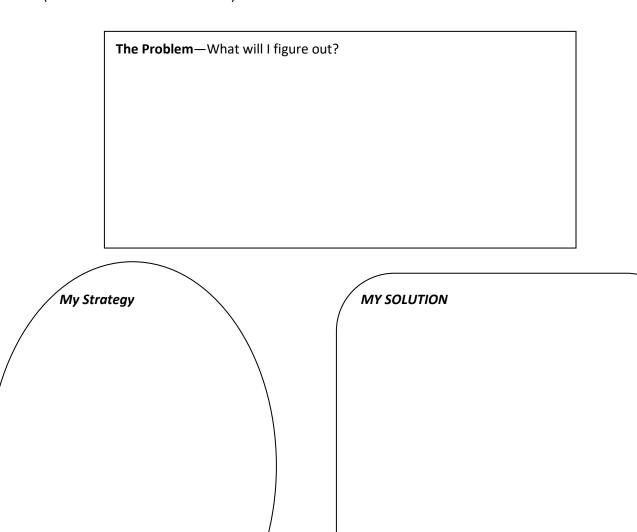
Then use a strategy you know to figure out the answer.

Here are some examples.
Choose the strategies you will use.
Add more strategies!

\circ	List information you need to use.
0	Use a model.
0	Use a rule you know.
0	Make a diagram.
0	See if it will take just one step to solve it or more steps.
0	Guess, check, then correct if I need to.
0	Look for a pattern.
0	Draw a picture so I see what the problem includes.
0	Figure out what information I need.
0	Underline the information I need and cross out the things I don't need.
0	List the steps to take.
0	Make a chart.
0	Work "backwards".
0	Think of two different ways to solve it, then choose the one you think will work
	better.
0	Write it as a number sentence.
0	

SOLVE A PROBLEM STRATEGICALLY

(CCSS Math Practice Standard 1)



My Answer:

I can solve a word problem strategically!

Math Practice Standard 1: Make sense of problems and persevere in solving them.

What is the question asking me to figure out?	
•	
How will I solve it?	
What information do I need to solve it?	

Next: Solve it!

You may complete it by yourself or... pair and share—work together to solve it

or

pair to compare—solve it yourself then compare your work with another student's

Focus →	Think Clearly √	Learn More /
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Make Your Own Multiple Choice Question

Question Maker : Write your question	here.				
				\mathbf{O}	
				•	
Write the correct answer and three ot	her possible	answers here	:		
a	C				
b	d				
Question Taker:					
Circle the best answer. Then tell why i	t's hest				
enere the best unswer. Then ten why h	i s best.				
is the best answer because					
		_			
Cross out the worst answer. Then tell	wny it's the i	worst.			
is the worst answer because	е				

MAKE YOUR OWN MATH TEST SUCCESS GUIDE

1.	How many times should you read a math word problem before you solve
	t?

2. How do you choose the best answer?

3. What do you do when a problem is difficult?

4. What is important to do when you take any test?



Choose Activities to Make More Math Progress

	1	·	
Play math games! Monopoly or any game that includes math.	Make up an online Store Make up the prices. Look at the competing online stores to set your prices. Make "specials"—coupons or sales.	Make a math multiple choice question. Write the question as a situation. Then give a few possible answers.	Make up a math game. To win the game, you need to know math facts. You can play the game as a card game or as a board game. If it's a board game, then the players would get to move ahead when they know a math fact.
Write a Number Diary. What's That? You're a Number (pick any number). Tell what happens to you during a day.	Measure Your Home. Measure windows, doorways, floor. First, estimate size. Then check your estimate. Figure out the area of different rooms.	Tell what you would buy if you had \$100. Figure out what everything would cost and how much you would have left after you bought things.	Write a page in a math textbook. Explain the math. Then give an example. Then ask a question.
Watch a sports game. Keep track of the scores for each player. Then make up math questions based on the scores.	Make a fraction book. Write about what a fraction is, how people use them, and how people can add and subtract them.	Write about your day and how numbers help you. For example, numbers tell what time it is.	Make a sports scores graph. Then explain what your graph tells about the way the teams are playing this season.
Make a Math Number Connector. What's that? You take one number and put it in the center of a page. Then write the number combinations that would make that number. For example,	Design a math museum. What will your exhibits include?	Paper Airplane Math Make a paper airplane. See how far it flies. Then change one measurement at a time; its weight, length, or width. See how those changes affect how far it goes.	Design a birdhouse. Use your measurement and geometry skills. If you can, build it!



Online Resources to Strengthen Math Skills

NWEA Online Resources

Sample Test Items from NWEA http://warmup.nwea.org/warmup start educators map.html

Study Recommendations from Khan Academy https://www.khanacademy.org/mappers?gclid=CNvDsdL249ICFdi6wAodY2IBrw

Rochester School District Links to Khan Academy http://www.rochester.k12.mn.us/common/pages/DisplayFile.aspx?itemId=5588106

Sample Questions from an Online Source for Math and Reading all Grades http://www.prepdog.org/

Minnesota School District Resource for grades 3-5 http://www.ahschools.us/Page/17389

Math Practice Resources and Games

Early Childhood Games http://www.ictgames.com/resources.html

Primary Games from Public Television

http://pbskids.org/games/math/ Math Games for Grades 3-5

http://pbskids.org/cyberchase/math-games/

Great games to practice math facts. http://www.maths-games.org

Advanced Challenges from the Museum of Math http://momath.org/activities/

General Math Skills Activity Sites

Math Hunt

With the help of the character "Number Cruncher" scour the web to find social studies and science information to help crack math problems. http://teacher.scholastic.com/mathhunt/

Math Maven's Mysteries

Use math to help crack open mystery cases http://teacher.scholastic.com/maven/

Counting/Number Activity Sites

Bobbie Bear

Use counting strategies to make as many outfits for Bobbie Bear as you can, using different colored shirts and pants.

http://illuminations.nctm.org/ActivityDetail.aspx?ID=3

Chairs

Explore the number of chairs needed when tables are arranged in a restaurant. http://illuminations.nctm.org/ActivityDetail.aspx?ID=144

Electronic Abacus

Explore an abacus model for representing numbers and performing addition.

http://illuminations.nctm.org/ActivityDetail.aspx?ID=8



Operations Activity Sites

Primary Krypto

Use five number cards and arithmetic operations to create the "target" number in this fun math game. http://illuminations.nctm.org/ActivityDetail.aspx?ID=173

Product Game

Exercise your skill with factors and multiples. http://illuminations.nctm.org/ActivityDetail.aspx?ID=29

Times Tables

Practice multiplying single-digit numbers with this interactive multiplication table.

http://illuminations.nctm.org/ActivityDetail.aspx?ID=155

Around the World in 80 Seconds

Help Maggie fly around the world. Pick addition, subtraction, multiplication, division or a mix of all four. Each question answered correctly gets Maggie to her next stop. http://teacher.scholastic.com/activities/adventure/math2.htm

Deep Sea Duel

Play a strategy game that requires you to select cards with a specified **sum** before your opponent. http://illuminations.nctm.org/ActivityDetail.aspx?ID=207

Determine the Missing Operation Study Jams

Sometimes to solve a word problem or story problem, you need to figure out which symbol to use. Follow this step-by-step strategy http://teacher.scholastic.com/activities/studyjams/math_operations/

Flashcards for Basic Arithmetic

Flashcards for all operations, organized by level. http://free-ed.net/sweethaven/Math/arithmetic/arithDrill02.asp

Operations with Signed Numbers

Use these "flash cards" to work with an endless list of signed-number problems--addition, subtraction, multiplication, and division of positive and negative numbers. http://www.free-ed.net/sweethaven/Math/arithmetic/SignedValues01 EE.asp

Order of Operations with Integers

This is a set of endless drills that build confidence with solving integer operations that involve combinations of addition, subtraction, multiplication, and division. There are four levels of difficulty. http://www.waybuilder.net/sweethaven/Math/pre-algebra/PreAlg01/ee/IntegerPrec01 EE.asp

Place Value

Rewrite numbers separating each period of place values with a comma http://www.waybuilder.net/sweethaven/Math/pre-algebra/drills/wholeNums01.asp



GEOMETRY

Proof Without Words: Pythagorean Theorem

Watch a dynamic, geometric "proof without words" of the Pythagorean Theorem.

http://illuminations.nctm.org/ActivityDetail.aspx?ID=30

Scale Factor

A common misconception is that when the dimensions of an object are doubled, the area is doubled, too. But this is not true! Use this applet to investigate how changes in the scale factor influence the ratio of perimeters and the ratio of areas between figures. http://illuminations.nctm.org/ActivityDetail.aspx?ID=176

Shape Cutter

Draw and cut shapes, then use slides, turns, and flips to move the cut pieces around.

http://illuminations.nctm.org/ActivityDetail.aspx?ID=72

Shape Sorter

Sort shapes according to their properties using Venn diagrams. http://illuminations.nctm.org/ActivityDetail.aspx?ID=34

Shape Tool

Draw, color, paste, slice, rotate, reflect, expand, and contract various shapes.

http://illuminations.nctm.org/ActivityDetail.aspx?ID=35

Tessellation Creator

Create patterns to cover the screen using regular polygons. http://illuminations.nctm.org/ActivityDetail.aspx?ID=202

Turtle Pond

Estimate length and angle measure while guiding a turtle to a pond.

http://illuminations.nctm.org/ActivityDetail.aspx?ID=83

Interactive Geometry Dictionary: Areas in Geometry

Understand and investigate the area of the rectangle, parallelogram and triangle.

http://illuminations.nctm.org/ActivityDetail.aspx?ID=21

Patch Tool

Design a pattern using geometric shapes. http://illuminations.nctm.org/ActivityDetail.aspx?ID=27

Perimeter, Area, and Volume of Common Geometric Figures

http://www.waybuilder.net/sweethaven/Math/pre-algebra/PreAlg01/ee/geometry/PreGeom01 EE.asp



GEOMETRY ONLINE RESOURCES (continued)

Angle Sums

Explore the sum of the interior angle measures for various polygons.

http://illuminations.nctm.org/ActivityDetail.aspx?ID=9

Area Tool

Investigate how changes in the base and height of trapezoids, parallelograms, and triangles affect their area.

http://illuminations.nctm.org/ActivityDetail.aspx?ID=108

Circle Tool

Compare the circumference and area of a circle to its radius and diameter.

http://illuminations.nctm.org/ActivityDetail.aspx?ID=116

Cube Nets

Examine various two-dimensional figures to determine which ones can be folded into a cube. http://illuminations.nctm.org/ActivityDetail.aspx?ID=84

Computing Pi

Compare two methods for computing pi. http://illuminations.nctm.org/ActivityDetail.aspx?ID=161

Cubes

Determine the volume of a box by filling it with cubes, rows of cubes, or layers of cubes. http://illuminations.nctm.org/ActivityDetail.aspx?ID=6

Fractal Tool

Explore iteration and patterns in shapes and numbers with fractals.

http://illuminations.nctm.org/ActivityDetail.aspx?ID=17

Geometric Solids

Manipulate various geometric solids. Color the solid to investigate properties such as the number of faces, edges, and vertices.

http://illuminations.nctm.org/ActivityDetail.aspx?ID=70



Fractions, Decimals, and Percentages Activity Sites

Concentration

Play a matching game with different representations of equivalent items — match quantities to their numerals, shapes to their names, or fractions to decimals and percents. http://illuminations.nctm.org/ActivityDetail.aspx?ID=73

Equivalent Fractions

Create equivalent fractions by shading squares and circles. http://illuminations.nctm.org/ActivityDetail.aspx?ID=80

Fraction Game

Explore relationships among fractions while playing this interactive game. http://illuminations.nctm.org/ActivityDetail.aspx?ID=18

Fractions, Fractions

This is version 2.0 of the popular fractions "flash cards." Fractions are learned by looking at a lot of examples and they are mastered by doing a lot of problems. http://edgeroamer.com/sweethaven/math/ee/fracs03.asp

Fractions Study Jams

Watch a video and take a quiz about understanding fractions http://teacher.scholastic.com/activities/studyjams/fractions/

Free Ride

Use this applet to explore fractions using the context of a bicycle and gear ratios. http://illuminations.nctm.org/ActivityDetail.aspx?ID=178

Mastering Decimal Fractions

This is a complete set of endless drills with decimal arithmetic. You can select among 24 different activities that are arranged according to type of operation and level of difficulty. http://www.waybuilder.net/sweethaven/Math/pre-algebra/Decimals01 EE.asp

Rounding Decimal Fractions

Activities for practice of rounding decimal fractions http://www.sweethaven.com/sweethaven/Math/prealgebra/PreAlg01/ee/DecRound01 EE.asp

Working with Percents

Practice percent problems, converting between decimals and percents, and determining parts and rates

http://www.waybuilder.net/sweethaven/Math/pre-algebra/PreAlg01/ee/Percent01 EE.asp



Probability Activity Sites

Adjustable Spinner

Create a spinner and examine the experimental and theoretical outcomes for a specified number of spins.

http://illuminations.nctm.org/ActivityDetail.aspx?ID=79

Fire

Simulate the spread of a wildfire using a probability applet. http://illuminations.nctm.org/ActivityDetail.aspx?ID=143

Random Drawing Tool—Individual Trials

Explore the relationship between theoretical and experimental probabilities. http://illuminations.nctm.org/ActivityDetail.aspx?ID=67

Algebra Activity Sites

Algebraic Transformations

Explore commutativity and associativity within a geometric situation.

http://illuminations.nctm.org/ActivityDetail.aspx?ID=193

Pan Balance—Expressions

Investigate the concept of equivalence by "weighing" numeric and algebraic expressions.

http://illuminations.nctm.org/ActivityDetail.aspx?ID=108

Roots and Powers

Some problems require the aid of a calculator, while others encourage the learner to work the problem "on paper."

http://www.free-ed.net/sweethaven/Math/pre-algebra/RootPow01 EE.asp

Solving Linear Equations in One Variable

A list of activities for solving linear equations in one variable for independent learners http://www.waybuilder.net/sweethaven/Math/algebra/linearEq/LinEqOne01_EE.asp



Graphing Activity Sites

Bar Grapher

Create a customized bar graph with your own data, or display a bar graph from an included set of data.

http://illuminations.nctm.org/ActivityDetail.aspx?ID=63

Box Plotter

Create a customized box plot with your own data, or display a box plot of an included set of data. http://illuminations.nctm.org/ActivityDetail.aspx?ID=77

Circle Grapher

Create a customized circle graph with your own data, or display a circle graph from an included set of data.

http://illuminations.nctm.org/ActivityDetail.aspx?ID=60

Histogram Tool

Create a customized histogram with your own data, or display a histogram from an included set of data.

http://illuminations.nctm.org/ActivityDetail.aspx?ID=78

Introduction to Graphing

Here is a selection of graphic activities, from plotting points to plotting linear equations. http://www.free-

ed.net/sweethaven/Math/GraphOps/GraphPlotters/graphing02 EE.asp

Isometric Drawing Tool

Create dynamic drawings on isometric dot paper. Draw figures using edges, faces, or cubes, and then shift, rotate, color, decompose, or view them in 2-D or 3-D. http://illuminations.nctm.org/ActivityDetail.aspx?ID=125

Line of Best Fit

Use this applet to plot a set of data and determine a line of

http://illuminations.nctm.org/ActivityDetail.aspx?ID=146

Linear Regression

Investigate a regression line and determine the effects of adding points to a scatterplot. http://illuminations.nctm.org/ActivityDetail.aspx?ID=82

Mean and Median

Investigate the mean, median, and box-and-whisker plot for sets of data that you create. http://illuminations.nctm.org/ActivityDetail.aspx?ID=160

State Data Map

Use color-coding to represent state information, such as population, area, and gasoline usage. http://illuminations.nctm.org/ActivityDetail.aspx?ID=151